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BIG RALLY II COMMUNICATION SYSTEM
TEST DATA
PHASE II
VOLUME VI

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ITT service FEDERAL ELECTRIC CORPORATION

an associate of

INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

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FEDERAL ELECTRIC CORPORATION
BIG RALLY II COMMUNICATION SYSTEM
TEST DATA
PHASE II
VOLUME VI

ESD-TDR 64-451

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DWG. NO. 6271957 A

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A ORIGINAL ISSUE

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ITT SERVICE

FEDERAL ELECTRIC CORPORATION
PARAMUS INDUSTRIAL PARK
PARAMUS, NEW JERSEY
A SUBSIDIARY OF INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

TEST DATA
PHASE II
VOLUME VI

CODE IDENT. NO.	DWG. SIZE	
14842	A	6271957 A

SCALE	FEC NO.	SHEET

OGILVIE PRESS, INC., BROOKLYN 17, N. Y. REPROVEL NO. 400M

DRAWING NUMBER 6271957 2

LIST OF MATERIALS

ITEM NO.	QTY REQD	U OF M	NOMENCLATURE OR DESCRIPTION	PART OR IDENTIFYING NO.	
			SEC IV Radio Set MN-503A Microwave	4-1 to 4-198	
			SEC V Radio Set AN/NTRC-35	5-1 to 5-8	
			SEC VI Radio Set AN/MRC-80	6-1 to 6-28	
			SEC VII Radio Set AN/MRC-85	7-1 to 7-22	
			SEC VIII Radio Set AN/FRC-39	8-1 to 8-19	
			SEC IX Power Generating System	9-1 to 9-72	
			SEC X Miscellaneous	10-1 to 10-3	

PREPARED BY SEE SHEET ONE DATE

CHECKED BY DATE

CODE IDENT. NO. 14842

DWG SIZE A

LM 6271957A

FEC NO.

SHEET

ITT SERVICE FEDERAL ELECTRIC CORPORATION
PARAMUS INDUSTRIAL PARK PARAMUS, NEW JERSEY
A SUBSIDIARY OF INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION GPA

Transmission Path: From Station GPA to Station GIM

	EXPECTED	ACTUAL
1. TRANSMITTER "A"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	3.5 Units
B. Power Output	Minimum +28 dbm	+28.4 dbm
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.325 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.3232 GC
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	25
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	*
2. TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	3.4 Units
B. Power Output	Minimum +28 dbm	+28.6 dbm

* Will not correct.

FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

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MW-503A LOS STATION TEST

		EXPECTED	ACTUAL
C. Transmitter RF Frequency			
1) Assigned Operating Freq.			8.325GC
2) Measured Freq. (AFC ON)		±0.005% of Assigned Freq.	8.3316GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)		Minimum 9	15
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)		Minimum 9	*

* Will not correct.

DATE 12 November 1963

TESTER W. J. Schreyaber

SUPERVISOR P. Sweeney

QUALITY ASSURANCE M. Carr

GEEIA Gerald A. Volmer

FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION GPA

Transmission Path: From Station GPA to Station GTA

	EXPECTED	ACTUAL
1. TRANSMITTER "A"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.65 Units
B. Power Output	Minimum +28 dbm	+27.8 dbm
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.380 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.3816 GC
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	*
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	*
2. TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	3.3 Units
B. Power Output	Minimum +28 dbm	+28.0 dbm

* Will not correct completely.

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MW-503A LOS STATION TEST

	EXPECTED	ACTUAL
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.380 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.3813 GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9	*
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	*

* Will not correct completely.

DATE 14 November 1963

TESTER Wm J Schwendeler

SUPERVISOR P. Sweeney

QUALITY ASSURANCE M. Crist

GEEIA Gerald A Holmes

FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION GIM

Transmission Path: From Station GIM to Station GPA

		EXPECTED	ACTUAL
1.	TRANSMITTER "A"		
	A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	#3.3 Units
	B. Power Output	Minimum +28 dbm	28.7dbm
	C. Transmitter RF Frequency		
	1) Assigned Operating Freq.		8.135GC
	2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.134605GC
	3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	10
	4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10
2.	TRANSMITTER "B"		
	A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.45 Units
	B. Power Output	Minimum +28 dbm	29.1 dbm

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MW-503A LOS STATION TEST

	EXPECTED	ACTUAL
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.135 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.134738 GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10

DATE 12 November 1963

TESTER Wm S Gray

SUPERVISOR R Allen

QUALITY ASSURANCE J Bonchet

GEEIA Ralph L Kruger

FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION GTA

Transmission Path: From Station GTA to Station GPA

	EXPECTED	ACTUAL
1. TRANSMITTER "A"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.9 Units
B. Power Output	Minimum +28 dbm	29.5 dbm
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.190 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.190004 GC
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10
2. TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	3.2 Units
B. Power Output	Minimum +28 dbm	29.1 dbm

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MW-503A LOS STATION TEST

		EXPECTED	ACTUAL
C. Transmitter RF Frequency			
1) Assigned Operating Freq.			8.190 GC
2) Measured Freq. (AFC ON)		±0.005% of Assigned Freq.	8.1902960 GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)		Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)		Minimum 9	10

DATE 14 November 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION GHO

Transmission Path: From Station GHO to Station GAG

	EXPECTED	ACTUAL
1. TRANSMITTER "A"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.9 Units
B. Power Output	Minimum +28 dbm	28.7 dbm
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.345 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.344.~~78~~ .680 GC
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10
2. TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	3.1 Units
B. Power Output	Minimum +28 dbm	29.3 dbm

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MW-503A LOS STATION TEST

	EXPECTED	ACTUAL
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.385 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.385.28 GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10

DATE 8 January 1967

TESTER V. Quinn

SUPERVISOR C.W. Mahlen

QUALITY ASSURANCE M. Crisf

GEEIA Ralph S. Kruger

FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION GHO

Transmission Path: From Station GHO to Station GPE

	EXPECTED	ACTUAL
1. TRANSMITTER "A"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	3.0 Units
B. Power Output	Minimum +28 dbm	29.4 dbm
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.385 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.385.4 GC .160
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10
2. TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.4 Units
B. Power Output	Minimum +28 dbm	* ~~26.4~~ dbm 30.6 dbm

~~*not within specifications.~~

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FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

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MW-503A LOS STATION TEST

	EXPECTED	ACTUAL
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.345 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.3439 GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10

DATE 8 January 1964

TESTER L. Quinn

SUPERVISOR C.W. Mallen

QUALITY ASSURANCE M. Cosi

GEEIA Ralph S. Krueger

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FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION GAG

Transmission Path: From Station GAG to Station GHO

	EXPECTED	ACTUAL
1. TRANSMITTER "A"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	3.2 Units
B. Power Output	Minimum +28 dbm	28.1 dbm
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.155 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.155 GC
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10
2. TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.8 Units
B. Power Output	Minimum +28 dbm	29.1 dbm

FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

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MW-503A LOS STATION TEST

		EXPECTED	ACTUAL
C. Transmitter RF Frequency			
1) Assigned Operating Freq.			8.155 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.		8.15432 720 GC **
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9		9
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9		9

~~** Does not meet specifications.~~

DATE 9 January 1964

TESTER [illegible]

SUPERVISOR Randall C. Packard

QUALITY ASSURANCE William R. [illegible]

GEEIA Ralph S. Krueger

AFCS

FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION GPE

Transmission Path: From Station GPE to Station GHO

	EXPECTED	ACTUAL
1. TRANSMITTER "A"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	3.4 Units
B. Power Output	Minimum +28 dbm	28.9 dbm
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.195 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	*8.19~~2~~ 4708 GC
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10
2/ TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.9 Units
B. Power Output	Minimum +28 dbm	28.9 dbm

* Out of Specs -? ok

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FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

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MW-503A LOS STATION TEST

	EXPECTED	ACTUAL
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.195 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	* 8.194 GC 512
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10

~~* Out of Specs~~

DATE 10 Jan 64

TESTER Robert Allen Jr

SUPERVISOR George C Ville

QUALITY ASSURANCE William R. Kelly

GEEIA Ralph S. Bruger

FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION T.I.D.

Transmission Path: From Station T.I.D. to Station T.I.C.

	EXPECTED	ACTUAL
1. TRANSMITTER "A"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	~~3.1~~ 3.1 Units
B. Power Output	Minimum +28 dbm	+29.9 dbm
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.365 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.3654560 GC
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10
2. TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	3.4 Units
B. Power Output	Minimum +28 dbm	+28.7 dbm

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FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

	EXPECTED	ACTUAL
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.365 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.362200 GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10

DATE 28, Nov. 1963

TESTER Jack W. Thal

SUPERVISOR R. E. Carter

QUALITY ASSURANCE Patricio Hunt

GEEIA Ralph S. Kruger

AFCS Carl W. Rudell

FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION TIC

Transmission Path: From Station TIC to Station TID

	EXPECTED	ACTUAL
1. TRANSMITTER "A"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	3.6 Units
B. Power Output	Minimum +28 dbm	+28.3 dbm
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.175GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.17352GC
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10
2. TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	3.6 Units
B. Power Output	Minimum +28 dbm	+30.6 dbm

FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

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MW-503A LOS STATION TEST

	EXPECTED	ACTUAL
C. Transmitter RF Frequency		
1) ~~Assigned Operating~~ Freq.		8.175 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.17504 GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9	9.5
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10

DATE 28 NOVEMBER 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE Stan Cornell

GEEIA Gerald A. Wolman

FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION TKG

Transmission Path: From Station TKG to Station TAL

	EXPECTED	ACTUAL
I. TRANSMITTER "A"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.3 Units
B. Power Output	Minimum +28 dbm	+29.0dbm
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.305 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	*8.29864 GC
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	9.5
TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.5 Units
B. Power Output	Minimum +28 dbm	+28.5dbm

* OUT OF SPEC.

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FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

	EXPECTED	ACTUAL
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.305 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.3048 GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10

DATE 12 December 1963

TESTER Jack H. Third

SUPERVISOR William R. Burbridge

QUALITY ASSURANCE Joseph Malkiewicz

GEEIA Donald A. Wolman

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FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION TKG

Transmission Path: From Station TKG to Station TKA

	EXPECTED	ACTUAL
TRANSMITTER "A"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.7 Units
B. Power Output	Minimum +28 dbm	+28.7 dbm
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.025 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.02643 GC
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	9.5
2. TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	3.5 Units
B. Power Output	Minimum +28 dbm	+28.0dbm

Mississippi
LA 9 3646

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FEDERAL ELECTRIC CORPORATION

BR II/81 Rev.

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DATA SHEET

MW-503A LOS STATION TEST

	EXPECTED	ACTUAL
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.345 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.346 GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9	7.5
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10

DATE 25 OCTOBER 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph L. Kruger

4-24

FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION TAL

Transmission Path: From Station TAL to Station TKG

	EXPECTED	ACTUAL
1. TRANSMITTER "A"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.9 Units
B. Power Output	Minimum +28 dbm	+29 dbm
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		7.795 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	7.7924 GC
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Di v CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10
2. TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.6 Units
B. Power Output	Minimum +28 dbm	+28.53 dbm

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FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

	EXPECTED	ACTUAL
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		7.795 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	7.7957 GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9	~~10~~
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10

DATE 13 DECEMBER, 1963

TESTER [illegible]

SUPERVISOR Ronald E. Miga

QUALITY ASSURANCE [illegible]

GEEIA Ralph S. Kruger

4-26

FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION TKA

Transmission Path: From Station TKA to Station TKG

	EXPECTED	ACTUAL
1. TRANSMITTER "A"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.5 Units
B. Power Output	Minimum +28 dbm	+ 28.8 dbm
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		7.83500 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	7.83440 GC
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10
2. TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.5 Units
B. Power Output	Minimum +28 dbm	+ 30.1 dbm

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FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

		EXPECTED	ACTUAL
C. Transmitter RF Frequency			
1) Assigned Operating Freq.			8.15500 GC
2) Measured Freq. (AFC ON)		±0.005% of Assigned Freq.	8.15224 GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)		Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)		Minimum 9	9.5

DATE 22 OCTOBER, 1963

TESTER James H. Longshore

SUPERVISOR Raymond K. Henderson

QUALITY ASSURANCE J. Klingelhe

GEEIA Ralph S. Krueger

4-28

FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION TKA

Transmission Path: From Station TKA to Station TKR

	EXPECTED	ACTUAL
1. TRANSMITTER "A"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.7 Units
B. Power Output	Minimum +28 dbm	+ 28.4 dbm
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.075 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.0739 GC
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	9.5
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	9.5
2. TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.6 Units
B. Power Output	Minimum +28 dbm	+ 28.5 dbm

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FEDERAL ELECTRIC CORPORATION

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

	EXPECTED	ACTUAL
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.07500GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.07498GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9	1000
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	9.5

DATE 23 OCTOBER, 1963

TESTER James H. Langham

SUPERVISOR Raymond C. Hudson

QUALITY ASSURANCE J. Menjetes

GEEIA Ralph S. Krueger

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FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION TKR

Transmission Path: From Station TKR to Station TKA

	EXPECTED	ACTUAL
1. TRANSMITTER "A"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.8 Units
B. Power Output	Minimum +28 dbm	+30.4 dbm
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.265 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.26372 GC
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10
2. TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.75 Units
B. Power Output	Minimum +28 dbm	+29.0 dbm

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FEDERAL ELECTRIC CORPORATION

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

	EXPECTED	ACTUAL
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.265 ~~8.265~~ GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.26414 GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10

DATE 22 OCTOBER 1963

TESTER Raymond Sheehan

SUPERVISOR Raymond Sheehan

QUALITY ASSURANCE Stan Ponelli

GEEIA Ralph L. Krueger

4-32

FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION TKR

Transmission Path: From Station TKR to Station TIZ

		EXPECTED	ACTUAL
1. TRANSMITTER "A"			
A. TX Klystron Beam Current		(35-85MA) 1.5-3.6 Units	2.90 Units
B. Power Output		Minimum +28 dbm	+29.8 dbm
C. Transmitter RF Frequency			
1) Assigned Operating Freq.			8225 GC
2) Measured Freq. (AFC ON)		±0.005% of Assigned Freq.	*8.22508 GC
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)		Minimum 9 9 SEC.	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)		Minimum 9 45 SEC	10
2. TRANSMITTER "B"			
A. TX Klystron Beam Current		(35-85MA) 1.5-3.6 Units	3.10 Units
B. Power Output		Minimum +28 dbm	+29.3 dbm

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FEDERAL ELECTRIC CORPORATION

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

		EXPECTED	ACTUAL
C. Transmitter RF Frequency			
1) Assigned Operating Freq.			8.225 GC
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.		*8.22424 GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9	15 SEC.	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	15 SEC.	10

* OUT OF SPECIFICATION

DATE 12 NOVEMBER 1963

TESTER [signature]

SUPERVISOR [signature]

QUALITY ASSURANCE [signature]

GEEIA VERIFIED 11/12/63

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FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION TIZ

Transmission Path: From Station TIZ to Station TKR

	EXPECTED	ACTUAL
1. TRANSMITTER "A"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	3.3 Units
B. Power Output	Minimum +28 dbm	+ 28.5 dbm
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.035 ~~XXXXGC~~
2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.034960 GC
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10
2. TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	3.0 Units
B. Power Output	Minimum +28 dbm	+ 29.0 dbm

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FEDERAL ELECTRIC CORPORATION

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

		EXPECTED	ACTUAL
C. Transmitter RF Frequency			
1) Assigned Operating Freq.			8.035 GC
2) Measured Freq. (AFC ON)		±0.005% of Assigned Freq.	* 8.033840 GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)		Minimum 9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)		Minimum 9	10

DATE 10 NOVEMBER, 1963

TESTER James Langhan

SUPERVISOR Paul Farosak

QUALITY ASSURANCE J.M. Klumpates

GEEIA S. Pelant

* OUT OF SPECS

4-36

FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION GPA

Transmitter Path: From Station ~~GPA~~ GIM to Station ~~GIM~~ GPA

		EXPECTED	ACTUAL
1.	RECEIVER A		
A.	RX Klystron Beam Current	15-32 MA	28 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-35
C.	1F AMP Noise Level	-17 ± 3 db	-20 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-85 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-2 db
2.	RECEIVER B		
A.	RX Klystron Beam Current	15-32MA	~~-26~~ MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	Pegged
C.	1F AMP Noise Level	-17 ± 3 db	~~-20.5~~ 19.2 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-85.7 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-3 db

DATE 12 November 1963

TESTER Wm J Schumacher

SUPERVISOR P. Sweeney

QUALITY ASSURANCE [illegible]

GEEIA Gerald A Holmes

BRII/82

SITE GPA(GIM)

REF: DD/250 Item # 16

6 Feb. 1964

REceiver 'B'.

C . I.F. Amp Noise Level	-17+ 3db	-19.2db

MC:mc

4-37A

FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION GPA

Transmitter Path: From Station GTA to Station GPA

		EXPECTED	ACTUAL
1.	RECEIVER A		
A.	RX Klystron Beam Current	15-32 MA	29 ~~[illegible]~~ MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	~~[illegible]~~ 45
C.	1F AMP Noise Level	-17 ± 3 db	-19.9 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-83.3 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-3.1 db
2.	RECEIVER B		
A.	RX Klystron Beam Current	15-32MA	-25 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-12
C.	1F AMP Noise Level	-17 ± 3 db	-20.3 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-81.9 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-3.0 db

DATE 14 November 1963

TESTER Wm J Schyemyaker

SUPERVISOR P. Sweeney

QUALITY ASSURANCE [illegible]

GEEIA Gerald A Walsh

FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION GIM

Transmitter Path: From Station ~~GIM~~ GPA to Station ~~GPA~~ GIM

		EXPECTED	ACTUAL
1.	RECEIVER A		
A.	RX Klystron Beam Current	15-32 MA	30 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-33
C.	1F AMP Noise Level	-17 ± 3 db	-17.9 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-85.2 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-.2 db
2.	RECEIVER B		
A.	RX Klystron Beam Current	15-32MA	24 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-40
C.	1F AMP Noise Level	-17 ± 3 db	-17.8 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-86.7 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-.4 db

DATE 12 November 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph S. Kuger

FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION GTA

Transmitter Path: From Station ~~GTA~~ GPA to Station ~~GPA~~ GTA

		EXPECTED	ACTUAL
1.	RECEIVER A		
A.	RX Klystron Beam Current	15-32 MA	28 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	Pegged
C.	1F AMP Noise Level	-17 ± 3 db	-19.2 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-86 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-2.6 db
2.	RECEIVER B		
A.	RX Klystron Beam Current	15-32MA	28 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-50
C.	1F AMP Noise Level	-17 ± 3 db	-18 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-86.7 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-2 db

DATE 14 November 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph S. Kruger

FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION GHO

Transmitter Path: From Station GHO to Station GAG

		EXPECTED	ACTUAL
1.	RECEIVER A		
A.	RX Klystron Beam Current	15-32 MA	25 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	~~-50~~ Ma/Pegged
C.	1F AMP Noise Level	-17 ± 3 db	-17.6 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-86.5 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-1.7 db
2.	RECEIVER B		
A.	RX Klystron Beam Current	15-32MA	-21 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	Pegged
C.	1F AMP Noise Level	-17 ± 3 db	-18.2 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-85.5 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-2.6 db

DATE 8 January 1964

TESTER V Quinn

SUPERVISOR Edwallen

QUALITY ASSURANCE M. Crist

GEEIA Ralph L. Kruger

FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION GHO

Transmitter Path: From Station GHO to Station GPE

		EXPECTED	ACTUAL
1.	RECEIVER A		
A.	RX Klystron Beam Current	15-32 MA	22 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-50
C.	1F AMP Noise Level	-17 ± 3 db	-18.2db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-86.3dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-2.3 db
2.	RECEIVER B		
A.	RX Klystron Beam Current	15-32MA	-19 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-50
C.	1F AMP Noise Level	-17 ± 3 db	-19 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-85.7dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-1.8 db

DATE 8 January 1964

TESTER V. Quinn

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph L. Kruger

FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION GAG

Transmitter Path: From Station GAG to Station GHO

		EXPECTED	ACTUAL
1.	RECEIVER A		
A.	RX Klystron Beam Current	15-32 MA	29 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-50
C.	1F AMP Noise Level	-17 ± 3 db	-19 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	87.2dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-2.3db
2.	RECEIVER B		
A.	RX Klystron Beam Current	15-32MA	-27 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-50
C.	1F AMP Noise Level	-17 ± 3 db	-19 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	87.2 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-1.3db

DATE 9 January 1964

TESTER James Donahan

SUPERVISOR Landell C. Rinehart

QUALITY ASSURANCE William R. Holz

GEEIA Ralph L. Krueger

AFCS

FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION GPE

Transmitter Path: From Station GPE to Station GHO

		EXPECTED	ACTUAL
1.	RECEIVER A		
A.	RX Klystron Beam Current	15-32 MA	21 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-50
C.	1F AMP Noise Level	-17 ± 3 db	-19 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-86 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-2.4 db
2.	RECEIVER B		
A.	RX Klystron Beam Current	15-32MA	-29 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-50
C.	1F AMP Noise Level	-17 ± 3 db	-19 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-87 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-2.8 db

DATE 10 Jan 64

TESTER Robert Allen

SUPERVISOR George C. Ulle

QUALITY ASSURANCE William R. [illegible]

GEEIA Ralph S. Krueger

FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION T.I.D.

Transmitter Path: From Station T.I.D. to Station T.I.C.

		EXPECTED	ACTUAL
1.	RECEIVER A		
A.	RX Klystron Beam Current	15-32 MA J.W.T.	23 ~~2.3~~ MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-24
C.	1F AMP Noise Level	-17 ± 3 db	-17.4 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-89.4 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-~~3~~1.5 db
2.	RECEIVER B		
A.	RX Klystron Beam Current	15-32MA	-31 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-50
C.	1F AMP Noise Level	-17 ± 3 db	-19.5 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	= 88.6 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	1.3 db

DATE 28 Nov. 1963

TESTER J. Watts

SUPERVISOR Russell E. Carter

QUALITY ASSURANCE Patrick Hunt

GEEIA Ralph S. Kruger

AFCS Carl W. Ruddell

4-45

FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION TIC

Transmitter Path: From Station TIC to Station TID

		EXPECTED	ACTUAL
1.	RECEIVER A		
A.	RX Klystron Beam Current	15-32 MA	26 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-50
C.	1F AMP Noise Level	-17 ± 3 db	-16.0 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-85.6 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-1.8 db
2.	RECEIVER B		
A.	RX Klystron Beam Current	15-32MA	23 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	Pegged Below -50
C.	1F AMP Noise Level	-17 ± 3 db	-14.7 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-87.6 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-1.8 db

DATE 28 NOVEMBER 1963

TESTER [signature]

SUPERVISOR [signature]

QUALITY ASSURANCE Stan Powell

GEEIA Gerald A Haber

FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION TKG

Transmitter Path: From Station TKG to Station TAL

		EXPECTED	ACTUAL
1.	RECEIVER A		
A.	RX Klystron Beam Current	15-32 MA	25 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	<-50
C.	1F AMP Noise Level	-17 ± 3 db	-17.6 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-86.4 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-2.6 db
2.	RECEIVER B		
A.	RX Klystron Beam Current	15-32MA	21 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	<-50
C.	1F AMP Noise Level	-17 ± 3 db	-18.1 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-85.4 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-1.5 db

DATE 12 December 1963

TESTER [illegible]

SUPERVISOR William R. Aldridge

QUALITY ASSURANCE Joseph Mallowney

GEEIA Donald A. Wolma

Sheet 1 of 1

FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION TKG

Transmitter Path: From Station TKG to Station TKA

		EXPECTED	ACTUAL
I.	RECEIVER A		
A.	RX Klystron Beam Current	15-32 MA	24.0 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-40.0
C.	1F AMP Noise Level	-17 ± 3 db	-16.5 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-78.0dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	41.4 db
II.	RECEIVER B		
A.	RX Klystron Beam Current	15-32MA	26.0 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-50.0
C.	1F AMP Noise Level	-17 ± 3 db	-15.0db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-75.0dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	- 0.8 db

DATE 25 OCTOBER 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph G. Krueger

FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

BIG RALLY II PROJECT

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MW-503A LOS STATION TEST

STATION TAL

Transmitter Path: From Station TAL to Station TKG

		EXPECTED	ACTUAL
1.	RECEIVER A		
A.	RX Klystron Beam Current	15-32 MA	22 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-50
C.	1F AMP Noise Level	-17 ± 3 db	-19.2 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-87.2 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-1.8 db
2.	RECEIVER B		
A.	RX Klystron Beam Current	15-32MA	23 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-50
C.	1F AMP Noise Level	-17 ± 3 db	-19.7 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-87.7 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-2.3 db

DATE 13 DECEMBER, 1963

TESTER Raymond C Henderson

SUPERVISOR Donald E Mine

QUALITY ASSURANCE [illegible]

GEEIA Ralph L Kruger

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FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

BIG RALLY II PROJECT

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MW-503A LOS STATION TEST

STATION TKA

Transmitter Path: From Station TKA to Station TKG

		EXPECTED	ACTUAL
1.	RECEIVER A		
A.	RX Klystron Beam Current	15-32 MA	2.0 MA,
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	RX1, RX2 PEGGED RX3, 21
C.	1F AMP Noise Level	-17 ± 3 db	-17.5 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-87.6 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	.7 db
2.	RECEIVER B		
A.	RX Klystron Beam Current	15-32MA	-25 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	RX1, RX2 PEGGED. ~~RX3, 21~~
C.	1F AMP Noise Level	-17 ± 3 db	-16.8db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-91.8dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	.3 db

DATE 22 OCTOBER, 1963

TESTER James H Longshan

SUPERVISOR Raymond C Hendrix

QUALITY ASSURANCE H Blumpette

GEEIA Ralph S. Krueger

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FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

BIG RALLY II PROJECT

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MW-503A LOS STATION TEST

STATION TKA

Transmitter Path: From Station TKA to Station TKR

		EXPECTED	ACTUAL
1.	RECEIVER A		
A.	RX Klystron Beam Current	15-32 MA	23 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-31
C.	1F AMP Noise Level	-17 ± 3 db	-18 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-88.7 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	2.2 db
2.	RECEIVER B		
A.	RX Klystron Beam Current	15-32MA	-27 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-29
C.	1F AMP Noise Level	-17 ± 3 db	-18.9 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-91.5 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	1.8 db

DATE 23 OCTOBER. 1963

TESTER [signature]

SUPERVISOR [signature]

QUALITY ASSURANCE [signature]

GEEIA [signature]

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FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

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MW-503A LOS STATION TEST

STATION TKR

Transmitter Path: From Station TKR to Station TKA

		EXPECTED	ACTUAL
1.	RECEIVER A		
A.	RX Klystron Beam Current	15-32 MA	23 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-50
C.	1F AMP Noise Level	-17 ± 3 db	-17.7 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-89.0dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-2.8 db
2.	RECEIVER B		
A.	RX Klystron Beam Current	15-32MA	-28.5MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-50
C.	1F AMP Noise Level	-17 ± 3 db	-18.2db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-88.4dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-1.8 db

DATE 22 OCTOBER 1963

TESTER Raymond Henderson

SUPERVISOR Raymond Henderson

QUALITY ASSURANCE [illegible]

GEEIA Ralph S. Kruger

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FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

BIG RALLY II PROJECT

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MW-503A LOS STATION TEST

STATION TKR

Transmitter Path: From Station TKR to Station TIZ

		EXPECTED	ACTUAL
1.	RECEIVER A		
A.	RX Klystron Beam Current	15-32 MA	21.0 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-46.0
C.	1F AMP Noise Level	-17 ± 3 db	-18.0db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-86.8dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-2.1 db
2.	RECEIVER B		
A.	RX Klystron Beam Current	15-32MA	25.0 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	> -50
C.	1F AMP Noise Level	-17 ± 3 db	-18.1db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-88.2dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-1.3 db

DATE 12 NOVEMBER 1963

TESTER [signature]

SUPERVISOR [signature]

QUALITY ASSURANCE [signature]

GEEIA VERIFIED 11/12/63

FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

BIG RALLY II PROJECT

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MW-503A LOS STATION TEST

STATION TIZ

Transmitter Path: From Station TIZ to Station TKR

		EXPECTED	ACTUAL
1.	RECEIVER A		
A.	RX Klystron Beam Current	15-32 MA	22 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	less than -50 *
C.	1F AMP Noise Level	-17 ± 3 db	-17.8 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-89.6 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	2.3 db
2.	RECEIVER B		
A.	RX Klystron Beam Current	15-32MA	20 MA
B.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	less than -50 *
C.	1F AMP Noise Level	-17 ± 3 db	-18.0 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-86.6 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	1.8 db

* NOTE: METER OFFSCALE ON RX I POSITION

DATE 10 NOVEMBER, 1963

TESTER James Langshaw

SUPERVISOR Paul Farrugia

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

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FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

BIG RALLY II PROJECT

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MW-503A LOS STATION TESTS

STATION GPA

Transmission Path: From Station GPA to Station GIM

	EXPECTED		ACTUAL R%	ACTUAL VSWR
1. HOT STANDBY CONFIGURATION				
A. VSWR Measurement at TX Frequency	1.4:1	(16.7%)	4.4	1.10 :1
B. VSWR Measurement at RX Frequency	1.4:1		6.9	1.14 :1
2. FREQUENCY DIVERSITY CONFIGURATION				
A. VSWR Measurement at TX-A Frequency	1.4:1			:1
B. VSWR Measurement at TX-B Frequency	1.4:1			:1
C. VSWR Measurement at RX-A Frequency	1.4:1			:1
D. VSWR Measurement at RX-B Frequency	1.4:1			:1
3. SPACE DIVERSITY CONFIGURATION				
A. Waveguide Run #1				
1) VSWR Measurement at TX Frequency	1.4:1			:1
2) VSWR Measurement at RX Frequency	1.4:1			:1
B. Waveguide Run #2				
1) VSWR Measurement at TX Frequency	1.4:1			:1
2) VSWR Measurement at RX Frequency	1.4:1			:1

DATE 12 November 1963

TESTER W. J. Schumacher

SUPERVISOR P. Sweeney

QUALITY ASSURANCE M. Croft

GEEIA Donald A. Wolner

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FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

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MW-503A LOS STATION TESTS

STATION GPA

Transmission Path: From Station GPA to Station GTA

	EXPECTED		ACTUAL R%	ACTUAL VSWR
1. HOT STANDBY CONFIGURATION				
A. VSWR Measurement at TX Frequency	1.4:1	(16.7%)	1.8	1.03 :1
B. VSWR Measurement at RX Frequency	1.4:1		3.0	1.06 :1
2. FREQUENCY DIVERSITY CONFIGURATION				
A. VSWR Measurement at TX-A Frequency	1.4:1		____	____:1
B. VSWR Measurement at TX-B Frequency	1.4:1		____	____:1
C. VSWR Measurement at RX-A Frequency	1.4:1		____	____:1
D. VSWR Measurement at RX-B Frequency	1.4:1		____	____:1
3. SPACE DIVERSITY CONFIGURATION				
A. Waveguide Run #1				
1) VSWR Measurement at TX Frequency	1.4:1		____	____:1
2) VSWR Measurement at RX Frequency	1.4:1		____	____:1
B. Waveguide Run #2				
1) VSWR Measurement at TX Frequency	1.4:1		____	____:1
2) VSWR Measurement at RX Frequency	1.4:1		____	____:1

DATE 12 November 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

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FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

BIG RALLY II PROJECT

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MW-503A LOS STATION TESTS

STATION GIM

Transmission Path: From Station GIM to Station GPA

	EXPECTED	ACTUAL R%	ACTUAL VSWR
1. HOT STANDBY CONFIGURATION			
A. VSWR Measurement at TX Frequency	1.4:1 (16.7%)	6	1.10:1
B. VSWR Measurement at RX Frequency	1.4:1	7.6	1.14:1
2. FREQUENCY DIVERSITY CONFIGURATION			
A. VSWR Measurement at TX-A Frequency	1.4:1		:1
B. VSWR Measurement at TX-B Frequency	1.4:1		:1
C. VSWR Measurement at RX-A Frequency	1.4:1		:1
D. VSWR Measurement at RX-B Frequency	1.4:1		:1
3. SPACE DIVERSITY CONFIGURATION			
A. Waveguide Run #1			
1) VSWR Measurement at TX Frequency	1.4:1		:1
2) VSWR Measurement at RX Frequency	1.4:1		:1
B. Waveguide Run #2			
1) VSWR Measurement at TX Frequency	1.4:1		:1
2) VSWR Measurement at RX Frequency	1.4:1		:1

DATE 12 November 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph [illegible]

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FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

BIG RALLY II PROJECT

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MW-503A LOS STATION TESTS

STATION G T A

Transmission Path: From Station G T A to Station G P A

	EXPECTED	ACTUAL R%	ACTUAL VSWR
1. HOT STANDBY CONFIGURATION			
A. VSWR Measurement at TX Frequency	1.4:1 (16.7%)	6	1.13 :1
B. VSWR Measurement at RX Frequency	1.4:1	9.2	1.20 :1
2. FREQUENCY DIVERSITY CONFIGURATION			
A. VSWR Measurement at TX-A Frequency	1.4:1		:1
B. VSWR Measurement at TX-B Frequency	1.4:1		:1
C. VSWR Measurement at RX-A Frequency	1.4:1		:1
D. VSWR Measurement at RX-B Frequency	1.4:1		:1
3. SPACE DIVERSITY CONFIGURATION			
A. Waveguide Run #1			
1) VSWR Measurement at TX Frequency	1.4:1		:1
2) VSWR Measurement at RX Frequency	1.4:1		:1
B. Waveguide Run #2			
1) VSWR Measurement at TX Frequency	1.4:1		:1
2) VSWR Measurement at RX Frequency	1.4:1		:1

DATE 14 November 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

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FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

BIG RALLY II PROJECT

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MW-503A LOS STATION TESTS

STATION GHO

Transmission Path: From Station GHO to Station GAG

	EXPECTED		ACTUAL R%	ACTUAL VSWR
1. HOT STANDBY CONFIGURATION				
A. VSWR Measurement at TX Frequency	1.4:1	(16.7%)	4.7	1.10 :1
B. VSWR Measurement at RX Frequency	1.4:1		5	1.11 :1
2. FREQUENCY DIVERSITY CONFIGURATION				
A. VSWR Measurement at TX-A Frequency	1.4:1			:1
B. VSWR Measurement at TX-B Frequency	1.4:1			:1
C. VSWR Measurement at RX-A Frequency	1.4:1			:1
D. VSWR Measurement at RX-B Frequency	1.4:1			:1
3. SPACE DIVERSITY CONFIGURATION				
A. Waveguide Run #1				
1) VSWR Measurement at TX Frequency	1.4:1			:1
2) VSWR Measurement at RX Frequency	1.4:1			:1
B. Waveguide Run #2				
1) VSWR Measurement at TX Frequency	1.4:1			:1
2) VSWR Measurement at RX Frequency	1.4:1			:1

DATE 8 January 1964

TESTER V. Quinn

SUPERVISOR Edwallen

QUALITY ASSURANCE M. Orr Jr.

GEEIA Ralph S. Kruger

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FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

BIG RALLY II PROJECT

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MW-503A LOS STATION TESTS

STATION GHO

Transmission Path: From Station GHO to Station GPE

	EXPECTED		ACTUAL R%	ACTUAL VSWR
1. HOT STANDBY CONFIGURATION				
A. VSWR Measurement at TX Frequency	1.4:1	(16.7%)	6.3	1.13 :1
B. VSWR Measurement at RX Frequency	1.4:1		4.3	1.09 :1
2. FREQUENCY DIVERSITY CONFIGURATION				
A. VSWR Measurement at TX-A Frequency	1.4:1			:1
B. VSWR Measurement at TX-B Frequency	1.4:1			:1
C. VSWR Measurement at RX-A Frequency	1.4:1			:1
D. VSWR Measurement at RX-B Frequency	1.4:1			:1
3. SPACE DIVERSITY CONFIGURATION				
A. Waveguide Run #1				
1) VSWR Measurement at TX Frequency	1.4:1			:1
2) VSWR Measurement at RX Frequency	1.4:1			:1
B. Waveguide Run #2				
1) VSWR Measurement at TX Frequency	1.4:1			:1
2) VSWR Measurement at RX Frequency	1.4:1			:1

DATE 8 January 1964

TESTER V. Quinn

SUPERVISOR C.W. Mahlen

QUALITY ASSURANCE M. Corcoran

GEEIA Ralph L. Krueger

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FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

BIG RALLY II PROJECT

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MW-503A LOS STATION TESTS

STATION GAG

Transmission Path: From Station GAG to Station GHO

	EXPECTED	R%	ACTUAL VSWR
1. HOT STANDBY CONFIGURATION			
A. VSWR Measurement at TX Frequency	1.4:1 (16.7%)	4	1.08 :1
B. VSWR Measurement at RX Frequency	1.4:1	2.8	1.05 :1
2. FREQUENCY DIVERSITY CONFIGURATION			
A. VSWR Measurement at TX-A Frequency	1.4:1		:1
B. VSWR Measurement at TX-B Frequency	1.4:1		:1
C. VSWR Measurement at RX-A Frequency	1.4:1		:1
D. VSWR Measurement at RX-B Frequency	1.4:1		:1
3. SPACE DIVERSITY CONFIGURATION			
A. Waveguide Run #1			
1) VSWR Measurement at TX Frequency	1.4:1		:1
2) VSWR Measurement at RX Frequency	1.4:1		:1
B. Waveguide Run #2			
1) VSWR Measurement at TX Frequency	1.4:1		:1
2) VSWR Measurement at RX Frequency	1.4:1		:1

DATE 9 January 1964

TESTER James Fogelsand

SUPERVISOR Randall C. Parlier

QUALITY ASSURANCE William R. Hill

GEEIA Ralph A. Kruger

AFCS

Sheet 1 of 1

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FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

BIG RALLY II PROJECT

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MW-503A LOS STATION TESTS

STATION GPE

Transmission Path: From Station GPE to Station GHO

	EXPECTED		ACTUAL R%	ACTUAL VSWR
1. HOT STANDBY CONFIGURATION				
A. VSWR Measurement at TX Frequency	1.4:1	(16.7%)	3.2	1.06 :1
B. VSWR Measurement at RX Frequency	1.4:1		3.4	1.07 :1
2. FREQUENCY DIVERSITY CONFIGURATION				
A. VSWR Measurement at TX-A Frequency	1.4:1			:1
B. VSWR Measurement at TX-B Frequency	1.4:1			:1
C. VSWR Measurement at RX-A Frequency	1.4:1			:1
D. VSWR Measurement at RX-B Frequency	1.4:1			:1
3. SPACE DIVERSITY CONFIGURATION				
A. Waveguide Run #1				
1) VSWR Measurement at TX Frequency	1.4:1			:1
2) VSWR Measurement at RX Frequency	1.4:1			:1
B. Waveguide Run #2				
1) VSWR Measurement at TX Frequency	1.4:1			:1
2) VSWR Measurement at RX Frequency	1.4:1			:1

DATE 10 Jan 64

TESTER Robert Allen Jr

SUPERVISOR George C. Vlk

QUALITY ASSURANCE William R. [illegible]

GEEIA Ralph L. Krueger

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FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

BIG RALLY II PROJECT

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MW-503A LOS STATION TESTS

STATION T.I.D.

Transmission Path: From Station T.I.D. to Station T.I.C.

	EXPECTED		ACTUAL R%	ACTUAL VSWR
1. HOT STANDBY CONFIGURATION				
A. VSWR Measurement at TX Frequency	1.4:1	(16.7%)	6.5	1.14 :1
B. VSWR Measurement at RX Frequency	1.4:1		6.2	1.13 :1
2. FREQUENCY DIVERSITY CONFIGURATION	N/A			
A. VSWR Measurement at TX-A Frequency	1.4:1			:1
B. VSWR Measurement at TX-B Frequency	1.4:1			:1
C. VSWR Measurement at RX-A Frequency	1.4:1			:1
D. VSWR Measurement at RX-B Frequency	1.4:1			:1
3. SPACE DIVERSITY CONFIGURATION				
A. Waveguide Run #1				
1) VSWR Measurement at TX Frequency	1.4:1			:1
2) VSWR Measurement at RX Frequency	1.4:1			:1
B. Waveguide Run #2				
1) VSWR Measurement at TX Frequency	1.4:1			:1
2) VSWR Measurement at RX Frequency	1.4:1			:1

DATE 28, Nov. 1963

TESTER [illegible]

SUPERVISOR Russell E Carter

QUALITY ASSURANCE [illegible]

GEEIA Ralph S Bruegger

AFCS Carl W Ruddell 4-63

FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

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MW-503A LOS STATION TESTS

STATION TIC

Transmission Path: From Station TIC to Station TID

	EXPECTED		ACTUAL R%	ACTUAL VSWR
1. HOT STANDBY CONFIGURATION				
A. VSWR Measurement at TX Frequency	1.4:1	(16.7%)	3%	1.06 :1
B. VSWR Measurement at RX Frequency	1.4:1		10%	1.22 :1
2. FREQUENCY DIVERSITY CONFIGURATION				
A. VSWR Measurement at TX-A Frequency	1.4:1		N/A	N/A :1
B. VSWR Measurement at TX-B Frequency	1.4:1		N/A	N/A :1
C. VSWR Measurement at RX-A Frequency	1.4:1		N/A	N/A :1
D. VSWR Measurement at RX-B Frequency	1.4:1		N/A	N/A :1
3. SPACE DIVERSITY CONFIGURATION				
A. Waveguide Run #1				
1) VSWR Measurement at TX Frequency	1.4:1		N/A	N/A :1
2) VSWR Measurement at RX Frequency	1.4:1		N/A	N/A :1
B. Waveguide Run #2				
1) VSWR Measurement at TX Frequency	1.4:1		N/A	N/A :1
2) VSWR Measurement at RX Frequency	1.4:1		N/A	N/A :1

DATE 28 November 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Gerald A Holmes

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FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

BIG RALLY II PROJECT

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MW-503A LOS STATION TESTS

STATION TKG

Transmission Path: From Station TKG to Station TAL

	EXPECTED		ACTUAL R%	ACTUAL VSWR
1. HOT STANDBY CONFIGURATION				
A. VSWR Measurement at TX Frequency	1.4:1	(16.7%)	N/A	N/A :1
B. VSWR Measurement at RX Frequency	1.4:1		N/A	N/A :1
2. FREQUENCY DIVERSITY CONFIGURATION				
A. VSWR Measurement at TX-A Frequency	1.4:1		N/A	N/A :1
B. VSWR Measurement at TX-B Frequency	1.4:1		N/A	N/A :1
C. VSWR Measurement at RX-A Frequency	1.4:1		N/A	N/A :1
D. VSWR Measurement at RX-B Frequency	1.4:1		N/A	N/A :1
3. SPACE DIVERSITY CONFIGURATION				
A. Waveguide Run #1				
1) VSWR Measurement at TX Frequency	1.4:1		3.5%	1.08 :1
2) VSWR Measurement at RX Frequency	1.4:1		3.9%	1.08 :1
B. Waveguide Run #2				
1) VSWR Measurement at TX Frequency	1.4:1		6.0%	1.13 :1
2) VSWR Measurement at RX Frequency	1.4:1		6.0%	1.13 :1

DATE 14 December 1963

TESTER [illegible]

SUPERVISOR William R. Burbridge

QUALITY ASSURANCE Joseph Mahoney

GEEIA Gerald A. Nolan

4-65

FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

BIG RALLY II PROJECT

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MW-503A LOS STATION TESTS

STATION TKG

Transmission Path: From Station TKG to Station TKA

	EXPECTED	ACTUAL R%	ACTUAL VSWR
1. HOT STANDBY CONFIGURATION			
A. VSWR Measurement at TX Frequency	1.4:1 (16.7%)	N/a	N/A :1
B. VSWR Measurement at RX Frequency	1.4:1	N/A	N/A :1
2. FREQUENCY DIVERSITY CONFIGURATION			
A. VSWR Measurement at TX-A Frequency	1.4:1	5%	1.10 :1
B. VSWR Measurement at TX-B Frequency	1.4:1	5.5%	1.10 :1
C. VSWR Measurement at RX-A Frequency	1.4:1	8.0%	1.17 :1
D. VSWR Measurement at RX-B Frequency	1.4:1	6.0%	1.13 :1
3. SPACE DIVERSITY CONFIGURATION			
A. Waveguide Run #1			
1) VSWR Measurement at TX Frequency	1.4:1	N/A	N/A :1
2) VSWR Measurement at RX Frequency	1.4:1	N/A	N/A :1
B. Waveguide Run #2			
1) VSWR Measurement at TX Frequency	1.4:1	N/A	N/A :1
2) VSWR Measurement at RX Frequency	1.4:1	N/A	N/A :1

DATE 25 OCTOBER 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

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FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION TAL

Transmission Path: From Station TAL to Station TKG

	EXPECTED	ACTUAL R%	ACTUAL VSWR
1. HOT STANDBY CONFIGURATION	N/A		
A. VSWR Measurement at TX Frequency	1.4:1 (16.7%)		:1
B. VSWR Measurement at RX Frequency	1.4:1		:1
2. FREQUENCY DIVERSITY CONFIGURATION	N/A		
A. VSWR Measurement at TX-A Frequency	1.4:1		:1
B. VSWR Measurement at TX-B Frequency	1.4:1		:1
C. VSWR Measurement at RX-A Frequency	1.4:1		:1
D. VSWR Measurement at RX-B Frequency	1.4:1		:1
3. SPACE DIVERSITY CONFIGURATION			
A. Waveguide Run #1			
1) VSWR Measurement at TX Frequency	1.4:1	5%	1.10 :1
2) VSWR Measurement at RX Frequency	1.4:1	~~XXX~~ 6%	~~XXX~~ 1.12 :1
B. Waveguide Run #2			
1) VSWR Measurement at TX Frequency	1.4:1	6.6%	1.14 :1
2) VSWR Measurement at RX Frequency	1.4:1	4%	1.08 :1

DATE 13 DECEMBER, 1963

TESTER [illegible]

SUPERVISOR Donald E Mina

QUALITY ASSURANCE [illegible]

GEEIA Ralph S. Krueger

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FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION TKA

Transmission Path : From Station TKA to Station TKG

	EXPECTED		ACTUAL R%	ACTUAL VSWR
1. HOT STANDBY CONFIGURATION				
A. VSWR Measurement at TX Frequency	1.4:1	(16.7%)	____	____:1
B. VSWR Measurement at RX Frequency	1.4:1		____	____:1
2. FREQUENCY DIVERSITY CONFIGURATION		(TKA-TKG)		
A. VSWR Measurement at TX-A Frequency	1.4:1		5.2	1.1:1
B. VSWR Measurement at TX-B Frequency	1.4:1		4.6	1.1:1
C. VSWR Measurement at RX-A Frequency	1.4:1		6.5	1.13:1
D. VSWR Measurement at RX-B Frequency	1.4:1		~~6.5~~	~~1.13~~:1
3. SPACE DIVERSITY CONFIGURATION				
A. Waveguide Run #1				
1) VSWR Measurement at TX Frequency	1.4:1		____	____:1
2) VSWR Measurement at RX Frequency	1.4:1		____	____:1
B. Waveguide Run #2				
1) VSWR Measurement at TX Frequency	1.4:1		____	____:1
2) VSWR Measurement at RX Frequency	1.4:1		____	____:1

DATE 24 OCTOBER, 1963

TESTER James H Donaghan

SUPERVISOR Benjamin I C Lindsay

QUALITY ASSURANCE J M Marquette

GEEIA Ralph L Kreuger

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FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION TKA

Transmission Path: From Station TKA to Station TKR

	EXPECTED	ACTUAL R%	ACTUAL VSWR
1. HOT STANDBY CONFIGURATION			
A. VSWR Measurement at TX Frequency	1.4:1 (16.7%)	____	____:1
B. VSWR Measurement at RX Frequency	1.4:1	____	____:1
2. FREQUENCY DIVERSITY CONFIGURATION			
A. VSWR Measurement at TX-A Frequency	1.4:1	____	____:1
B. VSWR Measurement at TX-B Frequency	1.4:1	____	____:1
C. VSWR Measurement at RX-A Frequency	1.4:1	____	____:1
D. VSWR Measurement at RX-B Frequency	1.4:1	____	____:1
3. SPACE DIVERSITY CONFIGURATION		TKA (TKR)	
A. Waveguide Run #1			
1) VSWR Measurement at TX Frequency	1.4:1	11 %	1.24:1
2) VSWR Measurement at RX Frequency	1.4:1	8.2%	1.18:1
B. Waveguide Run #2			
1) VSWR Measurement at TX Frequency	1.4:1	4.9%	1.11:1
2) VSWR Measurement at RX Frequency	1.4:1	9.0%	1.08:1

DATE 24 OCTOBER 1963

TESTER James H. Conghan

SUPERVISOR Raymond C. Hoffmeier

QUALITY ASSURANCE J. M. Manette

GEEIA Ralph S. Kreiger

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FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION TKR

Transmission Path: From Station TKR to Station TKA

	EXPECTED		ACTUAL R%	ACTUAL VSWR
1. HOT STANDBY CONFIGURATION				
A. VSWR Measurement at TX Frequency	1.4:1	(16.7%)	N/A	N/A :1
B. VSWR Measurement at RX Frequency	1.4:1		N/A	N/A :1
2. FREQUENCY DIVERSITY CONFIGURATION				
A. VSWR Measurement at TX-A Frequency	1.4:1		N/A	N/A :1
B. VSWR Measurement at TX-B Frequency	1.4:1		N/A	N/A :1
C. VSWR Measurement at RX-A Frequency	1.4:1		N/A	N/A :1
D. VSWR Measurement at RX-B Frequency	1.4:1		N/A	N/A :1
3. SPACE DIVERSITY CONFIGURATION				
A. Waveguide Run #1 "A"				
1) VSWR Measurement at TX Frequency	1.4:1		5%	1.15 :1
2) VSWR Measurement at RX Frequency	1.4:1		4%	1.08 :1
B. Waveguide Run #2 "B"				
1) VSWR Measurement at TX Frequency	1.4:1		3.4%	1.07 :1
2) VSWR Measurement at RX Frequency	1.4:1		3.2%	1.07 :1

DATE 24 OCTOBER 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Clifford [illegible]

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FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION TKR

Transmission Path: From Station TKR to Station TIZ

	EXPECTED		ACTUAL R%	ACTUAL VSWR
1. HOT STANDBY CONFIGURATION				
A. VSWR Measurement at TX Frequency	1.4:1	(16.7%)	N/A	N/A :1
B. VSWR Measurement at RX Frequency	1.4:1		N/A	N/A :1
2. FREQUENCY DIVERSITY CONFIGURATION				
A. VSWR Measurement at TX-A Frequency	1.4:1		N/A	N/A :1
B. VSWR Measurement at TX-B Frequency	1.4:1		N/A	N/A :1
C. VSWR Measurement at RX-A Frequency	1.4:1		N/A	N/A :1
D. VSWR Measurement at RX-B Frequency	1.4:1		N/A	N/A :1
3. SPACE DIVERSITY CONFIGURATION				
A. Waveguide Run #1				
1) VSWR Measurement at TX Frequency	1.4:1		2.5%	1:104 :1
2) VSWR Measurement at RX Frequency	1.4:1		8.2%	1:117 :1
B. Waveguide Run #2				
1) VSWR Measurement at TX Frequency	1.4:1		4.0%	1:108 :1
2) VSWR Measurement at RX Frequency	1.4:1		4.0%	1:108 :1

DATE 12 NOVEMBER 1963

TESTER [signature]

SUPERVISOR [signature]

QUALITY ASSURANCE [signature]

GEEIA VERIFIED 11/12/63

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FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION TIZ

Transmission Path: From Station TIZ to Station TKR

	EXPECTED	ACTUAL R%	ACTUAL VSWR
1. HOT STANDBY CONFIGURATION			
A. VSWR Measurement at TX Frequency	1.4:1 (16.7%)	_____	_____:1
B. VSWR Measurement at RX Frequency	1.4:1	_____	_____:1
2. FREQUENCY DIVERSITY CONFIGURATION			
A. VSWR Measurement at TX-A Frequency	1.4:1	_____	_____:1
B. VSWR Measurement at TX-B Frequency	1.4:1	_____	_____:1
C. VSWR Measurement at RX-A Frequency	1.4:1	_____	_____:1
D. VSWR Measurement at RX-B Frequency	1.4:1	_____	_____:1
3. SPACE DIVERSITY CONFIGURATION			
A. Waveguide Run #1			
1) VSWR Measurement at TX Frequency	1.4:1	10%	1.22 :1
2) VSWR Measurement at RX Frequency	1.4:1	2.2%	1.04 :1
B. Waveguide Run #2			
1) VSWR Measurement at TX Frequency	1.4:1	5.6%	1.11 :1
2) VSWR Measurement at RX Frequency	1.4:1	5.4%	1.11 :1

NOTE: ABOVE MEASUREMENTS MADE WITH GAS BARRIER ON WAVEGUIDE

DATE 10 NOVEMBER 1963

TESTER James Donahan

SUPERVISOR Paul Faiscal

QUALITY ASSURANCE J. W. Mangeter

GEEIA [illegible]

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION GPA

Transmission Path: From Station GPA to Station GIM

REQUIREMENT	INITIAL IF OK
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	mc
B. External Alarms Energized	mc
C. "A" Diversity Path Alarm Light	mc
D. "A" Power Supply Alarm Lamp Lights (where applicable)	mc
E. Audible Alarm	mc
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	mc
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	mc
B. External Alarms Energized	mc
C. "B" Diversity Alarms Energized	mc
D. "B" Power Supply Alarm Lamp Lights (where applicable)	mc
E. Audible Alarm	mc
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	mc

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3. "A" MODULATION ALARM

A. "A" AFC Pilot Sensor Alarm ___mc___

B. Patch Panel Equip Alarm Lights ___mc___

C. External Alarms Energized ___mc___

D. Audible Alarm ___mc___

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit ___mc___

4. "B" MODULATION ALARM

A. "B" AFC Pilot Sensor Alarm Lamp Lights ___mc___

B. Patch Panel Equip Alarm Lights ___mc___

C. External Alarms Energized ___mc___

D. Audible Alarm ___mc___

E. Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit ___mc___

5. "A" RF POWER ALARM

A. "A" AFC Meter Pulses ___mc___

B. Patch Panel Equip Alarm Lights ___mc___

C. External Alarms Energized ___mc___

D. Audible Alarm ___mc___

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit ___mc___

FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

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DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A. "B" AFC Meter Pulses _____ mc

B. Patch Panel Equip Alarm Lights _____ mc

C. External Alarms Energized _____ mc

D. Audible Alarm _____ mc

E. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit _____ mc

DATE 12 November 1963

TESTER Wm J. Schumacher

SUPERVISOR P. Sweeney

QUALITY ASSURANCE M. Cario

GEEIA Gerald A. Holmes

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION GPA

Transmission Path: From Station GPA to Station GTA

REQUIREMENT	INITIAL IF OK
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	MC
B. External Alarms Energized	MC
C. "A" Diversity Path Alarm Light	MC
D. "A" Power Supply Alarm Lamp Lights (where applicable)	MC
E. Audible Alarm	MC
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	MC
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	MC
B. External Alarms Energized	MC
C. "B" Diversity Alarms Energized	MC
D. "B" Power Supply Alarm Lamp Lights (where applicable)	MC
E. Audible Alarm	MC
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	MC

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3. "A" MODULATION ALARM

A. "A" AFC Pilot Sensor Alarm — inc

B. Patch Panel Equip Alarm Lights — inc

C. External Alarms Energized — inc

D. Audible Alarm — inc

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit — inc

4. "B" MODULATION ALARM

A. "B" AFC Pilot Sensor Alarm Lamp Lights — inc

B. Patch Panel Equip Alarm Lights — inc

C. External Alarms Energized — inc

D. Audible Alarm — inc

E. Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit — inc

5. "A" RF POWER ALARM

A. "A" AFC Meter Pulses — *

B. Patch Panel Equip Alarm Lights — inc

C. External Alarms Energized — inc.

D. Audible Alarm — inc

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit — inc

FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A. "B" AFC Meter Pulses ___mc___

B. Patch Panel Equip Alarm Lights ___mc___

C. External Alarms Energized ___mc___

D. Audible Alarm ___mc___

E. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit ___mc___

DATE 14 Nov. 1963

TESTER [illegible]

SUPERVISOR R. Sweeney

QUALITY ASSURANCE M. Carafa Jr.

GEEIA Gerald A. Nelson

4-78

FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION GIM

Transmission Path: From Station GIM to Station GPA

REQUIREMENT	INITIAL IF OK
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	RSK
B. External Alarms Energized	RSK
C. "A" Diversity Path Alarm Light	RSK
D. "A" Power Supply Alarm Lamp Lights (where applicable)	RSK
E. Audible Alarm	RSK
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	RSK
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	RSK
B. External Alarms Energized	RSK
C. "B" Diversity Alarms Energized	RSK
D. "B" Power Supply Alarm Lamp Lights (where applicable)	RSK
E. Audible Alarm	RSK
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	RSK

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3. "A" MODULATION ALARM

A. "A" AFC Pilot Sensor Alarm RSK

B. Patch Panel Equip Alarm Lights RSK

C. External Alarms Energized RSK

D. Audible Alarm RSK

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit RSK

4. "B" MODULATION ALARM

A. "B" AFC Pilot Sensor Alarm Lamp Lights RSK

B. Patch Panel Equip Alarm Lights RSK

C. External Alarms Energized RSK

D. Audible Alarm RSK

E. Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit RSK

5. "A" RF POWER ALARM

A. "A" AFC Meter Pulses RSK

B. Patch Panel Equip Alarm Lights RSK

C. External Alarms Energized RSK

D. Audible Alarm RSK

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit RSK

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A. "B" AFC Meter Pulses RSK

B. Patch Panel Equip Alarm Lights RSK

C. External Alarms Energized RSK

D. Audible Alarm RSK

E. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit RSK

DATE 12 November 1963

TESTER [illegible]

SUPERVISOR R Allen

QUALITY ASSURANCE J Bracher

GEEIA Ralph L. Bruger

4-81

FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION G T A

Transmission Path: From Station G T A to Station G P A

REQUIREMENT	INITIAL IF OK
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	RSK
B. External Alarms Energized	RSK
C. "A" Diversity Path Alarm Light	RSK
D. "A" Power Supply Alarm Lamp Lights (where applicable)	RSK
E. Audible Alarm	RSK
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	RSK
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	RSK
B. External Alarms Energized	RSK
C. "B" Diversity Alarms Energized	RSK
D. "B" Power Supply Alarm Lamp Lights (where applicable)	RSK
E. Audible Alarm	RSK
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	RSK

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3. "A" MODULATION ALARM

A. "A" AFC Pilot Sensor Alarm RSK

B. Patch Panel Equip Alarm Lights RSK

C. External Alarms Energized RSK

D. Audible Alarm RSK

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit RSK

4. "B" MODULATION ALARM

A. "B" AFC Pilot Sensor Alarm Lamp Lights RSK

B. Patch Panel Equip Alarm Lights RSK

C. External Alarms Energized RSK

D. Audible Alarm RSK

E. Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit RSK

5. "A" RF POWER ALARM

A. "A" AFC Meter Pulses RSK

B. Patch Panel Equip Alarm Lights RSK

C. External Alarms Energized RSK

D. Audible Alarm RSK

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit RSK

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A. "B" AFC Meter Pulses RSK

B. Patch Panel Equip Alarm Lights RSK

C. External Alarms Energized RSK

D. Audible Alarm RSK

E. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit RSK

DATE 14 November 1969

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph S. Kruger

4-84

FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION GHO

Transmission Path: From Station GHO to Station GAG

REQUIREMENT	INITIAL IF OK
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	RSK
B. External Alarms Energized	RSK
C. "A" Diversity Path Alarm Light	RSK
D. "A" Power Supply Alarm Lamp Lights (where applicable)	RSK
E. Audible Alarm	RSK
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	RSK
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	RSK
B. External Alarms Energized	RSK
C. "B" Diversity Alarms Energized	RSK
D. "B" Power Supply Alarm Lamp Lights (where applicable)	RSK
E. Audible Alarm	RSK
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	RSK

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3. "A" MODULATION ALARM

A.	"A" AFC Pilot Sensor Alarm	RSK
B.	Patch Panel Equip Alarm Lights	RSK
C.	External Alarms Energized	RSK
D.	Audible Alarm	RSK
E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK

4. "B" MODULATION ALARM

A.	"B" AFC Pilot Sensor Alarm Lamp Lights	RSK
B.	Patch Panel Equip Alarm Lights	RSK
C.	External Alarms Energized	RSK
D.	Audible Alarm	RSK
E.	Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK

5. "A" RF POWER ALARM

A.	"A" AFC Meter Pulses	RSK
B.	Patch Panel Equip Alarm Lights	RSK
C.	External Alarms Energized	RSK
D.	Audible Alarm	RSK
E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A.	"B" AFC Meter Pulses	RSK
B.	Patch Panel Equip Alarm Lights	RSK
C.	External Alarms Energized	RSK
D.	Audible Alarm	RSK
E.	Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK

DATE 8 January 1964

TESTER V. Quinn

SUPERVISOR CDWMahler

QUALITY ASSURANCE M. Corio

GEEIA Ralph S. Kruger

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION GHO

Transmission Path: From Station GHO to Station GPE

REQUIREMENT	INITIAL IF OK
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	RSK
B. External Alarms Energized	RSK
C. "A" Diversity Path Alarm Light	RSK
D. "A" Power Supply Alarm Lamp Lights (where applicable)	RSK
E. Audible Alarm	RSK
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	RSK
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	RSK
B. External Alarms Energized	RSK
C. "B" Diversity Alarms Energized	RSK
D. "B" Power Supply Alarm Lamp Lights (where applicable)	RSK
E. Audible Alarm	RSK
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	RSK

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3. "A" MODULATION ALARM

A.	"A" AFC Pilot Sensor Alarm	RSK
B.	Patch Panel Equip Alarm Lights	RSK
C.	External Alarms Energized	RSK
D.	Audible Alarm	RSK
E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK

4. "B" MODULATION ALARM

A.	"B" AFC Pilot Sensor Alarm Lamp Lights	RSK
B.	Patch Panel Equip Alarm Lights	RSK
C.	External Alarms Energized	RSK
D.	Audible Alarm	RSK
E.	Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK

5. "A" RF POWER ALARM

A.	"A" AFC Meter Pulses	RSK
B.	Patch Panel Equip Alarm Lights	RSK
C.	External Alarms Energized	RSK
D.	Audible Alarm	RSK
E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A.	"B" AFC Meter Pulses	RSK
B.	Patch Panel Equip Alarm Lights	RSK
C.	External Alarms Energized	RSK
D.	Audible Alarm	RSK
E.	Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK

DATE 8 January 1964

TESTER V. Quinn

SUPERVISOR C.W. Mahler

QUALITY ASSURANCE M. Carico

GEEIA Robert S. Kanger

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION GAG

Transmission Path: From Station GAG to Station GHO

REQUIREMENT	INITIAL IF OK
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	RSK
B. External Alarms Energized	RSK
C. "A" Diversity Path Alarm Light	RSK
D. "A" Power Supply Alarm Lamp Lights (where applicable)	RSK
E. Audible Alarm	RSK
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	RSK
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	RSK
B. External Alarms Energized	RSK
C. "B" Diversity Alarms Energized	RSK
D. "B" Power Supply Alarm Lamp Lights (where applicable)	RSK
E. Audible Alarm	RSK
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	RSK

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3. "A" MODULATION ALARM

A. "A" AFC Pilot Sensor Alarm RSK

B. Patch Panel Equip Alarm Lights RSK

C. External Alarms Energized RSK

D. Audible Alarm RSK

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit RSK

4. "B" MODULATION ALARM

A. "B" AFC Pilot Sensor Alarm Lamp Lights RSK

B. Patch Panel Equip Alarm Lights RSK

C. External Alarms Energized RSK

D. Audible Alarm RSK

E. Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit RSK

5. "A" RF POWER ALARM

A. "A" AFC Meter Pulses RSK

B. Patch Panel Equip Alarm Lights RSK

C. External Alarms Energized RSK

D. Audible Alarm RSK

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit RSK

FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A. "B" AFC Meter Pulses RSK

B. Patch Panel Equip Alarm Lights RSK

C. External Alarms Energized RSK

D. Audible Alarm RSK

E. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit RSK

DATE 9 January 1964

TESTER James Lombardi

SUPERVISOR Randall C. Pachut

QUALITY ASSURANCE William R. Zotz

GEEIA Ralph L. Kruger

AFCS

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION GPE

Transmission Path: From Station GPE to Station GHO

REQUIREMENT	INITIAL IF OK
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	RSK
B. External Alarms Energized	RSK
C. "A" Diversity Path Alarm Light	RSK
D. "A" Power Supply Alarm Lamp Lights (where applicable)	RSK
E. Audible Alarm	RSK
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	RSK
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	RSK
B. External Alarms Energized	RSK
C. "B" Diversity Alarms Energized	RSK
D. "B" Power Supply Alarm Lamp Lights (where applicable)	RSK
E. Audible Alarm	RSK
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	RSK

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3. "A" MODULATION ALARM

A.	"A" AFC Pilot Sensor Alarm	RSK
B.	Patch Panel Equip. Alarm Lights	RSK
C.	External Alarms Energized	RSK
D.	Audible Alarm	RSK
E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK

4. "B" MODULATION ALARM

A.	"B" AFC Pilot Sensor Alarm Lamp Lights	RSK
B.	Patch Panel Equip Alarm Lights	RSK
C.	External Alarms Energized	RSK
D.	Audible Alarm	RSK
E.	Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK

5. "A" RF POWER ALARM

A.	"A" AFC Meter Pulses	RSK
B.	Patch Panel Equip Alarm Lights	RSK
C.	External Alarms Energized	RSK
D.	Audible Alarm	RSK
E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK

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DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A.	"B" AFC Meter Pulses	RSK
B.	Patch Panel Equip Alarm Lights	RSK
C.	External Alarms Energized	RSK
D.	Audible Alarm	RSK
E.	Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK

DATE 10 Jan 64

TESTER Robert Allen

SUPERVISOR George C. Ille

QUALITY ASSURANCE William R. [illegible]

GEEIA Ralph S. Krueger

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION T.I.D.

Transmission Path: From Station T.I.D. to Station T.I.C.

REQUIREMENT	INITIAL IF OK
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	R.S.K.
B. External Alarms Energized	R.S.K.
C. "A" Diversity Path Alarm Light	R.S.K.
D. "A" Power Supply Alarm Lamp Lights (where applicable)	R.S.K.
E. Audible Alarm	R.S.K.
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	R.S.K.
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	R.S.K.
B. External Alarms Energized	R.S.K.
C. "B" Diversity Alarms Energized	R.S.K.
D. "B" Power Supply Alarm Lamp Lights (where applicable)	R.S.K.
E. Audible Alarm	R.S.K.
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	R.S.K.

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3. "A" MODULATION ALARM

A.	"A" AFC Pilot Sensor Alarm	RSK
B.	Patch Panel Equip Alarm Lights	~~R.S.K.~~
C.	External Alarms Energized	R.S.K.
D.	Audible Alarm	~~R.S.K.~~
E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	R.S.K.

4. "B" MODULATION ALARM

A.	"B" AFC Pilot Sensor Alarm Lamp Lights	R.S.K.
B.	Patch Panel Equip Alarm Lights	~~R.S.K.~~
C.	External Alarms Energized	R.S.K.
D.	Audible Alarm	R.S.K.
E.	Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	R.S.K.

5. "A" RF POWER ALARM

A.	"A" AFC Meter Pulses	R.S .K.
B.	Patch Panel Equip Alarm Lights	R.S.K.
C.	External Alarms Energized	R.S.K.
D.	Audible Alarm	R.S.K.
E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	R.S.K.

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A. "B" AFC Meter Pulses R.S.K.

B. Patch Panel Equip Alarm Lights ~~R.S.K.~~

C. External Alarms Energized ~~R.S.K.~~

D. Audible Alarm ~~R.S.K.~~

E. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit R.S.K.

DATE 28 Nov, 1963

TESTER [illegible]

SUPERVISOR Russell E Carter

QUALITY ASSURANCE [illegible]

GEEIA Ralph S Kruger

AFCS Cud W Ruddell

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION TIC

Transmission Path: From Station TIC to Station TID

REQUIREMENT	INITIAL IF OK
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	J.L.
B. External Alarms Energized	J.L.
C. "A" Diversity Path Alarm Light	J.L.
D. "A" Power Supply Alarm Lamp Lights (where applicable)	J.L.
E. Audible Alarm	J.L.
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	J.L.
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	J.L
B. External Alarms Energized	J.L.
C. "B" Diversity Alarms Energized	J.L.
D. "B" Power Supply Alarm Lamp Lights (where applicable)	J.L.
E. Audible Alarm	J.L.
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	J.L.

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3. "A" MODULATION ALARM

A. "A" AFC Pilot Sensor Alarm J.L.

B. Patch Panel Equip Alarm Lights J.L.

C. External Alarms Energized J.L.

D. Audible Alarm J.L.

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit J.L.

4. "B" MODULATION ALARM

A. "B" AFC Pilot Sensor Alarm Lamp Lights J.L.

B. Patch Panel Equip Alarm Lights J.L.

C. External Alarms Energized J.L.

D. Audible Alarm J.L.

E. Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit J.L.

5. "A" RF POWER ALARM

A. "A" AFC Meter Pulses J.L.

B. Patch Panel Equip Alarm Lights J.L.

C. External Alarms Energized J.L.

D. Audible Alarm J.L.

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit J.L.

FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A. "B" AFC Meter Pulses J.L.

B. Patch Panel Equip Alarm Lights J.L.

C. External Alarms Energized J.L.

D. Audible Alarm J.L.

E. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit J.L.

DATE 28 NOVEMBER 1963

TESTER

SUPERVISOR

QUALITY ASSURANCE

GEEIA

FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION TKG

Transmission Path: From Station TKG to Station TAL

REQUIREMENT	INITIAL IF OK
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	J.H.T
B. External Alarms Energized	J.H.T
C. "A" Diversity Path Alarm Light	J.H.T.
D. "A" Power Supply Alarm Lamp Lights (where applicable)	J.H.T.
E. Audible Alarm	J.H.T
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	J.H.T.
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	J.H.T
B. External Alarms Energized	J.H.T.
C. "B" Diversity Alarms Energized	J.H.T.
D. "B" Power Supply Alarm Lamp Lights (where applicable)	J.H.T.
E. Audible Alarm	J.H.T.
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	J.H.T.

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3. "A" MODULATION ALARM

A. "A" AFC Pilot Sensor Alarm J.W.T.

B. Patch Panel Equip Alarm Lights J.W.T.

C. External Alarms Energized J.W.T.

D. Audible Alarm J.W.T.

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit J.W.T.

4. "B" MODULATION ALARM

A. "B" AFC Pilot Sensor Alarm Lamp Lights J.W.T.

B. Patch Panel Equip Alarm Lights J.W.T.

C. External Alarms Energized J.W.T.

D. Audible Alarm J.W.T.

E. Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit J.W.T.

5. "A" RF POWER ALARM

A. "A" AFC Meter Pulses J.W.T.

B. Patch Panel Equip Alarm Lights J.W.T.

C. External Alarms Energized J.W.T.

D. Audible Alarm J.W.T.

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit J.W.T.

FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A. "B" AFC Meter Pulses J.N.T.

B. Patch Panel Equip Alarm Lights J.N.T.

C. External Alarms Energized J.N.T.

D. Audible Alarm J.N.T.

E. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit J.N.T.

DATE 12 December 1963

TESTER Jack N. Tind

SUPERVISOR William R. Burbridge

QUALITY ASSURANCE George E. Malkowicz

GEEIA Gerald A. Wolman

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION TKG

Transmission Path: From Station TKG to Station TKA

REQUIREMENT	INITIAL IF OK
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	DB
B. External Alarms Energized	DB
C. "A" Diversity Path Alarm Light	DB
D. "A" Power Supply Alarm Lamp Lights (where applicable)	DB
E. Audible Alarm	DB
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	N/A
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	db
B. External Alarms Energized	DB
C. "B" Diversity Alarms Energized	DB
D. "B" Power Supply Alarm Lamp Lights (where applicable)	DB
E. Audible Alarm	DB
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	N/A

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3. "A" MODULATION ALARM

A.	"A" AFC Pilot Sensor Alarm	DB
B.	Patch Panel Equip Alarm Lights	DB
C.	External Alarms Energized	DB
D.	Audible Alarm	DB
E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	N/A

4. "B" MODULATION ALARM

A.	"B" AFC Pilot Sensor Alarm Lamp Lights	DB
B.	Patch Panel Equip Alarm Lights	DB
C.	External Alarms Energized	DB
D.	Audible Alarm	DB
E.	Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	N/A

5. "A" RF POWER ALARM

A.	"A" AFC Meter Pulses	DB
B.	Patch Panel Equip Alarm Lights	DB
C.	External Alarms Energized	DB
D.	Audible Alarm	DB
E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	N/A

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

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DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A. "B" AFC Meter Pulses DB

B. Patch Panel Equip Alarm Lights DB

C. External Alarms Energized DB

D. Audible Alarm DB

E. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit N/A

DATE 25 OCTOBER 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph L. Kruger

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION TAL

Transmission Path: From Station TAL to Station TKG

REQUIREMENT	INITIAL IF OK
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	RCG
B. External Alarms Energized	RCG
C. "A" Diversity Path Alarm Light	RCG
D. "A" Power Supply Alarm Lamp Lights (where applicable)	RCG
E. Audible Alarm	RCG
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	RCG
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	RCG
B. External Alarms Energized	RCG
C. "B" Diversity Alarms Energized	RCG
D. "B" Power Supply Alarm Lamp Lights (where applicable)	RCG
E. Audible Alarm	RCG
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	RCG

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3. "A" MODULATION ALARM

A. "A" AFC Pilot Sensor Alarm — RCG

B. Patch Panel Equip Alarm Lights — RCG

C. External Alarms Energized — RCG

D. Audible Alarm — RCG

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit — RCG

4. "B" MODULATION ALARM

A. "B" AFC Pilot Sensor Alarm Lamp Lights — RCG

B. Patch Panel Equip Alarm Lights — RCG

C. External Alarms Energized — RCG

D. Audible Alarm — RCG

E. Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit — RCG

5. "A" RF POWER ALARM

A. "A" AFC Meter Pulses — RCG

B. Patch Panel Equip Alarm Lights — RCG

C. External Alarms Energized — RCG

D. Audible Alarm — RCG

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit — RCG

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DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A. "B" AFC Meter Pulses RCG

B. Patch Panel Equip Alarm Lights RCG

C. External Alarms Energized RCG

D. Audible Alarm RCG

E. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit RCG

DATE 13 DECEMBER, 1963

TESTER

SUPERVISOR Donald Mina

QUALITY ASSURANCE

GEEIA Ralph S. Kruger

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION TKA

Transmission Path: From Station TKA to Station TKG

REQUIREMENT	INITIAL IF OK
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	GK
B. External Alarms Energized	GK
C. "A" Diversity Path Alarm Light	GK
D. "A" Power Supply Alarm Lamp Lights (where applicable)	GK
E. Audible Alarm	GK
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	N/A
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	GK
B. External Alarms Energized	GK
C. "B" Diversity Alarms Energized	GK
D. "B" Power Supply Alarm Lamp Lights (where applicable)	GK
E. Audible Alarm	GK
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	N/A

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3. "A" MODULATION ALARM

A.	"A" AFC Pilot Sensor Alarm	GK
B.	Patch Panel Equip Alarm Lights	GK
C.	External Alarms Energized	GK
D.	Audible Alarm	GK
E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	N/A

4. "B" MODULATION ALARM

A.	"B" AFC Pilot Sensor Alarm Lamp Lights	GK
B.	Patch Panel Equip Alarm Lights	GK
C.	External Alarms Energized	GK
D.	Audible Alarm	GK
E.	Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	N/A

5. "A" RF POWER ALARM

A.	"A" AFC Meter Pulses	GK
B.	Patch Panel Equip Alarm Lights	GK
C.	External Alarms Energized	GK
D.	Audible Alarm	GK
E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	N/A

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

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DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A.	"B" AFC Meter Pulses	GK
B.	Patch Panel Equip Alarm Lights	GK
C.	External Alarms Energized	GK
D.	Audible Alarm	GK
E.	Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	N/A

DATE 23 OCTOBER, 1963

TESTER James H Jonathan

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph A. Bruger

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION TKA

Transmission Path: From Station TKA to Station TKR

REQUIREMENT	INITIAL IF OK
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	OK
B. External Alarms Energized	OK
C. "A" Diversity Path Alarm Light	OK
D. "A" Power Supply Alarm Lamp Lights (where applicable)	OK
E. Audible Alarm	OK
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	OK
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	OK
B. External Alarms Energized	OK
C. "B" Diversity Alarms Energized	OK
D. "B" Power Supply Alarm Lamp Lights (where applicable)	OK
E. Audible Alarm	OK
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	OK

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3. "A" MODULATION ALARM

A. "A" AFC Pilot Sensor Alarm GK

B. Patch Panel Equip Alarm Lights GK

C. External Alarms Energized GK

D. Audible Alarm GK

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit GK

4. "B" MODULATION ALARM

A. "B" AFC Pilot Sensor Alarm Lamp Lights GK

B. Patch Panel Equip Alarm Lights GK

C. External Alarms Energized GK

D. Audible Alarm GK

E. Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit GK

5. "A" RF POWER ALARM

A. "A" AFC Meter Pulses GK

B. Patch Panel Equip Alarm Lights GK

C. External Alarms Energized GK

D. Audible Alarm GK

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit GK

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A.	"B" AFC Meter Pulses	GK
B.	Patch Panel Equip Alarm Lights	GK
C.	External Alarms Energized	GK
D.	Audible Alarm	GK
E.	Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	GK

DATE 22 OCTOBER, 1963

TESTER James H Longshaw

SUPERVISOR Raymond J. Thomas

QUALITY ASSURANCE [illegible]

GEEIA Ralph S. Kruger

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION TKR

Transmission Path: From Station TKR to Station TKA

REQUIREMENT	INITIAL IF OK
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	RCG
B. External Alarms Energized	RCG
C. "A" Diversity Path Alarm Light	RCG
D. "A" Power Supply Alarm Lamp Lights (where applicable)	RCG
E. Audible Alarm	RCG
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	RCG
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	RCG
B. External Alarms Energized	RCG
C. "B" Diversity Alarms Energized	RCG
D. "B" Power Supply Alarm Lamp Lights (where applicable)	RCG
E. Audible Alarm	RCG
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	RCG

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3. "A" MODULATION ALARM

A.	"A" AFC Pilot Sensor Alarm	RCG
B.	Patch Panel Equip Alarm Lights	RCG
C.	External Alarms Energized	RCG
D.	Audible Alarm	RCG
E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RCG

4. "B" MODULATION ALARM

A.	"B" AFC Pilot Sensor Alarm Lamp Lights	RCG
B.	Patch Panel Equip Alarm Lights	RCG
C.	External Alarms Energized	RCG
D.	Audible Alarm	RCG
E.	Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RCG

5. "A" RF POWER ALARM

A.	"A" AFC Meter Pulses	RCG
B.	Patch Panel Equip Alarm Lights	RCG
C.	External Alarms Energized	RCG
D.	Audible Alarm	RCG
E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RCG

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DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A.	"B" AFC Meter Pulses	RCG
B.	Patch Panel Equip Alarm Lights	RCG
C.	External Alarms Energized	RCG
D.	Audible Alarm	RCG
E.	Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RCG

DATE 22 OCTOBER 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph S. Kruger

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION TKR

Transmission Path: From Station TKR to Station TIZ

REQUIREMENT	INITIAL IF OK
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	J.M
B. External Alarms Energized	J.M
C. "A" Diversity Path Alarm Light	J.M
D. "A" Power Supply Alarm Lamp Lights (where applicable)	J.M
E. Audible Alarm	J.M
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	J.M
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	J.M
B. External Alarms Energized	J.M
C. "B" Diversity Alarms Energized	J.M
D. "B" Power Supply Alarm Lamp Lights (where applicable)	J.M
E. Audible Alarm	J.M
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	J.M

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3. "A" MODULATION ALARM

A. "A" AFC Pilot Sensor Alarm — JM

B. Patch Panel Equip Alarm Lights — JM

C. External Alarms Energized — JM

D. Audible Alarm — JM

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit — JM

4. "B" MODULATION ALARM

A. "B" AFC Pilot Sensor Alarm Lamp Lights — JM

B. Patch Panel Equip Alarm Lights — JM

C. External Alarms Energized — JM

D. Audible Alarm — JM

E. Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit — JM

5. "A" RF POWER ALARM

A. "A" AFC Meter Pulses — JM

B. Patch Panel Equip Alarm Lights — JM

C. External Alarms Energized — JM

D. Audible Alarm — JM

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit — JM

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A. "B" AFC Meter Pulses JM

B. Patch Panel Equip Alarm Lights JM

C. External Alarms Energized JM

D. Audible Alarm JM

E. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit JM

DATE 12 NOVEMBER 1963

TESTER [signature]

SUPERVISOR [signature]

QUALITY ASSURANCE [signature]

GEEIA VERIFIED 11/12/63

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION TIZ

Transmission Path: From Station TIZ to Station TKR

REQUIREMENT	INITIAL IF OK
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	JL
B. External Alarms Energized	JL
C. "A" Diversity Path Alarm Light	JL
D. "A" Power Supply Alarm Lamp Lights (where applicable)	JL
E. Audible Alarm	JL
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	JL
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	JL
B. External Alarms Energized	JL
C. "B" Diversity Alarms Energized	JL
D. "B" Power Supply Alarm Lamp Lights (where applicable)	JL
E. Audible Alarm	JL
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	JL

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3. "A" MODULATION ALARM

A. "A" AFC Pilot Sensor Alarm JL

B. Patch Panel Equip Alarm Lights JL

C. External Alarms Energized JL

D. Audible Alarm JL

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit JL

4. "B" MODULATION ALARM

A. "B" AFC Pilot Sensor Alarm Lamp Lights JL

B. Patch Panel Equip Alarm Lights JL

C. External Alarms Energized JL

D. Audible Alarm JL

E. Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit JL

5. "A" RF POWER ALARM

A. "A" AFC Meter Pulses JL

B. Patch Panel Equip Alarm Lights JL

C. External Alarms Energized JL

D. Audible Alarm JL

E. Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit JL

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FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A. "B" AFC Meter Pulses JL

B. Patch Panel Equip Alarm Lights JL

C. External Alarms Energized JL

D. Audible Alarm JL

E. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit JL

DATE 10 NOVEMBER, 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

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FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION GPA

Transmission Path: From Station GIM to Station GPA

	EXPECTED	ACTUAL
1. DIVERSITY TESTS (ALL CONFIGURATIONS)		
A. Pilot Level at A IN terminals of Control Panel	-47 to -53 db	-51.4 db
B. Pilot Level at B IN terminals of Control Panel	-47 to -53 db	-52.4 db
C. Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 ± 0.25 db	-50.0 db
D. Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ± 0.25 db	-50.1 db
E. Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	± 1.0 db	- .2 db
F. Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	± 1.0 db	- .2 db
G. Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	-49.75 db
2. BASEBAND		"A" "B"
A. Level, 100 Kc RX	-34 ± 0.5 db	-33.9 -33.7 db
~~(GPA ONLY)~~ (GA-GPA only).	-40 ± 0.5 db	

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

		EXPECTED "A"	ACTUAL "B"
B. Frequency			
12 Kc	(GA-GPA Link Only)	-34.3	-N/A db
60 Kc		~~-33.9~~	-34.1 db
100 Kc		-34.0	-33.7 db
200 Kc	±0.5 db From 100 Kc Reference Level	-34.2 ~~-33.2~~	-33.4 db
350 Kc		-34.0 ~~-33.7~~	-33.7 db
400 Kc		-34.3 ~~-33.3~~	-33.5 db
500 Kc		-34.4	-34.0 db

3. ORDER WIRE

A. Level, 1 Kc RX	-25 ± 1 dbm	-25 dbm
B. Frequency Response		
0.5 Kc		-26 dbm
1 Kc		-24.9 dbm
1.5 Kc	-2 db + 1 db From 1 Kc Reference Level	-25 dbm
2 Kc		-25 dbm
2.5 Kc		-25.1 dbm
3 Kc		-25.2 dbm
20 Kc	At least 12 db below Reference	-49 dbm

4. INTERMODULATION DISTORTION

A. One MW-503A Link	Minimum Ratio 45 db	46 db

5. RECEIVED SIGNAL POWER

A. Receiver A	+26.3 dbm
B. Receiver B	+26.3 dbm

BRII/85

SITE GPA(GIM)
REF: DD/250 Item #17

6 Feb., 1964

2. BASEBAND FREQUENCY RESPONSE.

A. Level, 100KC RX	(RX 'A' on at GIM). -		-34db
B. Frequency	200KC		-34.2db
	350KC		-34.0db
	400KC		-34.3db

MC:mc

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION GPA

Transmission Path: From Station GIM to Station GPA

6. NET PATH LOSS

A. NPL, Path A -55.0 db

B. NPL, Path B -55.0 db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION GPA

Transmission Path: From Station GIM to Station GPA

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)		76.5 db
B. Receiver B			76 db

DATE 13 November 1963

TESTER Vincent J. Dinn

SUPERVISOR P. Sweeney

QUALITY ASSURANCE M. Corio

GEEIA Gerald A. Walsh

FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION GPA

Transmission Path: From Station GTA to Station GPA

		EXPECTED	ACTUAL
1.	DIVERSITY TESTS (ALL CONFIGURATIONS)		
A.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db	-52 db
B.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db	-52.8 db
C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 ∓ 0.25 db	-50 db
D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ± 0.25 db	-50 db
E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	± 1.0 db	-.3 db
F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	± 1.0 db	-.3 db
G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	-50.1 db

			A	B
2.	BASEBAND			
A.	Level, 100 Kc RX	-34 ± 0.5 db	-34	-34 db
	(GPA ONLY)	-40 ± 0.5 db		

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FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

		EXPECTED	ACTUAL A	ACTUAL B
B. Frequency				
12 Kc	(GA-GPA Link Only)		NA	NA db
60 Kc			-34.4	-34.3 db
100 Kc			-34	-34 db
200 Kc		±0.5 db From 100 Kc Reference Level	-33.8	-33.8 db
350 Kc			-33.9	-33.9 db
400 Kc			-33.9	-33.9 db
500 Kc			-33.9	-33.9 db
3. ORDER WIRE				
A. Level, 1 Kc RX		-25 ± 1 dbm		-25 dbm
B. Frequency Response				
0.5 Kc				-25.8 dbm
1 Kc				-25 dbm
1.5 Kc		-2 db + 1 db From 1 Kc Reference Level		-24.9 dbm
2 Kc				-24.6 dbm
2.5 Kc				-24.4 dbm
3 Kc				-24.3 dbm
20 Kc	At least 12 db below Reference			-50 dbm
4. INTERMODULATION DISTORTION				
A. One MW-503A Link		Minimum Ratio 45 db	A 47 db	B 48 db
5. RECEIVED SIGNAL POWER				
A. Receiver A				-32.2 dbm
B. Receiver B				-32.2 dbm

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FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION GPA

Transmission Path: From Station GTA to Station ?GPA

6. NET PATH LOSS

A. NPL, Path A 61.3 db

B. NPL, Path B 61.3 db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION GPA

Transmission Path: From Station GTA to Station GPA

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)		75.5 db
B. Receiver B			80.0 db

DATE 15 November 1963

TESTER [signature]

SUPERVISOR [signature]

QUALITY ASSURANCE [signature]

GEEIA [signature]

FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION GIM

Transmission Path: From Station GIM to Station GPA

		EXPECTED	ACTUAL
1.	DIVERSITY TESTS (ALL CONFIGURATIONS)		
A.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db	-51.8 db
B.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db	-52.6 db
C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 ± 0.25 db	-50 db
D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ± 0.25 db	-50 db
E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	± 1.0 db	-.5 db
F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	± 1.0 db	0 db
G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	-50 db
2.	BASEBAND		
A.	Level, 100 Kc RX	-34 ± 0.5 db	-34 db
	(GPA ONLY)	-40 ± 0.5 db	

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FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

		EXPECTED	ACTUAL
B. Frequency			
12 Kc	(GA-GPA Link Only)		db
60 Kc			*34.1 3 db
100 Kc			-34.0 db
200 Kc		±0.5 db From 100 Kc Reference Level	-34.4 6 db
350 Kc			* -34.7 3.6 db
400 Kc			* -34.7 3.5 db
500 Kc			* -34.9 3.5 db

* Out of spec

3. ORDER WIRE

A. Level, 1 Kc RX		-25 ± 1 dbm	-25 dbm
B. Frequency Response			
0.5 Kc			-26 dbm
1 Kc			-25 dbm
1.5 Kc		-2 db + 1 db From 1 Kc Reference Level	-24.5 dbm
2 Kc			-24.5 dbm
2.5 Kc			-26 dbm
3 Kc			-24.5 dbm
20 Kc	At least 12 db below Reference		-41 dbm

4. INTERMODULATION DISTORTION

A. One MW-503A Link	Minimum Ratio 45 db	48 db

5. RECEIVED SIGNAL POWER

A. Receiver A	-25 dbm
B. Receiver B	-15 dbm

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST SITE G I M

		EXPECTED	ACTUAL
B. Frequency			
12 Kc	(GA-GPA Link Only)		_____ db
60 Kc			34.3 db
100 Kc			34.0 db
200 Kc		±0.5 db From 100 Kc Reference Level	33.6 db
350 Kc			33.6 db
400 Kc			33.5 db
500 Kc			33.5 db
3. ORDER WIRE			
A. Level, 1 Kc RX		-25 ± 1 dbm	_____ dbm
B. Frequency Response			
0.5 Kc			_____ dbm
1 Kc			_____ dbm
1.5 Kc		-2 db + 1 db From 1 Kc Reference Level	_____ dbm
2 Kc			_____ dbm
2.5 Kc			_____ dbm
3 Kc			_____ dbm
20 Kc	At least 12 db below Reference		_____ dbm
4. INTERMODULATION DISTORTION			
A. One MW-503A Link		Minimum Ratio 45 db	_____ db
5. RECEIVED SIGNAL POWER			
A. Receiver A			_____ dbm
B. Receiver B			_____ dbm

DATE 3 Feb 66

TESTER [illegible]

A.F.C.S. [illegible]

Sheet 2 of 4

ISEI Q.A. [illegible]

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FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION GIM

Transmission Path: From Station GIM to Station GPA

6. NET PATH LOSS

A. NPL, Path A 59.2 db Rcvr "A"

B. NPL, Path B 61.8 db Rcvr "B"

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION GIM

Transmission Path: From Station GIM to Station GPA

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)		~~44~~ 63 db
B. Receiver B			~~65~~ 63 db

DATE 13 November 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph L. Berger

FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION GM

Transmission Path: From Station GM to Station PA

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)		63 db
B. Receiver B			63 db

DATE 7 Feb 1968

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

AFCS Tsgt George E Kung

4-1381

FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION GTA

Transmission Path: From Station GTA to Station GPA

		EXPECTED	ACTUAL
1.	DIVERSITY TESTS (ALL CONFIGURATIONS)		
A.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db	-52.5 db
B.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db	-52 db
C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 ± 0.25 db	-50 db
D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ± 0.25 db	-50 db
E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	± 1.0 db	-50.5 db .5db change
F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	± 1.0 db	-50.25db .25db change
G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	-50.25db
2.	BASEBAND		
A.	Level, 100 Kc RX	-34 ± 0.5 db	-34 db
	(GPA ONLY)	-40 ± 0.5 db	

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FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

		EXPECTED	ACTUAL
B. Frequency			
12 Kc	(GA-GPA Link Only)		N/A db
60 Kc			-34.4 db
100 Kc			-34 db
200 Kc		±0.5 db From 100 Kc Reference Level	-33.95 db
350 Kc			-33.9 db
400 Kc			-33.9 db
500 Kc			-34 db
3. ORDER WIRE			
A. Level, 1 Kc RX		-25 ± 1 dbm	-25 dbm
B. Frequency Response			
0.5 Kc			-25 dbm
1 Kc			-25 dbm
1.5 Kc		-2 db + 1 db From 1 Kc Reference Level	-25 dbm
2 Kc			-25 dbm
2.5 Kc			-24.9 dbm
3 Kc			-25 dbm
20 Kc	At least 12 db below Reference		-71 dbm
4. INTERMODULATION DISTORTION			
A. One MW-503A Link		Minimum Ratio 45 db	* 38 db
	* Out of spec.		
5. RECEIVED SIGNAL POWER			
A. Receiver A			-33.2 dbm
B. Receiver B			-33.2 dbm

FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION G T A

Transmission Path: From Station G T A to Station G P A

6. NET PATH LOSS

A. NPL, Path A 61.2 db

B. NPL, Path B ..... db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

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DATA SHEET

MW-503A LOS LINK TEST

STATION G T A

Transmission Path: From Station G T A to Station G P A

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)		76 db
B. Receiver B			76 db

DATE 14 November 1963

TESTER [illegible]

SUPERVISOR S D Barrett

QUALITY ASSURANCE Bonchel

GEEIA Ralph S Kruger

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION GHO

Transmission Path: From Station GAG to Station GHO

		EXPECTED	ACTUAL
1.	DIVERSITY TESTS (ALL CONFIGURATIONS)		
A.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db	-51.3 db
B.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db	-52.2 db
C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 ± 0.25 db	-50 db
D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ± 0.25 db	-50 db
E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	± 1.0 db	-.2 db
F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	± 1.0 db	-.2 db
G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	-49.9 db
2.	BASEBAND		
A.	Level, 100 Kc RX	-34 ± 0.5 db	-34 db
	(GPA ONLY)	-40 ± 0.5 db	

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DATA SHEET

MW-503A LOS LINK TEST

		EXPECTED	ACTUAL
B. Frequency			
12 Kc	(GA-GPA Link Only)		N/A db
60 Kc			-34.3 db
100 Kc			-34 db
200 Kc		±0.5 db From 100 Kc Reference Level	-33.7 db
350 Kc			-33.8 db
400 Kc			-33.7 db
500 Kc			-33.8 db
3. ORDER WIRE			
A. Level, 1 Kc RX		-25 ± 1 dbm	-25 dbm
B. Frequency Response			
0.5 Kc			-24.7 dbm
1 Kc			-25 dbm
1.5 Kc		-2 db + 1 db From 1 Kc Reference Level	-25.2 dbm
2 Kc			-25.2 dbm
2.5 Kc			-25.1 dbm
3 Kc			-25.2 dbm
20 Kc	At least 12 db below Reference		-44 dbm
4. INTERMODULATION DISTORTION			
A. One MW-503A Link		Minimum Ratio 45 db	48 db
5. RECEIVED SIGNAL POWER			
A. Receiver A			37.5 dbm
B. Receiver B			37.5 dbm

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DATA SHEET

MW-503A LOS LINK TEST

STATION GHO

Transmission Path: From Station GAG to Station GHO

6. NET PATH LOSS

A. NPL, Path A 66.6 db

~~B. NPL, Path B~~ 66.6 db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

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DATA SHEET

MW-503A LOS LINK TEST

STATION GHO

Transmission Path: From Station GAG to Station GHO

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)		76 db
B. Receiver B			76 db

DATE 9 January 1964

TESTER Wm S Gray

SUPERVISOR CW Mallen

QUALITY ASSURANCE [illegible]

GEEIA Ralph S. Kaczor

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DATA SHEET

MW-503A LOS LINK TEST

STATION GHO

Transmission Path: From Station GPE to Station GHO

		EXPECTED	ACTUAL
1.	DIVERSITY TESTS (ALL CONFIGURATIONS)		
A.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db	-51.7 db
B.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db	-52.0 db
C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 ± 0.25 db	-50.0 db
D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ± 0.25 db	-50.0 db
E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	± 1.0 db	-.2 db
F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	± 1.0 db	-.5 db
G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	-49.8 db
2.	BASEBAND		
A.	Level, 100 Kc RX	-34 ± 0.5 db	-34.0 db
	(GPA ONLY)	-40 ± 0.5 db	

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DATA SHEET

MW-503A LOS LINK TEST

		EXPECTED	ACTUAL
B. Frequency			
12 Kc	(GA-GPA Link Only)		N/A db
60 Kc			-34.3 db
100 Kc			-34.0 db
200 Kc		±0.5 db From 100 Kc Reference Level	-33.8 db
350 Kc			-33.9 db
400 Kc			-33.9 db
500 Kc			-34.2 db
3. ORDER WIRE			
A. Level, 1 Kc RX		-25 ± 1 dbm	-25.0 dbm
B. Frequency Response			
0.5 Kc			-24.9 dbm
1 Kc			-25.0 dbm
1.5 Kc		-2 db + 1 db From 1 Kc Reference Level	-25.0 dbm
2 Kc			-25.1 dbm
2.5 Kc			-25.2 dbm
3 Kc			-25.2 dbm
20 Kc	At least 12 db below Reference		-42 dbm
4. INTERMODULATION DISTORTION			
A. One MW-503A Link		Minimum Ratio 45 db	+47.5 db
5. RECEIVED SIGNAL POWER			
A. Receiver A			31.5 dbm
B. Receiver B			31.5 dbm

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DATA SHEET

MW-503A LOS LINK TEST

STATION GHO

Transmission Path: From Station GPE to Station GHO

6. NET PATH LOSS

A. NPL, Path A 60.4 db

B. NPL, Path B N/A db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

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DATA SHEET

MW-503A LOS LINK TEST

STATION GHO

Transmission Path: From Station GPE to Station GHO

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)		76 db
B. Receiver B			76 db

DATE 8-10 January 1964

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

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DATA SHEET

MW-503A LOS LINK TEST

STATION GAG

Transmission Path: From Station GAG to Station GHO

		EXPECTED	ACTUAL
1.	DIVERSITY TESTS (ALL CONFIGURATIONS)		
A.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db	-52 db
B.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db	-52.5 db
C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 ± 0.25 db	-50 db
D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ± 0.25 db	-50 db
E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	± 1.0 db	+0.5 db
F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	± 1.0 db	+0.5 db
G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	-49.75 db
2.	BASEBAND		
A.	Level, 100 Kc RX	-34 ± 0.5 db	-34 db
	(GPA ONLY)	-40 ± 0.5 db	

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MW-503A LOS LINK TEST

		EXPECTED	ACTUAL
B. Frequency			
12 Kc	(GA-GPA Link Only)		N/A db
60 Kc			-34.5 db
100 Kc			-34.0 db
200 Kc		±0.5 db From 100 Kc Reference Level	-34.0 db
350 Kc			-34.0 db
400 Kc			-34.0 db
500 Kc			-34.0 db
3. ORDER WIRE			
A. Level, 1 Kc RX		-25 ± 1 dbm	-25.0 dbm
B. Frequency Response			
0.5 Kc			-25.0 dbm
1 Kc			-25.0 dbm
1.5 Kc		-2 db + 1 db From 1 Kc Reference Level	-24.6 dbm
2 Kc			-24.7 dbm
2.5 Kc			-24.7 dbm
3 Kc			-24.7 dbm
20 Kc	At least 12 db below Reference		-48.0 dbm
4. INTERMODULATION DISTORTION			
A. One MW-503A Link		Minimum Ratio 45 db	48 db
5. RECEIVED SIGNAL POWER			
A. Receiver A			33.7 dbm
B. Receiver B			34.7 dbm

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DATA SHEET

MW-503A LOS LINK TEST

STATION GAG

Transmission Path: From Station GAG to Station GHO

6. NET PATH LOSS

A. NPL, Path A 62.4 db

B. NPL, Path B 64 db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

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DATA SHEET

MW-503A LOS LINK TEST

STATION GAG

Transmission Path: From Station GAG to Station GHO

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)	76 db	
B. Receiver B		76 db	

DATE 9 January 1964

TESTER James Ferrell

SUPERVISOR Lawrence R. Packard

QUALITY ASSURANCE William R. Hoff

GEEIA Ralph S. Krieger

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DATA SHEET

MW-503A LOS LINK TEST

STATION GPE

Transmission Path: From Station GPE to Station GHO

		EXPECTED	ACTUAL
1.	DIVERSITY TESTS (ALL CONFIGURATIONS)		
A.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db	-52.6db
B.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db	-51.6db
C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 ± 0.25 db	-50 db
D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ± 0.25 db	-50. db
E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	± 1.0 db	-50.4 db
F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	± 1.0 db	-50 db
G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	-50 db
2.	BASEBAND		
A.	Level, 100 Kc RX	-34 ± 0.5 db	-34 db
	(GPA ONLY)	-40 ± 0.5 db	

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MW-503A LOS LINK TEST

		EXPECTED	ACTUAL
B. Frequency			
12 Kc	(GA-GPA Link Only)		N/A db
60 Kc			-34 db
100 Kc			-34 db
200 Kc		±0.5 db From 100 Kc Reference Level	-33.6 db
350 Kc			-34 db
400 Kc			-34 db
500 Kc			-34 db
3. ORDER WIRE			
A. Level, 1 Kc RX		-25 ± 1 dbm	-25 dbm
B. Frequency Response			
0.5 Kc			-26 dbm
1 Kc			-25 dbm
1.5 Kc		-2 db + 1 db From 1 Kc Reference Level	24.5 dbm
2 Kc			24.5 dbm
2.5 Kc			24.5 dbm
3 Kc			24.5 dbm
20 Kc	At least 12 db below Reference		46.5 dbm
4. INTERMODULATION DISTORTION			
A. One MW-503A Link		Minimum Ratio 45 db	45.5 db
5. RECEIVED SIGNAL POWER			
A. Receiver A			32.2 dbm
B. Receiver B			32.2 dbm

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DATA SHEET

MW-503A LOS LINK TEST

STATION GPE

Transmission Path: From Station GPE to Station GHO

6. NET PATH LOSS

A. NPL, Path A 61.6 db

B. NPL, Path B 61.6 db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

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DATA SHEET

MW-503A LOS LINK TEST

STATION GPE

Transmission Path: From Station GPE to Station GHO

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)		76 db
B. Receiver B			76 db

DATE 10 Jan 64

TESTER Robert Allbee

SUPERVISOR George C. Ellis

QUALITY ASSURANCE William R. Nash

GEEIA Ralph L. Krueger

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DATA SHEET

MW-503A LOS LINK TEST

STATION TID

Transmission Path: From Station TID to Station TIC

		EXPECTED	ACTUAL
1.	DIVERSITY TESTS (ALL CONFIGURATIONS)		
A.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db	-51.0 db
B.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db	-51.6 db
C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 ± 0.25 db	-50 db
D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ± 0.25 db	-50 db
E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	± 1.0 db	-50.4 db
F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	± 1.0 db	-50.3 db
G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	-50 db
2.	BASEBAND		
A.	Level, 100 Kc RX	-34 ± 0.5 db	-34 db
	(GPA ONLY)	-40 ± 0.5 db	

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MW-503A LOS LINK TEST

		EXPECTED	ACTUAL
B. Frequency			
12 Kc	(GA-GPA Link Only)		N/A db
60 Kc			-34.5 db
100 Kc			-34 db
200 Kc		±0.5 db From 100 Kc Reference Level	-33.5 db
350 Kc			-33.5 db
400 Kc			-33.5 db
500 Kc			-33.5 db
3. ORDER WIRE			
A. Level, 1 Kc RX		-25 ± 1 dbm	-25 dbm
B. Frequency Response			
0.5 Kc			-25.7 dbm
1 Kc			-25 dbm
1.5 Kc		-2 db + 1 db From 1 Kc Reference Level	-24.8 dbm
2 Kc			-24.7 dbm
2.5 Kc			-24.7 dbm
3 Kc			-24.7 dbm
20 Kc	At least 12 db below Reference		-52 dbm
4. INTERMODULATION DISTORTION			
A. One MW-503A Link		Minimum Ratio 45 db	48 db
5. RECEIVED SIGNAL POWER			
A. Receiver A			-32.7 dbm
B. Receiver B			-32.7 dbm

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DATA SHEET

MW-503A LOS LINK TEST

STATION T.I.D.

Transmission Path: From Station T.I.D, to Station T.I.C.

6. NET PATH LOSS

A. NPL, Path A 61 db

B. NPL, Path B N/A db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

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DATA SHEET

MW-503A LOS LINK TEST

STATION T.I.D.

Transmission Path: From Station T.I.D. to Station T.I.C.

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)		76 db
B. Receiver B			76 db

DATE 29, Nov. 1963

TESTER [illegible]

SUPERVISOR Russell E Carter

QUALITY ASSURANCE Patrick Hurst

GEEIA Ralph L Kruger

AFCS

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DATA SHEET

MW-503A LOS LINK TEST

STATION TIC

Transmission Path: From Station TIC to Station TID

		EXPECTED	ACTUAL
1.	DIVERSITY TESTS (ALL CONFIGURATIONS)		
A.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db	-52.5 db
B.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db	-52.5 db
C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 - 0.25 db	-50.0 db
D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ± 0.25 db	-50.0 db
E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	± 1.0 db	-0.5 db
F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	± 1.0 db	-0.4 db
G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	-50.0 db
2.	BASEBAND		
A.	Level, 100 Kc RX	-34 ± 0.5 db	-34.0 db
	(GPA ONLY)	-40 ± 0.5 db	

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MW-503A LOS LINK TEST

		EXPECTED	ACTUAL
B. Frequency			
12 Kc	(GA-GPA Link Only)		N/A db
60 Kc			-34.2 db
100 Kc			-34.0 db
200 Kc		±0.5 db From 100 Kc Reference Level	-33.7 db
350 Kc			-33.8 db
400 Kc			-33.8 db
500 Kc			-34.0 db
3. ORDER WIRE			
A. Level, 1 Kc RX		-25 ± 1 dbm	-25.0 dbm
B. Frequency Response			
0.5 Kc			-25.1 dbm
1 Kc			-25.0 dbm
1.5 Kc		-2 db + 1 db From 1 Kc Reference Level	-24.6 dbm
2 Kc			-24.5 dbm
2.5 Kc			-24.5 dbm
3 Kc			-24.5 dbm
20 Kc	At least 12 db below Reference		-44.0 dbm
4. INTERMODULATION DISTORTION			AT TID
A. One MW-503A Link		Minimum Ratio 45 db	"A" TX "B" TX 45.5 47.0 db
5. RECEIVED SIGNAL POWER			
A. Receiver A			-34.6 dbm
B. Receiver B			-34.6 dbm

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DATA SHEET

MW-503A LOS LINK TEST

STATION TIC

Transmission Path: From Station TIC to Station TID

6. NET PATH LOSS

A. NPL, Path A 64.5 db

B. NPL, Path B 64.5 db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

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DATA SHEET

MW-503A LOS LINK TEST

STATION T1C

Transmission Path: From Station T1C to Station T1D

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)		73.0 db
B. Receiver B			73.5 db

DATE 28 November 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

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DATA SHEET

MW-503A LOS LINK TEST

STATION TKG

Transmission Path: From Station TKG to Station TAL

	EXPECTED	ACTUAL
1. DIVERSITY TESTS (ALL CONFIGURATIONS)		
A. Pilot Level at A IN terminals of Control Panel	-47 to -53 db	-52.8 db
B. Pilot Level at B IN terminals of Control Panel	-47 to -53 db	-52.1 db
C. Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 ± 0.25 db	-50.0 db
D. Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ± 0.25 db	-50.0 db
E. Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	± 1.0 db	-0.7 db
F. Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	± 1.0 db	-0.2 db
G. Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	-50.2 db
2. BASEBAND		
A. Level, 100 Kc RX	-34 ± 0.5 db	-34.1 db
(GPA ONLY)	-40 ± 0.5 db	

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DATA SHEET

MW-503A LOS LINK TEST

		EXPECTED	ACTUAL
B. Frequency			
12 Kc	(GA-GPA Link Only)		N/A db
60 Kc			-34.3db
100 Kc			-34.1db
200 Kc		±0.5 db From 100 Kc Reference Level	-33.9db
350 Kc			-34.1db
400 Kc			-34.0db
500 Kc			-34.1db
3. ORDER WIRE			
A. Level, 1 Kc RX		-25 ± 1 dbm	-25.0dbm
B. Frequency Response			
0.5 Kc			-26.0dbm
1 Kc			-25.0dbm
1.5 Kc		-2 db + 1 db From 1 Kc Reference Level	-24.8dbm
2 Kc			-24.8dbm
2.5 Kc			-24.7dbm
3 Kc			-24.7dbm
20 Kc	At least 12 db below Reference		-50.0dbm
4. INTERMODULATION DISTORTION			
A. One MW-503A Link		Minimum Ratio 45 db TAL	"A" -45.1db "B" -45.0db
5. RECEIVED SIGNAL POWER			
A. Receiver A			-49.4dbm
B. Receiver B			-50.6dbm

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FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION TKG

Transmission Path: From Station TKG to Station TAL

6. NET PATH LOSS

A. NPL, Path A 78.5 db

B. NPL, Path B 79.6 db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

NOTE: During NPL check heavy rain noted at site TAL, time 1445, 12-18-63.

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION TKG

Transmission Path: From Station TKG to Station TAL

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)		66.0 db
B. Receiver B			64.0 db

DATE 13 December 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION TKG

Transmission Path: From Station TKG to Station TKA

		EXPECTED	ACTUAL
1.	DIVERSITY TESTS (ALL CONFIGURATIONS)		
A.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db	-52.6 db
B.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db	-51.3 db
C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 ± 0.25 db	-50 db
D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ± 0.25 db	-50 db
E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	± 1.0 db	+0.5 db
F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	± 1.0 db	+0.25 db
G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	N/A db
2.	BASEBAND		
A.	Level, 100 Kc RX	-34 ± 0.5 db	-34.0 db
	(GPA ONLY)	-40 ± 0.5 db	

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DATA SHEET

MW-503A LOS LINK TEST

		EXPECTED	ACTUAL
B. Frequency			
12 Kc	(GA-GPA Link Only)		N/A db
60 Kc			-34.5 db
100 Kc			-34.0 db
200 Kc		±0.5 db From 100 Kc Reference Level	-34.0 db
350 Kc			-34.0 db
400 Kc			-33.8 db
500 Kc			-33.9 db
3. ORDER WIRE			
A. Level, 1 Kc RX		-25 ± 1 dbm	-25.0 dbm
B. Frequency Response			
0.5 Kc			-25.8 dbm
1 Kc			-25.0 dbm
1.5 Kc		-2 db + 1 db From 1 Kc Reference Level	-24.9 dbm
2 Kc			-24.8 dbm
2.5 Kc			-24.8 dbm
3 Kc			-24.8 dbm
20 Kc	At least 12 db below Reference		-64.0 dbm
4. INTERMODULATION DISTORTION			
A. One MW-503A Link		Minimum Ratio 45 db	45.2 db
5. RECEIVED SIGNAL POWER			
A. Receiver A			-52.1 dbm
B. Receiver B			-47.6 dbm

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION TKG

Transmission Path: From Station TKG to Station TKA

6. NET PATH LOSS

A. NPL, Path A -80.9 db

B. NPL, Path B -77.7 db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION TKG

Transmission Path: From Station TKG to Station TKA

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)		-62.0 db
B. Receiver B			-66.0 db

DATE 25 OCTOBER 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

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FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION TAL

Transmission Path: From Station TAL to Station TKG

		EXPECTED	ACTUAL
1.	DIVERSITY TESTS (ALL CONFIGURATIONS)		
A.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db	-52 db
B.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db	-52 db
C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 ± 0.25 db	-50 db
D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ± 0.25 db	-50 db
E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	± 1.0 db	-50 db
F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	± 1.0 db	-50 db
G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	-50 db
2.	BASEBAND		
A.	Level, 100 Kc RX	-34 ± 0.5 db	-34 db
	(GPA ONLY)	-40 ± 0.5 db	

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DATA SHEET

MW-503A LOS LINK TEST

		EXPECTED	ACTUAL
B. Frequency			
12 Kc	(GA-GPA Link Only)		N/A db
60 Kc			-34.2 db
100 Kc			-34 db
200 Kc		±0.5 db From 100 Kc Reference Level	-33.7 db
350 Kc			-33.9 db
400 Kc			-33.9 db
500 Kc			-34 db
3. ORDER WIRE			
A. Level, 1 Kc RX		-25 ± 1 dbm	-25 dbm
B. Frequency Response			
0.5 Kc			-25.2 dbm
1 Kc			-25 dbm
1.5 Kc		-2 db + 1 db From 1 Kc Reference Level	-25 dbm
2 Kc			-25 dbm
2.5 Kc			-25 dbm
3 Kc			-25 dbm
20 Kc	At least 12 db below Reference		-43 dbm
4. INTERMODULATION DISTORTION			
A. One MW-503A Link		Minimum Ratio 45 db	46 db
5. RECEIVED SIGNAL POWER			
A. Receiver A			47.2 dbm
B. Receiver B			48.2 dbm

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION TAL

Transmission Path: From Station TAL to Station TKG

6. NET PATH LOSS

A. NPL, Path A 75 db

B. NPL, Path B 71 db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION TAL

Transmission Path: From Station TAL to Station TKG

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)		73 db
B. Receiver B			72 db

DATE 13 DECEMBER, 1963

TESTER [illegible]

SUPERVISOR Donald E. [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph S. Kruger

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DATA SHEET

MW-503A LOS LINK TEST

STATION TKA

Transmission Path: From Station TKA to Station TKG

		EXPECTED	ACTUAL
1.	DIVERSITY TESTS (ALL CONFIGURATIONS)		
A.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db	50 -50 db
B.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db	49.5 -49.5 db
C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 ± 0.25 db	50 -50 db
D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ± 0.25 db	50 -50 db
E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	± 1.0 db	50 0 db
F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	± 1.0 db	50 0 db
G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	N/A db
2.	BASEBAND		
A.	Level, 100 Kc RX	-34 ± 0.5 db	-44 db
	(GPA ONLY)	-40 ± 0.5 db	
	(TKA ONLY)	-44 ± 0.5 db	

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DATA SHEET

MW-503A LOS LINK TEST

		EXPECTED	ACTUAL
B. Frequency			
12 Kc	(GA-GPA Link Only)		N/A db
60 Kc			-44 db
100 Kc			-44 db
200 Kc		±0.5 db From 100 Kc Reference Level	-44 db
350 Kc			-44 db
400 Kc			-43.8 db
500 Kc			-43.9 db
3. ORDER WIRE			
A. Level, 1 Kc RX		-25 ± 1 dbm	-25 dbm
B. Frequency Response			
0.5 Kc			-26 dbm
1 Kc			-25 dbm
1.5 Kc		-2 db + 1 db From 1 Kc Reference Level	-25 dbm
2 Kc			-24.6 dbm
2.5 Kc			-24.6 dbm
3 Kc			-24.3 dbm
20 Kc	At least 12 db below Reference		-42 dbm
4. INTERMODULATION DISTORTION			
A. One MW-503A Link		Minimum Ratio 45 db	45 db
5. RECEIVED SIGNAL POWER			
A. Receiver A			46.1 dbm
B. Receiver B			54.5 dbm

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION TKA

Transmission Path: From Station TKA to Station TKB

6. NET PATH LOSS

A. NPL, Path A 76 db

B. NPL, Path B 75. 75.4 db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

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DATA SHEET

MW-503A LOS LINK TEST

STATION TKA

Transmission Path: From Station TKA to Station TKG

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)		70 db
B. Receiver B			69 db

DATE 24 OCTOBER, 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph S. Krieger

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION TKA

Transmission Path: From Station TKA to Station TKR

		EXPECTED	ACTUAL
1.	DIVERSITY TESTS (ALL CONFIGURATIONS)		
A.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db	-50.7 db
B.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db	-50.1 db
C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 ± 0.25 db	-50 db
D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ± 0.25 db	-50 db
E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	± 1.0 db	.1 db
F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	± 1.0 db	.1 db
G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	-50 db
2.	BASEBAND		
A.	Level, 100 Kc RX	-34 ± 0.5 db	-44 db
	(GPA ONLY)	-40 ± 0.5 db	
	(TKA ONLY)	-44 ± 0.5 db	

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MW-503A LOS LINK TEST

		EXPECTED	ACTUAL
B. Frequency			
12 Kc	(GA-GPA Link Only)		N/A db
60 Kc			-44.7 db
100 Kc			-44.2 db
200 Kc		±0.5 db From 100 Kc Reference Level	-44.7 db
350 Kc			-44 db
400 Kc			-44 db
500 Kc			-44.2 db
3. ORDER WIRE			
A. Level, 1 Kc RX		-25 ± 1 dbm	-25 dbm
B. Frequency Response			
0.5 Kc			-25.5 dbm
1 Kc			-25 dbm
1.5 Kc		-2 db + 1 db From 1 Kc Reference Level	-24.8 dbm
2 Kc			-24.5 dbm
2.5 Kc			-24.8 dbm
3 Kc			-24.6 dbm
20 Kc	At least 12 db below Reference		-65.5 dbm
4. INTERMODULATION DISTORTION			
A. One MW-503A Link		Minimum Ratio 45 db	46 db
5. RECEIVED SIGNAL POWER			
A. Receiver A			40.5 dbm
B. Receiver B			46.5 dbm

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION TKA

Transmission Path: From Station TKA to Station TKR

6. NET PATH LOSS

A. NPL, Path A 70.3 db

B. NPL, Path B 76.3 db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

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DATA SHEET

MW-503A LOS LINK TEST

STATION TKA

Transmission Path: From Station TKA to Station TKR

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)		73 db
B. Receiver B			72 db

DATE 24 OCTOBER, 1963

TESTER James H. Fergusson

SUPERVISOR Raymond C. Fetterman

QUALITY ASSURANCE J. M. Kingsbury

GEEIA Ralph S. Krueger

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DATA SHEET

MW-503A LOS LINK TEST

STATION TKR

Transmission Path: From Station TKR to Station TKA

	EXPECTED	ACTUAL
1. DIVERSITY TESTS (ALL CONFIGURATIONS)		
A. Pilot Level at A IN terminals of Control Panel	-47 to -53 db	-51.5 db
B. Pilot Level at B IN terminals of Control Panel	-47 to -53 db	-52.0 db
C. Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 ± 0.25 db	-50.0 db
D. Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ± 0.25 db	-50.0 db
E. Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	± 1.0 db	+0.2 db
F. Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	± 1.0 db	+0.2 db
G. Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	-50.0 db
2. BASEBAND		
A. Level, 100 Kc RX	-34 ± 0.5 db	-34.0 db
(GPA ONLY)	-40 ± 0.5 db	

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DATA SHEET

MW-503A LOS LINK TEST

		EXPECTED	ACTUAL
B. Frequency			
12 Kc	(GA-GPA Link Only)		N/A db
60 Kc			-34.5 db
100 Kc			-34.0 db
200 Kc		±0.5 db From 100 Kc Reference Level	-33.0 db
350 Kc			-34.3db
400 Kc			-34.2db
500 Kc			-34.5db
3. ORDER WIRE			
A. Level, 1 Kc RX		-25 ± 1 dbm	-25.0dbm
B. Frequency Response			
0.5 Kc			-25.5dbm
1 Kc			-25.0dbm
1.5 Kc		-2 db + 1 db From 1 Kc Reference Level	-24.6dbm
2 Kc			-24.3 dbm
2.5 Kc			-24.3 dbm
3 Kc			-24.2 dbm
20 Kc	At least 12 db below Reference		-50.0 dbm
4. INTERMODULATION DISTORTION			
A. One MW-503A Link		Minimum Ratio 45 db	46.0 db
5. RECEIVED SIGNAL POWER			
A. Receiver A			-41.4 dbm
B. Receiver B			-39.3 dbm

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DATA SHEET

MW-503A LOS LINK TEST

STATION TKR

Transmission Path: From Station TKR to Station TKA

6. NET PATH LOSS

A. NPL, Path A 70.8 db

B. NPL, Path B 67.9 db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

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DATA SHEET

MW-503A LOS LINK TEST

STATION TKR

Transmission Path: From Station TKR to Station TKA

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)		71.0 db
B. Receiver B			72.0 db

DATE 23 OCTOBER 1963

TESTER [signature]

SUPERVISOR [signature]

QUALITY ASSURANCE [signature]

GEEIA Ralph S. Krueger

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION TKR

Transmission Path: From Station TKR to Station TIZ

	EXPECTED	ACTUAL
1. DIVERSITY TESTS (ALL CONFIGURATIONS)		
A. Pilot Level at A IN terminals of Control Panel	-47 to -53 db	-52.1 db
B. Pilot Level at B IN terminals of Control Panel	-47 to -53 db	-51.5 db
C. Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 ± 0.25 db	-50.1 db
D. Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ± 0.25 db	-50.0 db
E. Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	± 1.0 db	-0.60 db
F. Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	± 1.0 db	-0.40 db
G. Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	-50.2 db
2. BASEBAND		
A. Level, 100 Kc RX	-34 ± 0.5 db	-34.2 db
(GPA ONLY)	-40 ± 0.5 db	

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DATA SHEET

MW-503A LOS LINK TEST

		EXPECTED	ACTUAL
B. Frequency			
12 Kc	(GA-GPA Link Only)		N/A db
60 Kc			-34.5 db
100 Kc			-34.2 db
200 Kc		±0.5 db From 100 Kc Reference Level	-34.0 db
350 Kc			-34.2 db
400 Kc			-34.0 db
500 Kc			-34.2 db
3. ORDER WIRE			
A. Level, 1 Kc RX		-25 ± 1 dbm	-25.0 dbm
B. Frequency Response			
0.5 Kc			-25.4 dbm
1 Kc			-25.1 dbm
1.5 Kc		-2 db + 1 db From 1 Kc Reference Level	-25.1 dbm
2 Kc			-25.1 dbm
2.5 Kc			-25.0 dbm
3 Kc			-24.9 dbm
20 Kc	At least 12 db below Reference		-56.5 dbm
4. INTERMODULATION DISTORTION			
A. One MW-503A Link		Minimum Ratio 45 db	46 db
5. RECEIVED SIGNAL POWER			
A. Receiver A			-37.9 dbm
B. Receiver B			-39.4 dbm

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FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION TKR

Transmission Path: From Station TKR to Station TIZ

6. NET PATH LOSS

A. NPL, Path A 67.0 db

B. NPL, Path B 68.5 db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

NOTE: The NPL test was performed on ~~9~~ 11 November time ~~1930~~ 1100, and on 12 November time 1210. Readings on both days were the same.

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DATA SHEET

MW-503A LOS LINK TEST

STATION TKR

Transmission Path: From Station TKR to Station TIZ

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)	(AGC=2.2vdc)	76.0 db
B. Receiver B		(AGC=2.0vdc)	77.0 db

DATE 12 NOVEMBER 1963

TESTER [signature]

SUPERVISOR [signature]

QUALITY ASSURANCE [signature]

GEEIA VERIFIED 11/12/63

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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION TIZ

Transmission Path: From Station TIZ to Station TKR

		EXPECTED	ACTUAL
1.	DIVERSITY TESTS (ALL CONFIGURATIONS)		
A.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db	-51.5 db
B.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db	-51.0 db
C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 ± 0.25 db	-50.0 db
D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ± 0.25 db	-50.0 db
E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	± 1.0 db	-.25 db
F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	± 1.0 db	-.5 db
G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	-50 db
2.	BASEBAND		
A.	Level, 100 Kc RX	-34 ± 0.5 db	-34.0 db
	(GPA ONLY)	-40 ± 0.5 db	

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FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

		EXPECTED	ACTUAL
B. Frequency			
12 Kc	(GA-GPA Link Only)		N/A db
60 Kc			-34.3 db
100 Kc			-34.0 db
200 Kc		±0.5 db From 100 Kc Reference Level	-33.9 db
350 Kc			-34.0 db
400 Kc			-34.0 db
500 Kc			-34.2 db
3. ORDER WIRE			
A. Level, 1 Kc RX		-25 ± 1 dbm	-25.0 dbm
B. Frequency Response			
0.5 Kc			-24.8 dbm
1 Kc			-25.0 dbm
1.5 Kc		-2 db + 1 db From 1 Kc Reference Level	-24.8 dbm
2 Kc			-24.8 dbm
2.5 Kc			-24.8 dbm
3 Kc			-24.8 dbm
20 Kc	At least 12 db below Reference		-50.0 dbm
4. INTERMODULATION DISTORTION			
A. One MW-503A Link		Minimum Ratio 45 db	16 db **
5. RECEIVED SIGNAL POWER			
A. Receiver A			-36.5 dbm
B. Receiver B			-36.6 dbm

** THIS TEST NOT VERIFIED BY GHEIA DUE TO LACK OF TEST EQUIPMENT.

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FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION TIZ

Transmission Path: From Station TIZ to Station TKR

6. NET PATH LOSS

A. NPL, Path A 66.3 db

B. NPL, Path B 66.4 db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

STATION TIZ

Transmission Path: From Station TIZ to Station TKR

		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE RATIO			
A. Receiver A	(Refer to FIG. 9 of this procedure for the expected results.)		-75 db
B. Receiver B			-75 db

DATE 11 NOVEMBER 1963

TESTER James Langham

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

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FEDERAL ELECTRIC CORPORATION BRII/31

BIG RALLY II PROJECT

DATA SHEET

AN/TRC-35 STATION

STATION GK

Transmission Path: From Station GK to Station GAR

Transmitter Serial No. #1 392, #2 3557.

Assigned Frequency 246.5 MC

Transmitter, T302/TRC

	EXPECTED	ACTUAL XMTG#1	ACTUAL XMTG#2
1. FREQUENCY	±.002% of assigned	246.498365 MC	246.500 MC
2. POWER OUTPUT	Minimum 50 Watts	80 Watts	83 Watts
3. AUTOMATIC FREQUENCY CONTROL		RSK	RSK Initials
4. LOW POWER ALARM RF Output Power	Maximum 30 Watts	28 Watts	28 Watts

DATE 17 January 1964

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

Sheet 1 of 1

FEDERAL ELECTRIC CORPORATION BRII/31

BIG RALLY II PROJECT

DATA SHEET

AN/TRC-35 STATION

STATION GAR

Transmission Path: From Station Gar to Station GK

Transmitter Serial No. #1 2278, #2 375.

Assigned Frequency 235.5 MC

Transmitter, T302/TRC

	EXPECTED	ACTUAL XMTG#1	ACTUAL XMTG#2
1. FREQUENCY *4710	±.002% of assigned	235.496.058 MC	235.493 MC
2. POWER OUTPUT	Minimum 50 Watts	60 Watts	60 Watts
3. AUTOMATIC FREQUENCY CONTROL		RSK Initials	RSK Initials
4. LOW POWER ALARM RF Output Power	Maximum 30 Watts	28 Watts	28 Watts

DATE 15 January 1964

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

[illegible] Ralph S. Kruger

Sheet 1 of 1

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FEDERAL ELECTRIC CORPORATION BRII/32

BIG RALLY II PROJECT

DATA SHEET

AN/TRC-35 STATION

STATION GK

Transmission Path: From Station GK to Station GAR

Receiver Serial No. #1 2278, #2 2286.

RECEIVER, R-417/TRC (TRC-35)

	EXPECTED	ACTUAL REC#1	ACTUAL REC#2
1. SQUELCH (SENSITIVITY)			
Measure meter reading (C)	approximately 30μa	30 μa	30 μa
Measure meter reading (H)		20 μa	20 μa
Input Signal Level	Max 250 μv	108 μv	160 μv
2. BANDWIDTH			
Lower limit	236.034000 kc	235.866. kc (167)	235.695 kc
Upper limit	235.478.000 kc	235.428. kc	
Bandwidth	540kc ±25 kc	556.000 kc	537.572 kc

DATE 17 January 1964

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

Sheet 1 of 1

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FEDERAL ELECTRIC CORPORATION BRII/32

BIG RALLY II PROJECT

DATA SHEET

AN/TRC-35 STATION

STATION GAR

Transmission Path: From Station GAR to Station GK

Receiver Serial No. #1 229, #2 177.

RECEIVER, R-417/TRC (TRC-35)

	EXPECTED	ACTUAL REC#1	ACTUAL REC#2
1. SQUELCH (SENSITIVITY)			
Measure meter reading (C)	approximately 30μa	30 μa	30 μa
Measure meter reading (H)		6 μa	6 μa
Input Signal Level	Max 250 μv	250 μv	250 μv
2. BANDWIDTH			
Lower limit		200 kc	265 kc
Upper limit		350 kc	300 kc
Bandwidth	540kc ±25 kc	550 kc	565 kc

DATE 15 January 1964

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEE [illegible]

Sheet 1 of 1

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FEDERAL ELECTRIC CORPORATION

BRII/33

BIG RALLY II PROJECT

DATA SHEET

AN/TRC-35 OVERALL TEST

STATION GK

Transmission Path: From Station GK to Station GAR

1. R.F. DEVIATION AND BASEBAND GAIN

Deleted by Errata sheet, dated 23 September 1963

	EXPECTED	ACTUAL XMTG-REC#1	ACTUAL XMTG-REC#2
Signal level (Step D)		- µv	µv
Signal level (Step I)		µv	µv
Receiver output (Step F)	-6 dbm	dbm	dbm
Receiver output (Step K)	0dbm +0.5dbm	dbm	dbm

2. BASEBAND FREQUENCY RESPONSE

FREQUENCY H.P. 200CD	EXPECTED	ACTUAL XMTG-REC#1	ACTUAL XMTG-REC#2
8KC		dbm	dbm
16KC	Within ±1 db	dbm	dbm
32KC	of the 8 KC	dbm	dbm
48KC	level	dbm	dbm
68KC		dbm	dbm
90KC	At least 35db from 8 KC level	dbm	dbm

3. ANTENNA VSWR

		EXPECTED	ACTUAL
Transmit Antenna Current			
Forward	Minimum	30µa	30 µa
Reflected	Maximum	10µa	2 µa
Receive Antenna Current			
Forward	Minimum	30µa	32 µa
Reflected	Maximum	10µa	2 µa

DATE 17 January 1964

TESTER B. Vaccy

SUPERVISOR J.R. Andrews

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

Sheet 1 of 1

5-5

FEDERAL ELECTRIC CORPORATION BRII/33

BIG RALLY II PROJECT

DATA SHEET

AN/TRC-35 OVERALL TEST

STATION GAR

Transmission Path: From Station GAR to Station GK

1. R.F. DEVIATION AND BASEBAND GAIN - See Revised BRII/34
Deleted by Errata Sheet-23 Sept-1963 Section 9.1 of the Test procedure.

	EXPECTED	ACTUAL XMTG-REC#1	ACTUAL XMTG-REC#2
Signal level (Step D)		- µv	µv
Signal level (Step I)		µv	µv
Receiver output (Step F)	-6 dbm	dbm	dbm
Receiver output (Step K)	0dbm +0.5dbm	dbm	dbm

2. BASEBAND FREQUENCY RESPONSE

FREQUENCY H.P. 200CD	EXPECTED	ACTUAL XMTG-REC#1	ACTUAL XMTG-REC#2
8KC		dbm	dbm
16KC	Within ±1 db	dbm	dbm
32KC	of the 8 KC	dbm	dbm
48KC	level	dbm	dbm
68KC		dbm	dbm
90KC	At least 35db from 8 KC level	dbm	dbm

3. ANTENNA VSWR

		EXPECTED	ACTUAL
Transmit Antenna Current			
Forward	Minimum	30µa	30 µa
Reflected	Maximum	10µa	10 µa
Receive Antenna Current			
Forward	Minimum	30µa	30 µa
Reflected	Maximum	10µa	10 µa

DATE 15 January 1964

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph S. Meeger

Sheet 1 of 1

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FEDERAL ELECTRIC CORPORATION
BIG RALLY II PROJECT
DATA SHEET
AN/TRC-35 LINK TESTS

BR II/34

STATION GK

Transmission Path: From GAR to GK

1) Deviation	SYS #1		SYS #2	
a) MTR CAL, TX	RSK	INT	RSK	INT
b) 1 KC ADJ, TX	RSK	INT	RSK	INT
c) MOD ADJ, TX	RSK	INT	RSK	INT
d) TEST OSC ADJ, TCC-3	RSK	INT	RSK	INT
e) MOD 1 KC IN, TX	RSK	INT	RSK	INT
f) MTR CAL, RX	RSK	INT	RSK	INT
g) 1 KC OUT, RX, LINK	RSK	INT	RSK	INT

2) Baseband Frequency Response		EXPECTED	REC #1		REC #2	
TCC-3 TX (1KC) Level		0	dbm			
8 KC			-1.4	dbm	-2.1	dbm
16 KC	± 1 db of		-1.5	dbm	-1.9	dbm
32 KC	8 KC LEVEL		-1.6	dbm	-2.3	dbm
48 KC			-1.9	dbm	-2.4	dbm
68 KC			-2.0	dbm	-2.4	dbm
90 KC	At least 35 db down from 8 KC LEVEL		-47	dbm	-46	dbm

3) Noise Peaks and Spurious Tones

FREQ	NOISE LEVEL SYS #1		NOISE LEVEL SYS #2	
KC		dbm		dbm
		dbm		dbm
		dbm		dbm
NOTE * NO NOISE GREATER THAN -60 dbm		dbm		dbm
		dbm		dbm

NOTE: Record all noise peaks or tones greater than -55 dbm.

DATE 16 JAN. 1964

TESTER B. Gray

SUPV. M. P. Andrews

QA Mario Cosmo

GEEIA Ralph L. Knight

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FEDERAL ELECTRIC CORPORATION
BIG RALLY II PROJECT
DATA SHEET
AN/TRC-35 LINK TESTS

BR II/34

STATION GAR

Transmission Path: From GK to GAR

1) Deviation

	SYS #1		SYS #2	
a) MTR CAL, TX	RSK	INT	RSK	INT
b) 1 KC ADJ, TX	RSK	INT	RSK	INT
c) MOD ADJ, TX	RSK	INT	RSK	INT
d) TEST OSC ADJ, TCC-3	RSK	INT	RSK	INT
e) MOD 1 KC IN, TX	RSK	INT	RSK	INT
f) MTR CAL, RX	RSK	INT	RSK	INT
g) 1 KC OUT, RX, LINK	RSK	INT	RSK	INT

2) Baseband Frequency Response

TCC-3 TX (1KC) Level 0 dbm

	EXPECTED	REC #1	REC #2
8 KC		+2.2 dbm	-2.1 dbm
16 KC	± 1 db of 8 KC LEVEL	+2.5 dbm	-2.0 dbm
32 KC		+2.5 dbm	-2.2 dbm
48 KC		+2.9 dbm	-2.2 dbm
68 KC		+2.7 dbm	-1.7 dbm
90 KC	At least 35 db down from 8 KC LEVEL	-54 dbm	-48 dbm

3) Noise Peaks and Spurious Tones

FREQ		NOISE LEVEL SYS #1	NOISE LEVEL SYS #2
KC	Note: No noise above -60dbm	dbm	dbm
		dbm	dbm
		dbm	dbm
		dbm	dbm
		dbm	dbm

NOTE: Record all noise peaks or tones greater than -55 dbm.

Note: Det.#9, 2140th Comm. Sqd. S/SGT Robert A. Haberly monitored levels sent from Site Gk.
RSK.

DATE 15 January 1964
TESTER [illegible]
SUPV. [illegible]
QA [illegible]
GEEIA [illegible]

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GPA

FEDERAL ELECTRIC CORPORATION BRII/2I
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-80 STATION

STATION G P A

Transmission Path: From Station G P A to Station G H O

Transmitter Serial #1 4022, #2 4423
Assigned Frequency 369.5000 MC
Transmitter, T-302/TRC (MRC-80)

TRANSMITTER #1	EXPECTED	ACTUAL
1. FREQUENCY	± .002% of assigned	369.513 MC
2. POWER OUTPUT	Minimum 50 watts	72 watts
3. AUTOMATIC FREQUENCY CONTROL		A.A. [illegible] initials
4. LOW POWER ALARM rf output power	Maximum 30 watts	30 watts

TRANSMITTER #2	EXPECTED	ACTUAL
1. FREQUENCY	± .002% of assigned	369.513 MC
2. POWER OUTPUT	Minimum 50 watts	70 watts
3. AUTOMATIC FREQUENCY CONTROL		A.A. [illegible] initials
4. LOW POWER ALARM rf output power	Maximum 30 watts	30 watts

DATE 7 JANUARY 1964

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]
Sheet 1 of 1

6-1

FEDERAL ELECTRIC CORPORATION
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-80 STATION

BRII/21

STATION GHO

Transmission Path: From Station GHO to Station GPA

Transmitter Serial #1 #4422, #2 4242
Assigned Frequency 396.5 MC
Transmitter, T-302/TRC (MRC-80)

TRANSMITTER #1	EXPECTED	ACTUAL
1. FREQUENCY	± .002% of assigned	396.501.210 MC
2. POWER OUTPUT	Minimum 50 watts	55 watts
3. AUTOMATIC FREQUENCY CONTROL		RSK initials
4. LOW POWER ALARM rf output power	Maximum 30 watts	28 watts

TRANSMITTER #2	EXPECTED	ACTUAL
1. FREQUENCY	± .002% of assigned	396,498,750 MC
2. POWER OUTPUT	Minimum 50 watts	55 watts
3. AUTOMATIC FREQUENCY CONTROL		RSK initials
4. LOW POWER ALARM rf output power	Maximum 30 watts	28 watts

DATE 7 January 1964

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

Sheet 1 of 1

GEEIA [illegible]

6-2

FEDERAL ELECTRIC CORPORATION BR11/21
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-80 STATION

STATION TKG

Transmission Path: From Station TKG to Station TCO

Transmitter Serial #1 4444, #2 707
Assigned Frequency 446.250 MC
Transmitter, T-302/TRC (MRC-80)

TRANSMITTER #1	EXPECTED	ACTUAL
1. FREQUENCY	± .002% of assigned	446.2491 MC
2. POWER OUTPUT	Minimum 50 watts	66 watts
3. AUTOMATIC FREQUENCY CONTROL		DB initials
4. LOW POWER ALARM rf output power	Maximum 30 watts	30 watts

TRANSMITTER #2	EXPECTED	ACTUAL
1. FREQUENCY	± .002% of assigned	446.2491 MC
2. POWER OUTPUT	Minimum 50 watts	64 watts
3. AUTOMATIC FREQUENCY CONTROL		DB initials
4. LOW POWER ALARM rf output power	Maximum 30 watts	30 watts

DATE 10 December 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE Joseph Malbiniz

GEEIA [illegible]

Sheet 1 of 1

6-3

FEDERAL ELECTRIC CORPORATION BRII/21

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-80 STATION

STATION TKG

Transmission Path: From Station TKG to Station TES

Transmitter Serial #1 4385, #2 4396

Assigned Frequency 455.250 MC

Transmitter, T-302/TRC (MRC-80)

TRANSMITTER #1	EXPECTED	ACTUAL
1. FREQUENCY	± .002% of assigned	*455.23 MC
2. POWER OUTPUT	Minimum 50 watts	64 watts
3. AUTOMATIC FREQUENCY CONTROL		OK initials
4. LOW POWER ALARM rf output power	Maximum 30 watts	29 watts

TRANSMITTER #2	EXPECTED	ACTUAL
1. FREQUENCY	± .002% of assigned	*455.234 MC
2. POWER OUTPUT	Minimum 50 watts	69 watts
3. AUTOMATIC FREQUENCY CONTROL		OK initials
4. LOW POWER ALARM rf output power	Maximum 30 watts	30 watts

* OUT OF SPEC.

DATE 15 December 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEETA [illegible]

Sheet 1 of 1

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FEDERAL ELECTRIC CORPORATION BR11/21

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-80 STATION

STATION TCO

Transmission Path: From Station TCO to Station TKG

Transmitter Serial #1 29, #2 30

Assigned Frequency 402.750 MC

Transmitter, T-302/TRC (MRC-80)

TRANSMITTER #1	EXPECTED	ACTUAL
1. FREQUENCY	± .002% of assigned	402.762 MC
2. POWER OUTPUT	Minimum 50 watts	75 watts
3. AUTOMATIC FREQUENCY CONTROL		RSK initials
4. LOW POWER ALARM rf output power	Maximum 30 watts	28 watts

TRANSMITTER #2	EXPECTED	ACTUAL
1. FREQUENCY	± .002% of assigned	402.761 MC
2. POWER OUTPUT	Minimum 50 watts	67 watts
3. AUTOMATIC FREQUENCY CONTROL		RSK initials
4. LOW POWER ALARM rf output power	Maximum 30 watts	28 watts

DATE 10 DEC. 1963

TESTER R. Ehrman

SUPERVISOR L. Gostoli

QUALITY ASSURANCE [illegible]

GEEIA Sheet 1 of 1 Ralph S. Kruger

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FEDERAL ELECTRIC CORPORATION BR11/21

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-80 STATION

STATION TES

Transmission Path: From Station TES to Station TKG

Transmitter Serial #1 4395, #2 4393

Assigned Frequency 423.75 MC

Transmitter, T-302/TRC (MRC-80)

TRANSMITTER #1	EXPECTED	ACTUAL	
1. FREQUENCY	± .002% of assigned	423.731	MC
2. POWER OUTPUT	Minimum 50 watts	73	watts
3. AUTOMATIC FREQUENCY CONTROL		MB	initials
4. LOW POWER ALARM rf output power	Maximum 30 watts	28	watts

TRANSMITTER #2	EXPECTED	ACTUAL	
1. FREQUENCY	± .002% of assigned	423.722	MC
2. POWER OUTPUT	Minimum 50 watts	75	watts
3. AUTOMATIC FREQUENCY CONTROL		MB	initials
4. LOW POWER ALARM rf output power	Maximum 30 watts	28	watts

DATE 15 December 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

Sheet 1 of 1 GEEIA Ralph S. Hunger

6-6

FEDERAL ELECTRIC CORPORATION BRII/22
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-80 STATION

STATION G P A

Transmission Path: From Station G P A to Station G H O

Power Amplifier Serial # 27 & 25

Amplifier Power Supply, AM2066/TRC (MRC-80)

TRANSMITTER #1	EXPECTED	ACTUAL
1. INPUT POWER	Minimum 50 watts	72 watts
2. OUTPUT POWER	Minimum 500 watts	1000 watts
3. GAIN	Minimum 10 db	10 plus db
4. REFLECTED POWER	For VSWR Reference only	85 watts
5. VSWR		
30 Ft. Parabolic	Maximum 1.4	N/A
End Fire Array	Maximum 1.5	1.65
6. LOW POWER ALARM	3 db down	3 db

TRANSMITTER #2	EXPECTED	ACTUAL
1. INPUT POWER	Minimum 50 watts	70 watts
2. OUTPUT POWER	Minimum 500 watts	1000 watts
3. GAIN	Minimum 10 db	10 plus db
4. REFLECTED POWER	For VSWR Reference only	100 watts
5. VSWR		
30 ft. Parabolic	Maximum 1.4	N/A
End Fire Array	Maximum 1.5	1.63
6. LOW POWER ALARM	3 db down	3 db

DATE 7 January 1964

TESTER R.E. Gibbs

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible] 6-7

Sheet 1 of 1 [illegible]

FEDERAL ELECTRIC CORPORATION BRII/22
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-80 STATION

STATION GHO

Transmission Path: From Station GHO to Station GPA

Power Amplifier Serial # 1-24 #2-23

Amplifier Power Supply, AM2066/TRC (MRC-80)

TRANSMITTER #1	EXPECTED	ACTUAL
1. INPUT POWER	Minimum 50 watts	55 watts
2. OUTPUT POWER	Minimum 500 watts	915 watts
3. GAIN	Minimum 10 db	16 db
4. REFLECTED POWER	For VSWR Reference only	5 watts
5. VSWR		
30 Ft. Parabolic	Maximum 1.4	N/A
End Fire Array	Maximum 1.5	1.23
6. LOW POWER ALARM	3 db down	3 db

TRANSMITTER #2	EXPECTED	ACTUAL
1. INPUT POWER	Minimum 50 watts	55 watts
2. OUTPUT POWER	Minimum 500 watts	1000 watts
3. GAIN	Minimum 10 db	18 db
4. REFLECTED POWER	For VSWR Reference only	13 watts
5. VSWR		
30 ft. Parabolic	Maximum 1.4	N/A
End Fire Array	Maximum 1.5	1.26
6. LOW POWER ALARM	3 db down	3 db

DATE 7 January 1964

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

Sheet 1 of 1 GEEIA [illegible]

FEDERAL ELECTRIC CORPORATION BRII/22
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-80 STATION

STATION TKG

Transmission Path: From Station TKG to Station TCO

Power Amplifier Serial # (1) 23 (2) 26

Amplifier Power Supply, AM2066/TRC (MRC-80)

TRANSMITTER #1	EXPECTED	ACTUAL
1. INPUT POWER	Minimum 50 watts	58 watts
2. OUTPUT POWER	Minimum 500 watts	875 watts
3. GAIN	Minimum 10 db	11.8 db
4. REFLECTED POWER	For VSWR Reference only	15.0 watts
5. VSWR		
30 Ft. Parabolic	Maximum 1.4	1.30
End Fire Array	Maximum 1.5	N/A
6. LOW POWER ALARM	3 db down	3.0 db

TRANSMITTER #2	EXPECTED	ACTUAL
1. INPUT POWER	Minimum 50 watts	57 watts
2. OUTPUT POWER	Minimum 500 watts	900 watts
3. GAIN	Minimum 10 db	11.98 db
4. REFLECTED POWER	For VSWR Reference only	8.0 watts
5. VSWR		
30 ft. Parabolic	Maximum 1.4	1.21
End Fire Array	Maximum 1.5	N/A
6. LOW POWER ALARM	3 db down	3.0 db

DATE 10 December 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE Joseph Malkiewicz 6-9

Sheet 1 of 1 GEEIA [illegible]

FEDERAL ELECTRIC CORPORATION BRII/22
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-80 STATION

STATION TCO

Transmission Path: From Station TCO to Station TKG

Power Amplifier Serial # 29

Amplifier Power Supply, AM2066/TRC (MRC-80)

TRANSMITTER #1	EXPECTED	ACTUAL
1. INPUT POWER	Minimum 50 watts	70 watts
2. OUTPUT POWER	Minimum 500 watts	800 watts
3. GAIN	Minimum 10 db	11 db
4. REFLECTED POWER	For VSWR Reference only	3.5 watts
5. VSWR		
30 Ft. Parabolic	Maximum 1.4	1.22
End Fire Array	Maximum 1.5	N/A
6. LOW POWER ALARM	3 db down	-3 db

TRANSMITTER #2	EXPECTED	ACTUAL
1. INPUT POWER	Minimum 50 watts	54 watts
2. OUTPUT POWER	Minimum 500 watts	800 watts
3. GAIN	Minimum 10 db	12 db
4. REFLECTED POWER	For VSWR Reference only	2 watts
5. VSWR		
30 ft. Parabolic	Maximum 1.4	1.22
End Fire Array	Maximum 1.5	N/A
6. LOW POWER ALARM	3 db down	-3 db

DATE 10 DEC. 1963
TESTER R. Shugrue
SUPERVISOR A. Frostad
QUALITY ASSURANCE [illegible] 6-10
Sheet 1 of 1
GEETA Roland L. Thomas

FEDERAL ELECTRIC CORPORATION BRII/22
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-80 STATION

STATION TKG

Transmission Path: From Station TKG to Station TES

Power Amplifier Serial # (1) 32 #(2) 31

Amplifier Power Supply, AM2066/TRC (MRC-80)

TRANSMITTER #1	EXPECTED	ACTUAL
1. INPUT POWER	Minimum 50 watts	56 watts
2. OUTPUT POWER	Minimum 500 watts	770 watts
3. GAIN	Minimum 10 db	13.8 db
4. REFLECTED POWER	For VSWR Reference only	13.0 watts
5. VSWR		
30 Ft. Parabolic	Maximum 1.4	1.28
End Fire Array	Maximum 1.5	N/A
6. LOW POWER ALARM	3 db down	3.0 db

TRANSMITTER #2	EXPECTED	ACTUAL
1. INPUT POWER	Minimum 50 watts	56 watts
2. OUTPUT POWER	Minimum 500 watts	770 watts
3. GAIN	Minimum 10 db	13.8 db
4. REFLECTED POWER	For VSWR Reference only	9.5 watts
5. VSWR		
30 ft. Parabolic	Maximum 1.4	1.25
End Fire Array	Maximum 1.5	N/A
6. LOW POWER ALARM	3 db down	3.0 db

DATE 15 DECEMBER, 1963
TESTER [illegible]
SUPERVISOR [illegible]
QUALITY ASSURANCE [illegible] 6-11
Sheet 1 of 1 GEEIA [illegible]

FEDERAL ELECTRIC CORPORATION BRII/22
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-80 STATION

STATION TES

Transmission Path: From Station TES to Station TKG

Power Amplifier Serial # #1 34 #2 33

Amplifier Power Supply, AM2066/TRC (MRC-80)

TRANSMITTER #1 H	EXPECTED	ACTUAL
1. INPUT POWER	Minimum 50 watts	60 watts
2. OUTPUT POWER	Minimum 500 watts	800 watts
3. GAIN	Minimum 10 db	11.8 db
4. REFLECTED POWER	For VSWR Reference only	8 watts
5. VSWR		
30 Ft. Parabolic	Maximum 1.4	1.17
End Fire Array	Maximum 1.5	N/A
6. LOW POWER ALARM	3 db down	3 db

TRANSMITTER #2	EXPECTED	ACTUAL
1. INPUT POWER	Minimum 50 watts	60 watts
2. OUTPUT POWER	Minimum 500 watts	800 watts
3. GAIN	Minimum 10 db	11.8 db
4. REFLECTED POWER	For VSWR Reference only	2 watts
5. VSWR		
30 ft. Parabolic	Maximum 1.4	1.18
End Fire Array	Maximum 1.5	N/A
6. LOW POWER ALARM	3 db down	3 db

DATE 15 December 1963
TESTER M. Rusch
SUPERVISOR R. Cellbeck
QUALITY ASSURANCE Stan Sandell 6-12
Sheet 1 of 1 GEEIA Ralph L. Bergen

FEDERAL ELECTRIC CORPORATION BRII/23
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-80 STATION

STATION G P A

Transmission Path: From Station G P A To Station G H O

Receiver Serial # 4299 & 4434

Receiver, R-417/TRC with Selector SA-607/TRC (MRC-80)

	EXPECTED	ACTUAL
1. COMBING ACTION		
Output, Channel 1	50mv ± 0.5 db	~~47~~ 50 mv
Output, Channel 2	50mv ± 0.5 db	~~48~~ 50 mv
Combined output, Channels 1 & 2	50mv ± 3 db - 0	~~Reading not taken~~ 50 mv
2. QUIETING SENSITIVITY		
Input level Rec #1	Maximum 3uv	2.6 uv
Input level Rec #2	Maximum 3uv	2.9 uv

		REC #1	REC #2
3. BANDWIDTH			
Lower limit		275 KC	320 KC
Upper limit		280 KC	230 KC
Bandwidth	540KC ± 25KC	555 KC	550 KC
4. VSWR			
30 Ft. Parabolic	Maximum 1.4	N/A	N/A
End Fire Array	Maximum 1.5	1.4	1.4

DATE 7 JANUARY 1964
TESTER [illegible]
SUPERVISOR [illegible] 6-13
QUALITY ASSURANCE [illegible]
GEEIA [illegible]

BR/47
Data sheet 23

SITE GPA(GHO)

Ref: DD/250 item #2

1. Combining Action

A. Output channel 1	50mv + 0.5db	50mv.
B. Output channel 2	" "	50mv.
C. Combined output channel 1&2	50mv + 3db - 0db	50mv.

MC:mc

6-13A

FEDERAL ELECTRIC CORPORATION BRII/23

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-80 STATION

STATION GHO

Transmission Path: From Station GHO To Station GPA

Receiver Serial # 1-4251 #2-4256

Receiver, R-417/TRC with Selector SA-607/TRC (MRC-80)

	EXPECTED	ACTUAL
1. COMBING ACTION		
Output, Channel 1	50mv ± 0.5 db	50 mv
Output, Channel 2	50mv ± 0.5 db	50 mv
Combined output, Channels 1 & 2	50mv ± 3 db - 0	50 mv
2. QUIETING SENSITIVITY		
Input level Rec #1	Maximum 3uv	3 uv
Input level Rec #2	Maximum 3uv	*3.85uv

		REC #1	REC #2
3. BANDWIDTH			
Lower limit		369.2299MC	369.2339MC
Upper limit		369.7706MC	369.7707MC
Bandwidth	540KC ± 25KC	540 KC	546.8 KC
4. VSWR			
30 Ft. Parabolic	Maximum 1.4	N/A	N/A
End Fire Array	Maximum 1.5	1.14	1.10

* Quieting Sensitivity RX#2 is out of specifications.

DATE 7 January 1964

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible] 6-17

GEEIA Ralph S. Kruger

FEDERAL ELECTRIC CORPORATION BRII/23

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-80 STATION

STATION TKG

Transmission Path: From Station TKG To Station TCO

Receiver Serial # (1) 4286 (2) 4397

Receiver, R-417/TRC with Selector SA-607/TRC (MRC-80)

	EXPECTED	ACTUAL
1. COMBING ACTION		
Output, Channel 1	50mv ± 0.5 db	GAIN 51.0 ~~*27.0~~ mv
Output, Channel 2	50mv ± 0.5 db	GAIN 51.0 ~~*54.0~~ mv
Combined output, Channels 1 & 2	50mv + 3 db - 0	GAIN SIG ON *1.88.0 ~~55.0~~ mv GAIN SIG ON *2.87.0
2. QUIETING SENSITIVITY		
Input level Rec #1	Maximum 3uv	1.20 uv
Input level Rec #2	Maximum 3uv	2.60 uv

		REC #1	REC #2
3. BANDWIDTH			
Lower limit		471 KC ~~471~~KC	446 KC
Upper limit		859 KC ~~859~~KC	902 KC
Bandwidth	540KC ± 25KC	*388 ~~*388~~KC	*456 KC
4. VSWR			
30 Ft. Parabolic	Maximum 1.4	1.16	1.19
End Fire Array	Maximum 1.5	N/A	N/A

* OUT OF SPEC.

DATE 10 December 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE Joseph Mullinnix

GEEIA [illegible]

FEDERAL ELECTRIC CORPORATION BRII/23

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-80 STATION

STATION TCO

Transmission Path: From Station TWO To Station TKG

Receiver Serial # #1, 3991 #2, 3223

Receiver, R-417/TRC with Selector SA-607/TRC (MRC-80)

	EXPECTED	ACTUAL
1. COMBING ACTION		
Output, Channel 1	50mv ± 0.5 db	50 mv
Output, Channel 2	50mv ± 0.5 db	50 mv
Combined output, Channels 1 & 2	50mv + 3 db - 0	50 mv
2. QUIETING SENSITIVITY		
Input level Rec #1	Maximum 3uv	2.8 uv
Input level Rec #2	Maximum 3uv	2.7 uv

		REC #1	REC #2
3. BANDWIDTH			
Lower limit		286 KC	289 KC
Upper limit		254 KC	271 KC
Bandwidth	540KC ± 25KC	540 KC	560 KC
4. VSWR			
30 Ft. Parabolic	Maximum 1.4	1.22	1.19
End Fire Array	Maximum 1.5	N/A	N/A

DATE 10 DEC. 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph L. Kruger

6-16

FEDERAL ELECTRIC CORPORATION BRII/23

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-80 STATION

STATION TKG

Transmission Path: From Station TKG To Station TES

Receiver Serial # (1) 4429 #(2) 277

Receiver, R-417/TRC with Selector SA-607/TRC (MRC-80)

	EXPECTED	ACTUAL
1. COMBING ACTION		
Output, Channel 1	50mv ± 0.5 db	* mv
Output, Channel 2	50mv ± 0.5 db	* mv
Combined output, Channels 1 & 2	50mv ± 3 db - 0	* mv
2. QUIETING SENSITIVITY		
Input level Rec #1	Maximum 3uv	2.9uv for Dwg Addendum 3.0 uv
Input level Rec #2	Maximum 3uv	3.0 uv

		REC #1	REC #2
3. BANDWIDTH			
Lower limit		~~-247~~ KC	-290 KC
Upper limit		~~+210~~ KC	+120 KC
Bandwidth	540KC ± 25KC	523.7 for Dwg Addendum * ~~457~~ KC	* 410 KC
4. VSWR			
30 Ft. Parabolic	Maximum 1.4	1.26	1.11
End Fire Array	Maximum 1.5	N/A	N/A

* OUT OF SPEC.

DATE 15 December 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEBIA [illegible]

6-17

FEDERAL ELECTRIC CORPORATION BRII/23

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-80 STATION

STATION TES

Transmission Path: From Station TES To Station TKG

Receiver Serial #1- 4408 #2- 967

Receiver, R-417/TRC with Selector SA-607/TRC (MRC-80)

	EXPECTED	ACTUAL
1. COMBING ACTION		
Output, Channel 1	50mv ± 0.5 db	50 mv
Output, Channel 2	50mv ± 0.5 db	50 mv
Combined output, Channels 1 & 2	50mv + 3 db - 0	50 mv
2. QUIETING SENSITIVITY		
Input level Rec #1	Maximum 3uv	2.5 uv
Input level Rec #2	Maximum 3uv	2.75 uv

		REC #1	REC #2
3. BANDWIDTH			
Lower limit		268 KC	278 KC
Upper limit		266 KC	285 KC
Bandwidth	540KC ± 25KC	534 KC	563 KC
4. VSWR			
30 Ft. Parabolic	Maximum 1.4	1.06	1.04
End Fire Array	Maximum 1.5	N/A	N/A

DATE 15 December 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph L. Kruger 6-12

FEDERAL ELECTRIC CORPORATION

BRII/24 Rev.
1 October 1963

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-80 LINK TESTS

STATION G P A

Transmission Path: From G P A to G H O

1. DEVIATION	SYS #1	SYS #2
A. MTR CAL, TX	A.A. Int.	A.A. Int.
B. 1KC ADJ, TX	A.A. Int.	A.A. Int.
C. MOD ADJ, TX	A.A. Int.	A.A. Int.
D. MOD 1KC IN, TX	A.A. Int.	A.A. Int.

2. BASEBAND FREQUENCY RESPONSE
REQUIREMENT: Within ± 1db of 32KC Reference Frequency
(See NOTE)

8 KC	.5 dbm	-.3 dbm
16 KC	.4 dbm	-.1 dbm
24 KC	.3 dbm	-.1 dbm
32 KC (Reference)	0 dbm	0 dbm
40 KC	0 dbm	-.2 dbm
48 KC	.1 dbm	-.1 dbm
56 KC	0 dbm	-.1 dbm
68 KC	-.4 dbm	-.6 dbm
90 KC Regrd.: 35db below 32KC Reference	-48 dbm	-49.5 dbm

NOTE: Due to the nature of tropospheric scatter, this requirement may be exceeded for short term variations.

3. NOISE PEAKS AND SPURIOUS TONES

Freq. 1KC

		NOISE LEVEL SYS #1	NOISE LEVEL SYS #2
_____		_____ dbm	_____ dbm
_____	NO TONES GREATER THAN -55 dbm WERE NOTED	_____ dbm	_____ dbm
_____		_____ dbm	_____ dbm
_____		_____ dbm	_____ dbm
_____		_____ dbm	_____ dbm

NOTE: Record all noise peaks or tones greater than -55dbm.

DATE 7 JANUARY 1964

TESTER R. E. Hebbon

SUPERVISOR P. Sweeney

QUALITY ASSURANCE [illegible]

GEEIA Sgt. [illegible]

6-20

FEDERAL ELECTRIC CORPORATION

BRII/24 Rev.
1 October 1963

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-80 LINK TESTS

STATION GHO

Transmission Path: From GPA to GHO

1. DEVIATION	SYS #1	SYS #2
A. MTR CAL, TX	RSK Int.	RSK Int.
B. 1KC ADJ, TX	RSK Int.	RSK Int.
C. MOD ADJ, TX	RSK Int.	RSK Int.
D. MOD 1KC IN, TX	RSK Int.	RSK Int.

2. BASEBAND FREQUENCY RESPONSE
REQUIREMENT: Within ± 1db of 32KC Reference Frequency
(See NOTE)

8 KC	-.5 dbm	-.7 dbm
16 KC	-.25 dbm	-.5 dbm
24 KC	-.25 dbm	-.4 dbm
32 KC (Reference)	-.25 dbm	-.4 dbm
40 KC	-.25 dbm	-.3 dbm
48 KC	0 dbm	-.2 dbm
56 KC	-.20 dbm	-.2 dbm
68 KC	-.5 dbm	-.7 dbm
90 KC Regrd.: 35db below 32KC Reference	-39.5 dbm	-44 dbm

NOTE: Due to the nature of tropospheric scatter, this requirement may be exceeded for short term variations.

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8. NOISE PEAKS AND SPURIOUS TONES

Freq. 1KC

		NOISE LEVEL SYS #1	NOISE LEVEL SYS #2
_____		_____ dbm	_____ dbm
_____	Note: No noise above -65dbm	_____ dbm	_____ dbm
_____		_____ dbm	_____ dbm
_____		_____ dbm	_____ dbm
_____		_____ dbm	_____ dbm

NOTE: Record all noise peaks or tones greater than -55dbm.

DATE 7 January 1964

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph S. Kruger

6-22

FEDERAL ELECTRIC CORPORATION
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-80 LINK TESTS

BRII/24 REV
1 October 1963

STATION TKG

Transmission Path: From TKG to TCO

1. DEVIATION

	SYS #1	SYS #2
A. MTR CAL, TX	NB Int.	NB Int.
B. 1KC ADJ, TX	NB Int.	NB Int.
C. MOD ADJ, TX	NB Int.	NB Int.
D. MOD 1KC IN, TX	NB Int.	NB Int.

2. BASEBAND FREQUENCY RESPONSE
REQUIREMENT: Within ± 1db of 32KC
Reference Frequency
(See NOTE)

	SYS #1	SYS #2
8 KC	-1.4 dbm	-1.0 dbm
16 KC	-1.2 dbm	-0.9 dbm
24 KC	-0.8 dbm	-0.8 dbm
32 KC (Reference)	-0.4 dbm	-0.7 dbm
40 KC	-0.1 dbm	-0.7 dbm
48 KC	+0.3 dbm	-0.8 dbm
56 KC	+0.4 dbm	-0.9 dbm
68 KC	+0.3 dbm	-1.1 dbm
90 KC Regrd.: 35db below 32KC Reference	-52.5 dbm	-55.0 dbm

NOTE: Due to the nature of tropospheric scatter, this requirement may be exceeded for short term variations.

3. NOISE PEAKS AND SPURIOUS TONES

Freq. 1KC

		NOISE LEVEL SYS #1	NOISE LEVEL SYS #2
N/A	Baseband scanned, no levels found greater than -55dbm.	N/A dbm	N/A dbm
N/A		N/A dbm	N/A dbm
N/A		N/A dbm	N/A dbm
N/A		N/A dbm	N/A dbm
N/A		N/A dbm	N/A dbm

NOTE: Record all noise peaks or tones greater than -55dbm.

DATE 10 December 1963
TESTER [illegible]
SUPERVISOR [illegible]
QUALITY ASSURANCE [illegible]
GEEIA [illegible]

6-23

FEDERAL ELECTRIC CORPORATION

BRII/24 Rev.
1 October 1963

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-80 LINK TESTS

STATION TCO

Transmission Path: From TCO to TKG

1. DEVIATION	SYS #1	SYS #2
A. MTR CAL, TX	RE RE Int.	RE RE Int.
B. 1KC ADJ, TX	RE RE Int.	RE RE Int.
C. MOD ADJ, TX	RE RE Int.	RE RE Int.
D. MOD 1KC IN, TX	RE RE Int.	RE RE Int.

2. BASEBAND FREQUENCY RESPONSE
REQUIREMENT: Within ± 1db of 32KC Reference Frequency
(See NOTE)

8 KC	+4.5 dbm	+4 dbm
16 KC	+4.75 dbm	+4 dbm
24 KC	+4.75 dbm	+4 dbm
32 KC (Reference)	+5 dbm	+4 dbm
40 KC	+4.5 dbm	+4 dbm
48 KC	+4.5 dbm	+4 dbm
56 KC	+4 dbm	+3.5 dbm
68 KC	+4 dbm	+4 dbm
90 KC Regrd.: 35db below 32KC Reference	-55 dbm	-58 dbm

NOTE: Due to the nature of tropospheric scatter, this requirement may be exceeded for short term variations.

6-24

3. NOISE PEAKS AND SPURIOUS TONES

Freq. 1KC

	NOISE LEVEL	
	SYS #1	SYS #2
NONE	NONE dbm	NONE dbm
NONE	NONE dbm	NONE dbm
NONE	NONE dbm	NONE dbm
NONE	NONE dbm	NONE dbm
NONE	NONE dbm	NONE dbm

NOTE: Record all noise peaks or tones greater than -55dbm.

DATE 10 DEC. 1963

TESTER R E [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph S. Krueger

FERERAL ELECTRIC CORPORATION
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-80 LINK TESTS

BRII/24 REV.
1 OCTOBER 1963

STATION TKG

Transmission Path: From TKG to TES

1. DEVIATION

	SYS #1	SYS. #2
A. MTR CAL,TX	Db Int.	Db Int.
B. 1KC ADJ,TX	Db Int.	6 Db Int.
C. MOD ADJ,TX	Db Int.	Db Int.
D. MOD 1KC IN,TX	Db Int.	Db Int.

2. BASEBAND FREQUENCY RESPONSE
REQUIREMENT: Within ±1db of 32KC Reference Frequency
(See NOTE)

8 KC	-9.7 dbm	-9.2dbm
16 KC	-9.8 dbm	-9.1dbm
24 KC	-9.7 dbm	-9.2dbm
32 KC (Rerference)	-9.8 dbm	-9.3dbm
40 KC	-9.5 dbm	-9.3dbm
48 KC	-9.4 dbm	-9.4dbm
56 KC	-9.8 dbm	-9.4dbm
68 KC	-9.8 dbm	-9.2dbm
90 KC Regrd: 35db below 32KC Reference	-63.0dbm	-50.0dbm
	N/A dbm	N/Adbm

NOTE: Due to the nature of tropospheric scatter, this requirement may be exceeded for short term variations.

3. NOISE PEAKS AND SPURIOUS TONES
Freq. 1 KC

		NOISE LEVEL SYS #1	NOISE LEVEL SYS #2
N/A		N/A	N/A
N/A		N/A	N/A
N/A	Baseband scanned,no levels found greater than -55dbm.	N/A	N/A
N/A		N/A	N/A
N/A		N/A	N/A

NOTE: Record all noise peaks or tones greater than -55dbm

DATE 15 December 1963
TESTER [illegible]
SUPERVISOR [illegible]
QUALITY ASSURANCE [illegible]
GEEIA [illegible] 6-26

FEDERAL ELECTRIC CORPORATION

BIG RALLY II PROJECT

BRII/24 Revised
1 Oct. 1963

DATA SHEET
AN/MRC-80 LINK TESTS

STATION TES

Transmission Path: From TES To TKG

1. DEVIATION	SYS #1	SYS #2
A. MTR CAL, TX	MB Int	MB Int
B. 1KC ADJ, TX	MB Int	MB Int
C. MOD ADJ, TX	MB Int	MB Int
D. MOD 1KC IN, TX	MB Int	MB Int

2. BASEBAND FREQUENCY RESPONSE
Requirement: Within ± 1db of 32KC
Reference frequency (See note)

8 KC	-10.5dbm	-10.0 dbm
16KC	-10.5dbm	-10.0 dbm
24KC	-10.5dbm	-9.5 dbm
32KC	-10.5dbm	-10.0 dbm
40KC	-10.5dbm	-10.5 dbm
48KC	-10.5dbm	-10.5 dbm
56KC	-10.75dbm	-10.5 dbm
68KC	-10.0dbm	-9.0 dbm
90KC Required: 35db below 32KC reference	-61.5 dbm	-61.0 dbm

NOTE: Due to the nature of tropospheric scatter, this requirement may be exceeded for short term variations.

3. NOISE PEAKS AND SPURIOUS TONES

FREQUENCY		NOISE LEVEL SYS #1	NOISE LEVEL SYS #2
_____	NO TONES OR NOISE ABOVE -60 dbm.	_____dbm	_____dbm
_____		_____dbm	_____dbm
_____		_____dbm	_____dbm
_____		_____dbm	_____dbm

NOTE: Record all noise peaks or tones greater than - 55 dbm.

DATE 15 Dec 1963

TESTER M. Bush

SUPERVISOR R C Allbeck

QUALITY ASSURANCE Stan Powell

GEEIA Ralph L. Kruger

FEDERAL ELECTRIC CORPORATION BR II/11

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-85 STATION TEST

STATION TTD

Transmission Path: From Station TTD to Station GPA

Exciter Serial No. 037 Frequency 392.5 MC

AN/MRC-85 EXCITER, RADIO

	EXPECTED		ACTUAL
1. POWER OUTPUT			
Power Output	Minimum 9 Watts		10 watts
2. CARRIER FREQUENCY			
Frequency	.001% of assigned		392.5 MC
3. EXCITER RESPONSE AND DEVIATION			
Lower 1 db point			391.705 MC
Upper 1 db point			393.295 MC
Bandwidth	Minimum 1.5 MC		1.59 MC
High Frequency Deviation J-14 on S1893	-19db ± 0.5db	Rec 073 -19.0	Rec 074 -19.0 db
Low Frequency Deviation J2 on S1892	14 mv. ± 1 mv	+13.6	+13.5 mv
4. ORDER WIRE DEVIATION & GAIN			
Oscillator Output	-19.5dbm±0.5dbm	-19.5	-19.5 dbm
Output Level	-10.5dbm±0.5dbm	-10.5	-10.5 dbm
5. PILOT TONE LEVEL AND DEVIATION			
Radio Pilot Level	20 to 35 volts		21.5 volts
Deviation at J14 on S1893	-20dbm±0.5dbm	-19.9	-20.0 dbm
6. DUAL MODULATOR OPERATION			
Exciter No. 1 Driving			Initials
Exciter No. 2 Driving			Initials

DATE 21 NOVEMBER 1963

TESTER Martin Leipholt

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEMIA Ralph L. Krieger

Sheet 1 of 1

FEDERAL ELECTRIC CORPORATION BR II/11

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-85 STATION TEST

STATION TID

Transmission Path: From Station TID to Station GPA

Exciter Serial No. 038 Frequency 392.5 MC

AN/MRC-85 EXCITER, RADIO

	EXPECTED	ACTUAL
1. POWER OUTPUT		
Power Output	Minimum 9 Watts	10 watts
2. CARRIER FREQUENCY		
Frequency	.001% of assigned	392.4998 MC
3. EXCITER RESPONSE AND DEVIATION		
Lower 1 db point		391.3998 MC
Upper 1 db point		393.5998 MC
Bandwidth	Minimum 1.5 MC	2.2 MC
High Frequency Deviation J-14 on S1893	-19db ± 0.5db	Rec 075 Rec 076 -19.0 -19.0 db
Low Frequency Deviation J2 on S1892	14 mv. ± 1 mv	13.0 13.4 mv
4. ORDER WIRE DEVIATION & GAIN		
Oscillator Output	-19.5dbm±0.5dbm	-19.5 -19.5 dbm
Output Level	-10.5dbm±0.5dbm	-10.5 -10.5 dbm
5. PILOT TONE LEVEL AND DEVIATION		
Radio Pilot Level	20 to 35 volts	21.5 volts
Deviation at J14 on S1893	-20dbm±0.5dbm	-20.0 -20.0 dbm
6. DUAL MODULATOR OPERATION		
Exciter No. 1 Driving		_____ Initials
Exciter No. 2 Driving		_____ Initials

DATE 22 NOVEMBER 1963

TESTER Martin Leipkart

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph S. Krueger

Sheet 1 of 1

FEDERAL ELECTRIC CORPORATION BRII/16

BIG RALLY II PROJECT
DATA SHEET
AN/MRC-85 STATION TEST

ADDENDUM

Station GPA

Transmission Path: From Station GPA to Station TID

Exciter Serial No. 1 H Frequency 360,5 MC

AN/~~FRC-39~~ MRC-85 EXCITER, RADIO

	EXPECTED	ACTUAL
1. POWER OUTPUT		
Power Output	Minimum ~~10~~ 9 watts	9.5 watts
2. CARRIER FREQUENCY		
Frequency	.001% of assigned	360.498,310 MC
3. EXCITER RESPONSE AND DEVIATION		
Lower 1 db point		71143 MC
Upper 1 db point		69113 MC
Bandwidth	Minimum 1.5 MC	2.03 MC
4. HF DEVIATION		
Level at J4	-14 dbm ± 0.5 dbm	-14 dbm
5. ADJUSTMENT OF FOUR RECEIVERS		MC Initials
6. LF DEVIATION		
Signal level at J14	-10 dbm ± 0.5 dbm	-10 dbm
7. ORDER WIRE DEVIATION & LEVEL		
Output at J26-J27	-10 dbm ± 0.5 dbm	~~24~~ -10 dbm
8. PILOT TONE LEVEL AND DEVIATION		
Radio Pilot Level at J51	20 to 35 volts	24 volts
Deviation at J14 on S1893	-20 dbm ± 0.5 dbm	-20 dbm
9. DUAL MODULATOR OPERATION		
Exciter No. 1 Driving		* Initials
Exciter No. 2 Driving		* Initials

DATE 11-24-1963
TESTER [illegible]
SUPERVISOR [illegible]
QUALITY ASSURANCE [illegible]

Sheet 1 of 1 [illegible] [illegible]

* Not operational due to defective K-3

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FEDERAL ELECTRIC CORPORATION BRII/16

BIG RALLY II PROJECT
DATA SHEET
AN/MRC-85 STATION TEST

ADDENDUM

Station GPA

Transmission Path: From Station GPA to Station TID

Exciter Serial No. 2 V Frequency 360.5 MC

AN/~~ERC-39~~ MRC-85 EXCITER, RADIO

	EXPECTED	ACTUAL
1. POWER OUTPUT		
Power Output	Minimum ~~10~~ 9 watts	10 watts
2. CARRIER FREQUENCY		
Frequency	.001% of assigned	360.498.069 MC
3. EXCITER RESPONSE AND DEVIATION		
Lower 1 db point		70789 MC
Upper 1 db point		69.131 MC
Bandwidth	Minimum 1.5 MC	1.65 MC
4. HF DEVIATION		
Level at J4	-14 dbm ± 0.5 dbm	-14 dbm
5. ADJUSTMENT OF FOUR RECEIVERS		MC Initials
6. LF DEVIATION		
Signal level at J14	-10 dbm ± 0.5 dbm	-10 dbm
7. ORDER WIRE DEVIATION & LEVEL		
Output at J26-J27	-10 dbm ± 0.5 dbm	-10 dbm
8. PILOT TONE LEVEL AND DEVIATION		
Radio Pilot Level at J51	20 to 35 volts	26 volts
Deviation at J14 on S1893	-20 dbm ± 0.5 dbm	-20 dbm
9. DUAL MODULATOR OPERATION		
Exciter No. 1 Driving		* Initials
Exciter No. 2 Driving		* Initials

DATE 11-24-1963
TESTER [illegible]
SUPERVISOR [illegible]
QUALITY ASSURANCE [illegible]

Sheet 1 of 1
GRB 10 Gerald A Walmer

* Not operational due to defective T61

FEDERAL ELECTRIC CORPORATION BR II/12
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-85 STATION TEST

STATION GPA

Transmission Path: From Station GPA to Station TID

1 KW Amplifier Serial No. 1H Frequency 360.5 MC

Exciter Serial No. 1H

AN/MRC-85 POWER AMPLIFIER, RADIO

		EXPECTED 1 KW	EXPECTED 10 KW	ACTUAL
1. INPUT POWER	Min.	6 watts	6 watts	12 watts
2. OUTPUT POWER	Min.	1 KW	10 KW	1KW watts
3. REFLECTED POWER	Max.	28 watts	280 watts	~~0~~ 25.6 watts
4. VSWR	Max.	1.40	1.40	* 1.38
5. FAULT RECYCLING				MC Initials
6. KLYSTRON COOLANT FLOW	Min.		17 GPM	N/A GPM

* Transmission line swept. (FOR 1.5 MC BANDWIDTH)

DATE 11-20-1963

TESTER [illegible]

SUPERVISOR P. Sweeney

QUALITY ASSURANCE A. Carafa

GREIB [illegible]

7-5

FEDERAL ELECTRIC CORPORATION BR II/12
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-85 STATION TEST

STATION GPA

Transmission Path: From Station GPA to Station TID

1 KW Amplifier Serial No. 2V Frequency 360.5 MC

Exciter Serial No. 2V

AN/MRC-85 POWER AMPLIFIER, RADIO

		EXPECTED 1 KW	EXPECTED 10 KW	ACTUAL
1. INPUT POWER	Min.	6 watts	6 watts	10 watts
2. OUTPUT POWER	Min.	1 KW	10 KW	1KW watts
3. REFLECTED POWER	Max.	28 watts	280 watts	* ~~9~~ 15.0 watts (~~2.25~~ 1.85)
4. VSWR	Max.	1.40	1.40	* 1.28 (1.09)
5. FAULT RECYCLING				MC Initials
6. KLYSTRON COOLANT FLOW	Min.		17 GPM	N/A GPM

* Transmission line swept. (FOR 1.5mc BANDWIDTH)

DATE 11-20-1963

TESTER [illegible signature]

SUPERVISOR P. Sweeney

QUALITY ASSURANCE M. Carioff

GREIB Donald A. Wolman

FEDERAL ELECTRIC CORPORATION BR II/12
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-85 STATION TEST

STATION TID

Transmission Path: From Station TID to Station GPA

1 KW Amplifier Serial No. 013 Frequency 392.5 MC

Exciter Serial No. 038

AN/MRC-85 POWER AMPLIFIER, RADIO

		EXPECTED 1 KW	EXPECTED 10 KW	ACTUAL
1. INPUT POWER	Min.	6 watts	6 watts	6 watts
2. OUTPUT POWER	Min.	1 KW	10 KW	1,000 watts
3. REFLECTED POWER	Max.	28 watts	280 watts	8 watts
4. VSWR	Max.	1.40	1.40	1.~~88~~ 19
5. FAULT RECYCLING				ML Initials
6. KLYSTRON COOLANT FLOW	Min.		17 GPM	N/A GPM

DATE 22 NOVEMBER 1963

TESTER Martin Lyshak

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph S. Kreiger

FEDERAL ELECTRIC CORPORATION BR II/12
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-85 STATION TEST

STATION TID

Transmission Path: From Station TID to Station GPA

1 KW Amplifier Serial No. 014 Frequency 392.5 MC

Exciter Serial No. 037

AN/MRC-85 POWER AMPLIFIER, RADIO

		EXPECTED 1 KW	EXPECTED 10 KW	ACTUAL
1. INPUT POWER	Min.	6 watts	6 watts	6.0 watts
2. OUTPUT POWER	Min.	1 KW	10 KW	1,000 watts
3. REFLECTED POWER	Max.	28 watts	280 watts	15 watts
4. VSWR	Max.	1.40	1.40	1.26
5. FAULT RECYCLING				ML Initials
6. KLYSTRON COOLANT FLOW	Min.		17 GPM	N/A GPM

DATE 21 NOVEMBER 1963

TESTER Marlin Lipshart

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GE-IA Ralph S. Krueger

BR II/12

FEDERAL ELECTRIC CORPORATION
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-85 STATION TEST

STATION TID

Transmission Path: From Station TID to Station GPA

1 KW Amplifier Serial No. 023 Frequency 392.5 MC

Exciter Serial No. 037

AN/MRC-85 POWER AMPLIFIER, RADIO

		EXPECTED 1 KW	EXPECTED 10 KW	ACTUAL
1. INPUT POWER	Min.	6 watts	6 watts	6 watts
2. OUTPUT POWER	Min.	1 KW	10 KW	1,000 watts
3. REFLECTED POWER	Max.	28 watts	280 watts	10 watts
4. VSWR	Max.	1.40	1.40	1.24
5. FAULT RECYCLING				ML Initials
6. KLYSTRON COOLANT FLOW	Min.		17 GPM	N/A GPM

* Spare klystron carriage.

DATE 22 NOVEMBER 1963

TESTER Merlin Lambert

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph L. Kruger

FEDERAL ELECTRIC CORPORATION

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-85 LOCAL STATION TESTS

BR II/13 Rev.
30 September 196

STATION GPA

Transmission Path: Station GPA to Station TID

1. Receiver Gain

	Rec 1 V	Rec 2 H	Rec 3H	Rec 4V
RF Amplifier and Converter				
Required: Minimum 30db	35db	34db	34db	32db
Parametric Amplifier & Converter				
Required: Minimum 33db	N/A	N/A	N/A	N/A

2. Receiver Sensitivity (20db Quieting Level)

	Rec 1V	Rec 2H	Rec 3H	Rec 4V
RF Amplifier (4.5db NF)				
Required: Maximum 4uv	2.2	2.3	2.0	2.6
Parametric Amplifier (2db NF)				
Required : Maximum 2.5uv	N/A	N/A	N/A	N/A

3. DC Control Voltage

	Rec 1V	Rec 2H	Rec 3H	Rec 4V
DC Control Volts				
Required: -35 Volts	-35	-35	-35	-35

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4. Diversity Combiner

	Rec 1V	Rec 4V
Vertical Receiver Outputs (no input)		
Required: Maximum Difference 2db	+ 0.8	- 0.5
Vertical Receiver Outputs (30db quieting-Ref)	-27	-28
Combined (Vert.)		
Required: 1.5 to 4.5db less than individual receiver	-30	-31

	Rec 2H	Rec 3H
Horizontal Receiver Outputs (no input)		
Required: Maximum Difference 2db	+1.25	+1.0
Horizontal Receiver Outputs (30db quieting-Ref)	-29	-30.5
Combined (Horiz.)		
Required: 1.5 to 4.5db less than individual receiver	-32.25	-33.0

5. Receiver Pilot Tone Operation Test MC initial

6. Antenna System VSWR

Required: Maximum 1.40	VERT.	HORIZ.
Antenna 1	1.05	1.28
Antenna 2	1.22	1.05

Date 11-26-1963

Tester [illegible]

Supervisor [illegible]

Quality Assurance [illegible]

GEEIA [illegible]

Note: All measurements made with HP 400 VTVM

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4. Diversity Combiner

	Rec 1V	Rec 4V
Vertical Receiver Outputs (no input)		
Required: Maximum Difference 2db	-26	-27.5
Vertical Receiver Outputs (30db quieting-Ref)	-58.5	-56.5
Combined (Vert.)		
Required: 1.5 to 4.5db less than individual receiver	-60	-58

	Rec 2H	Rec 3H
Horizontal Receiver Outputs (no input)		
Required: Maximum Difference 2db	-25.5	-25.5
Horizontal Receiver Outputs (30db quieting-Ref)	-55	-55.5
Combined (Horiz.)		
Required: 1.5 to 4.5db less than individual receiver	-56.5	-57.5

5. Receiver Pilot Tone Operation Test MC initial

6. Antenna System VSWR

Required: Maximum 1.40

	VERT.	HORIZ.
Antenna 1	1.05	1.28
Antenna 2	1.22	1.05

Date 26 November 1963

Tester [illegible]

Supervisor [illegible]

Quality Assurance [illegible]

GEEIA Gerald A Halloran

7-12

FEDERAL ELECTRIC CORPORATION

BR II/13 Rev.
30 September 196

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-85 LOCAL STATION TESTS

STATION TID

Transmission Path: Station TID to Station GPA

1. Receiver Gain

	Rec 1-H (075)	Rec 2 H (073)	Rec 3 V (076)	Rec 4 (074)
RF Amplifier and Converter				
Required: Minimum 30db	31.8	32	32.2	36.7
Parametric Amplifier & Converter				
Required: Minimum 33db	N/A	N/A	N/A	N/A

2. Receiver Sensitivity (20db Quieting Level)

	Rec 1	Rec 2	Rec 3	Rec 4
RF Amplifier (4.5db NF)				
Required: Maximum 4uv	2.5	3.2	3.1	3.5
Parametric Amplifier (2db NF)				
Required : Maximum 2.5uv	N/A	N/A	N/A	N/A

3. DC Control Voltage

	Rec 1	Rec 2	Rec 3	Rec 4
DC Control Volts				
Required: -35 Volts	-35.0	-35.0	-35.0	-35

4. Diversity Combiner

	Rec 075 1 H	Rec 076 3 V
Vertical Receiver Outputs (no input)		
Required: Maximum Difference 2db	-31.0	-30.8
Vertical Receiver Outputs (30db quieting-Ref)	-59.5	-59.5
Combined (Vert.)		
Required: 1.5 to 4.5db less than individual receiver	-62.3	-62.0

	Rec 073 2 H	Rec 074 4 V
Horizontal Receiver Outputs (no input)		
Required: Maximum Difference 2db	-30.5 ~~-59.5~~	-30.5 ~~-59.5~~
Horizontal Receiver Outputs (30db quieting-Ref)	-60.5	-59.5 ~~-62.0~~
Combined (Horiz.)		
Required: 1.5 to 4.5db less than individual receiver	-62.5	-62.0

5. Receiver Pilot Tone Operation Test ML initial

6. Antenna System VSWR

Required: Maximum 1.40	VERT.	HORIZ.
Antenna 1	1.22	1.22
Antenna 2	1.28	1.32

Date 22/11/65

Tester Marlin Langabast

Supervisor [illegible]

Quality Assurance [illegible]

GEEIA Ralph L. Krieger

FEDERAL ELECTRIC CORPORATION BRII/14
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-85 OVERALL TEST

STATION GPA

Transmission Path: From GPA Station to TID Station

Exciter Serial No. 1H

Receiver Serial No. Rec. A# 1V, Rec. B# 2H

Power Amplifier Serial No. 1H

1. SYSTEM INTERMODULATION

Intermodulation Frequency	EXPECTED NPR	ACTUAL Rec. A 1V	ACTUAL Rec. B 2H
15 KC	~~Maximum -55 dbm~~ Minimum NPR 45db	-58 dbm	-58 dbm
55 KC	~~Maximum -55 dbm~~	-57 dbm	-57 dbm
80 KC	~~Maximum -55 dbm~~	-54 dbm	-57 dbm

2. RADIO BASEBAND FREQUENCY RESPONSE

Frequency	EXPECTED	ACTUAL Rec. A 1V	ACTUAL Rec. B 2H
12 KC		-10.6 dbm	-10.7 dbm
20 KC	-2 + 1 db	-10.0 dbm	-10.0 dbm
30 KC	with respect	-10.0 dbm	-10.2 dbm
40 KC	to 30 KC level	-10.2 dbm	-10.2 dbm
50 KC		-10.6 dbm	-10.6 dbm
60 KC		-10.7 dbm	-10.8 dbm
70 KC		-9.8 dbm	-9.75 dbm
80 KC	±0.25 db	-9.9 dbm	-9.8 dbm
90 KC	with respect	-10 dbm	-10.0 dbm
100 KC	to 90 KC level	-10 dbm	-10.1 dbm
110 KC		-10.1 dbm	-10.1 dbm
120 KC		-10 dbm	-10.25 dbm

DATE 24 November 1963
TESTER [illegible]
SUPERVISOR [illegible]
QUALITY ASSURANCE M. Carter
GEEIA Gerald A Holman

7-15

FEDERAL ELECTRIC CORPORATION BRII/14
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-85 OVERALL TEST

STATION GPA

Transmission Path: From GPA Station to TID Station

Exciter Serial No. 2V

Receiver Serial No. Rec. A# 3H, Rec. B# 4V

Power Amplifier Serial No. 2V

1. SYSTEM INTERMODULATION

Intermodulation Frequency	EXPECTED NPR	ACTUAL Rec. A 3H	ACTUAL Rec. B 4V
15 KC	~~Maximum -55 dbm~~ Minimum NPR 45db	-58 dbm	-60 dbm
55 KC	~~Maximum -55 dbm~~	-51 dbm	-52 dbm
80 KC	~~Maximum -55 dbm~~	-53 dbm	-52 dbm

2. RADIO BASEBAND FREQUENCY RESPONSE

Frequency	EXPECTED	ACTUAL Rec. A 3H	ACTUAL Rec. B 4V
12 KC		-10.7 dbm	-10.7 dbm
20 KC	-2 + 1 db	-10.0 dbm	-10.1 dbm
30 KC	with respect	-10.0 dbm	-10.0 dbm
40 KC	to 30 KC level	-10.25 dbm	-10.2 dbm
50 KC		-10.6 dbm	-10.4 dbm
60 KC		-11.1 dbm	-10.8 dbm
70 KC		-10.2 dbm	-10.2 dbm
80 KC	±0.25 db	-10.1 dbm	-10.1 dbm
90 KC	with respect	-10.0 dbm	-10.0 dbm
100 KC	to 90 KC level	-9.9 dbm	-9.8 dbm
110 KC		-9.8 dbm	-9.8 dbm
120 KC		-9.8 dbm	-9.75 dbm

DATE 24 November 1963
TESTER [signature]
SUPERVISOR [signature]
QUALITY ASSURANCE [signature]
GEEIA Gerald A. Wolman

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FEDERAL ELECTRIC CORPORATION BRII/14
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-85 OVERALL TEST

STATION TID

Transmission Path: From TID Station to GPA Station

Exciter Serial No. 037

Receiver Serial No. Rec. A# 073 H, Rec. B# 074 V

Power Amplifier Serial No. 014

1. SYSTEM INTERMODULATION

Intermodulation Frequency	EXPECTED NPP	ACTUAL Rec. A	ACTUAL Rec. B
15 KC	Minimum NPR 45db ~~Maximum -55 dbm~~	51 dbm	51 dbm
55 KC	~~Maximum -55 dbm~~	51 dbm	50 dbm
80 KC	~~Maximum -55 dbm~~	51 dbm	51 dbm

2. RADIO BASEBAND FREQUENCY RESPONSE

Frequency	EXPECTED	ACTUAL Rec. A	ACTUAL Rec. B
12 KC		-11.1 dbm	-11.2 dbm
20 KC	-2 + 1 db	-10.2 dbm	-10.5 dbm
30 KC	with respect	-9.8 dbm	-10.0 dbm
40 KC	to 30 KC level	-9.4 dbm	-9.6 dbm
50 KC		-9.1 dbm	-9.2 dbm
60 KC		-9.0 dbm	-9.0 dbm
70 KC		-10.0 dbm	-10.0 dbm
80 KC	±0.25 db	-10.0 dbm	-10.0 dbm
90 KC	with respect	-10.0 dbm	-10.0 dbm
100 KC	to 90 KC level	-10.0 dbm	-10.0 dbm
110 KC		-10.0 dbm	-10.0 dbm
120 KC		-10.0 dbm	-10.0 dbm

DATE 21 NOVEMBER 1963
TESTER [illegible]
SUPERVISOR [illegible]
QUALITY ASSURANCE [illegible]
GEEIA Ralph S. Bunger

FEDERAL ELECTRIC CORPORATION BRII/14
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-85 OVERALL TEST

STATION TID

Transmission Path: From TID Station to GPA Station

Exciter Serial No. 038

Receiver Serial No. Rec. A# 1 H 075, Rec. B# 3 V 076

Power Amplifier Serial No. 013

1. SYSTEM INTERMODULATION

Intermodulation Frequency	EXPECTED NPR	ACTUAL Rec. A	ACTUAL Rec. B
15 KC	~~Maximum -55 dbm~~ Minimum NPR 45db	53 dbm	54 dbm
55 KC	~~Maximum -55 dbm~~	53 dbm	51 dbm
80 KC	~~Maximum -55 dbm~~	51 dbm	50 dbm

2. RADIO BASEBAND FREQUENCY RESPONSE

Frequency	EXPECTED	ACTUAL Rec. A	ACTUAL Rec. B
12 KC		-10.7 dbm	-11.0 dbm
20 KC	-2 + 1 db	-11.4 dbm	-10.2 dbm
30 KC	with respect	-10.2 dbm	-9.8 dbm
40 KC	to 30 KC level	-10.0 dbm	-9.6 dbm
50 KC		-9.9 dbm	-9.4 dbm
60 KC		-9.8 dbm	-9.2 dbm
70 KC		-10.0 dbm	-9.9 dbm
80 KC	±0.25 db	-10.0 dbm	-10.0 dbm
90 KC	with respect	-10.0 dbm	-10.0 dbm
100 KC	to 90 KC level	-10.0 dbm	-10.0 dbm
110 KC		-10.0 dbm	-10.0 dbm
120 KC		-10.0 dbm	-10.0 dbm

DATE 22 NOVEMBER 1963
TESTER Martin Lapphart
SUPERVISOR [illegible]
QUALITY ASSURANCE [illegible]
GEEIA Ralph S. Hunger

FEDERAL ELECTRIC CORPORATION BRII/15
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-85 LINK TEST

STATION GPA

Transmission Path: From TID Station to GPA Station

V. Exc. Serial No. _____ V. Rec. Serial No. _____
H. Exc. Serial No. 1H V. Rec. Serial No. _____
V. ____ KW P.A. No. _____ H. Rec. Serial No. 2H
H. 1 KW P.A. No. 1H H. Rec. Serial No. 3H
V. Trans. Ant. No. _____
H. Trans. Ant. No. 1

1. RADIO NOISE AND SPURIOUS TONE LEVELS

	EXPECTED	ACTUAL Freq.	ACTUAL Noise Level
Baseband Noise	-60 dbm	~~120~~ KC	~~-60~~ dbm
		KC	dbm
		KC	dbm
NONE		KC	dbm
		KC	dbm

NOTE: Record all noise signals greater than -60 dbm, except signal at 60 KC.

2. RADIO BASEBAND FREQUENCY RESPONSE

* MEASUREMENTS MADE WITH A GOOD MTR ACROSS A 75 Ω LOAD.

* Frequency	EXPECTED	ACTUAL
12 KC		-17.1 dbm
20 KC	-2 +1 dbm	-16.9 dbm
30 KC	with respect	-16.3 dbm
40 KC	to 30 KC level	-16.5 dbm
50 KC		-16.1 dbm
60 KC		-16.1 dbm
70 KC		-17.0 dbm
80 KC	±0.25 dbm	-17.0 dbm
90 KC	with respect	-17.0 dbm
100 KC	to 90 KC level	-17.1 dbm
110 KC		-17.1 dbm
120 KC		-17.2 dbm

DATE 24 November 1963
TESTER [signature] for R. Gibson
SUPERVISOR [signature]
QUALITY ASSURANCE [signature]
Sheet 1 of 1 GEORGE Gerald A. Wahm

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FEDERAL ELECTRIC CORPORATION BRII/15
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-85 LINK TEST

STATION GPA

Transmission Path: From TID Station to GPA Station

V. Exc. Serial No. 2V V. Rec. Serial No. 1V
H. Exc. Serial No. _____ V. Rec. Serial No. 4V
V. 1 KW P.A. No. 2V H. Rec. Serial No. _____
H. _____ KW P.A. No. _____ H. Rec. Serial No. _____
V. Trans. Ant. No. 2
H. Trans. Ant. No. _____

1. RADIO NOISE AND SPURIOUS TONE LEVELS

	EXPECTED	ACTUAL Freq.	ACTUAL Noise Level
Baseband Noise	-60 dbm	KC	dbm
		KC	dbm
		KC	dbm
NONE		KC	dbm
		KC	dbm

NOTE: Record all noise signals greater than -60 dbm, except signal at 60 KC.

2. RADIO BASEBAND FREQUENCY RESPONSE

* MEASUREMENTS MADE WITH A 600Ω METER ACROSS A 75Ω LOAD.

* Frequency	EXPECTED	ACTUAL
12 KC		-19.3 dbm
20 KC	-2 +1 dbm	-18.7 dbm
30 KC	with respect	-18.4 dbm
40 KC	to 30 KC level	-18.1 dbm
50 KC		-18.1 dbm
60 KC		-18.0 dbm
70 KC		-18.3 dbm
80 KC	±0.25 dbm	-18.3 dbm
90 KC	with respect	-18.5 dbm
100 KC	to 90 KC level	-18.5 dbm
110 KC		-18.5 dbm
120 KC		-18.5 dbm

DATE 24 November 1963
TESTER [illegible]
SUPERVISOR [illegible]
QUALITY ASSURANCE [illegible]

Sheet 1 of 1 GECIA [illegible]

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FEDERAL ELECTRIC CORPORATION BRII/15
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-85 LINK TEST

STATION TID

Transmission Path: From TID Station to GPA Station

V. Exc. Serial No. 2 Ser. 037 V. Rec. Serial No. 4 Ser. 074
H. Exc. Serial No. 1 Ser. 038 V. Rec. Serial No. 3 Ser. 076
V. 1 KW P.A. No. 2 Ser. 023 H. Rec. Serial No. 2 Ser. 075
H. 1 KW P.A. No. 1 Ser. 013 H. Rec. Serial No. 1 Ser. 073
V. Trans. Ant. No. 2
H. Trans. Ant. No. 1

1. RADIO NOISE AND SPURIOUS TONE LEVELS

	EXPECTED	ACTUAL Freq.	ACTUAL Noise Level
Baseband Noise	-60 dbm	KC	dbm
NO READINGS NOTED ABOVE -70 dbm on VERTICAL RECEIVERS.		KC	dbm
		KC	dbm
		KC	dbm
		KC	dbm

NOTE: Record all noise signals greater than -60 dbm, except signal at 60 KC.

2. RADIO BASEBAND FREQUENCY RESPONSE

Frequency	EXPECTED	ACTUAL VERTICAL RECEIVERS
12 KC		-11 dbm
20 KC	-2 +1 dbm	-10.5 dbm
30 KC	with respect	-10.4 dbm
40 KC	to 30 KC level	-10.5 dbm
50 KC		-10.6 dbm
60 KC		-10.7 dbm
70 KC		-9.9 dbm
80 KC	±0.25 dbm	-9.9 dbm
90 KC	with respect	-10.0 dbm
100 KC	to 90 KC level	-10.0 dbm
110 KC		-10.0 dbm
120 KC		-10.0 dbm

DATE 7-22-1962
TESTER [illegible]
SUPERVISOR [illegible]
QUALITY ASSURANCE [illegible]
Sheet 1 of 1 GEMIA Ralph S. Krueger

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FEDERAL ELECTRIC CORPORATION BRII/15
BIG RALLY II PROJECT
DATA SHEET
AN/MRC-85 LINK TEST

STATION TID

Transmission Path: From TID Station to GPM Station

V. Exc. Serial No. 2 Ser. 037 V. Rec. Serial No. 4 Ser. 074
H. Exc. Serial No. 1 Ser. 038 V. Rec. Serial No. 3 Ser. 076
V. 1 KW P.A. No. 2 Ser. 023 H. Rec. Serial No. 2 Ser. 075
H. 1 KW P.A. No. 1 Ser. 013 H. Rec. Serial No. 1 Ser. 073
V. Trans. Ant. No. 2
H. Trans. Ant. No. 1

1. RADIO NOISE AND SPURIOUS TONE LEVELS

	EXPECTED	ACTUAL Freq.	Noise Level
Baseband Noise	-60 dbm	KC	dbm
NO READINGS ABOVE -70 dbm NOTED ON		KC	dbm
HORIZONTAL RECEIVERS.		KC	dbm
		KC	dbm
		KC	dbm

NOTE: Record all noise signals greater than -60 dbm, except signal at 60 KC.

2. RADIO BASEBAND FREQUENCY RESPONSE

Frequency	EXPECTED	ACTUAL HORIZONTAL RCVR'S
12 KC		-11.1 dbm
20 KC	-2 +1 dbm	-10.3 dbm
30 KC	with respect	-10.1 dbm
40 KC	to 30 KC level	-10.2 dbm
50 KC		-10.3 dbm
60 KC		-10.5 dbm
70 KC		-10.4 dbm
80 KC	±0.25 dbm	-10.3 dbm
90 KC	with respect	-10.4 dbm
100 KC	to 90 KC level	-10.3 dbm
110 KC		-10.4 dbm
120 KC		-10.4 dbm

DATE 24 NOVEMBER 1963
TESTER Martin Lepiarz
SUPERVISOR [illegible]
QUALITY ASSURANCE [illegible]

Sheet 1 of 1 GEDIA Ralph L. Kruger

7-22

FEDERAL ELECTRIC CORPORATION BR11/71

BIG RALLY II PROJECT

DATA SHEET

AN/FRC-39 STATION TEST

STATION T.I.D.

Transmission Path: From Station T.I.D. to STATION T. K.G.

Exciter Serial No. # 002 Frequency 895.92 MC

AN/FRC-39 EXCITER, RADIO

	EXPECTED	ACTUAL	
1. POWER OUTPUT			
Power Output	Minimum 10 watts	15	watts
2. CARRIER FREQUENCY			
Frequency	.001% of assigned	895.920820	MC
3. EXCITER RESPONSE AND DEVIATION			
Lower 1 db point		890.54	MC
Upper 1 db point		901.6	MC
Bandwidth	Minimum 6.0 MC	11.06	MC
4. HF Deviation			
Level at J4	14dbm + 0.5 dbm	- 13.9	dbm
5. ADJUSTMENT OF FOUR RECEIVERS		R.S.K.	Initials
6. LF DEVIATION			
Signal Level at J14	10dbm + 0.5dbm	- 10	dbm
7. ORDER WIRE DEVIATION & LEVEL			
Output at J26-J27	10dbm + 0.5dbm	- 10	dbm
8. PILOT TONE LEVEL AND DEVIATION			
Radio Pilot Level J51	20 to 35 volts	22	volts
Deviation at J14 on S1893	-20 dbm + 0.5 dbm	-20	dbm
9. DUAL MODULATOR OPERATION			
Exciter No. 1 Driving		R.S.K.	Initials
Exciter No. 2 Driving		R.S.K.	Initials

DATE 5-DEC. 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEETA [illegible]

FEDERAL ELECTRIC CORPORATION BR11/71

BIG RALLY II PROJECT

DATA SHEET

AN/FRC-39 STATION TEST

STATION T.I.D.

Transmission Path: From Station T.I.D. to STATION T.K.G.

Exciter Serial No. # 001 Frequency 895.92 MC

AN/FRC-39 EXCITER, RADIO

	EXPECTED	ACTUAL	
1. POWER OUTPUT			
Power Output	Minimum 10 watts	12	watts
2. CARRIER FREQUENCY			
Frequency	.001% of assigned	895.915215	MC
3. EXCITER RESPONSE AND DEVIATION			
Lower 1 db point		891.22	MC
Upper 1 db point		901.72	MC
Bandwidth	Minimum 6.0 MC	10.5	MC
4. HF Deviation			
Level at J4	14dbm + 0.5 dbm	- 14	dbm
5. ADJUSTMENT OF FOUR RECEIVERS		R.S.K.	Initials
6. LF DEVIATION			
Signal Level at J14	10dbm + 0.5dbm	- 10	dbm
7. ORDER WIRE DEVIATION & LEVEL			
Output at J26-J27	10dbm + 0.5dbm	- 10	dbm
8. PILOT TONE LEVEL AND DEVIATION			
Radio Pilot Level J51	20 to 35 volts	21	volts
Deviation at J14 on S1893	-20 dbm + 0.5 dbm	- 20	dbm
9. DUAL MODULATOR OPERATION			
Exciter No. 1 Driving		R.S.K.	Initials
Exciter No. 2 Driving		R.S.K.	Initials

DATE 3 Dec. 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEETA Ralph J. Kruger

FEDERAL ELECTRIC CORPORATION BR11/71

BIG RALLY II PROJECT

DATA SHEET

AN/FRC-39 STATION TEST

STATION TKG

Transmission Path: From Station TKG to STATION TID

Exciter Serial No. 003 Frequency 774.95990 MC

AN/FRC-39 EXCITER, RADIO

	EXPECTED	ACTUAL	
1. POWER OUTPUT			
Power Output	Minimum 10 watts	11.0	watts
2. CARRIER FREQUENCY			
Frequency	.001% of assigned	774.96170	MC
3. EXCITER RESPONSE AND DEVIATION			
Lower 1 db point		-3.841	MC
Upper 1 db point		+4.043	MC
Bandwidth	Minimum 6.0 MC	7.884	MC
4. HF Deviation			
Level at J4	14dbm + 0.5 dbm	14.0	dbm
5. ADJUSTMENT OF FOUR RECEIVERS	Ser.NO.006 Ser.NO.005	[illegible]	Initials
6. LF DEVIATION			
Signal Level at J14	10dbm + 0.5dbm	10.0	dbm
7. ORDER WIRE DEVIATION & LEVEL			
Output at J26-J27	10dbm + 0.5dbm	10.0	dbm
8. PILOT TONE LEVEL AND DEVIATION			
Radio Pilot Level J51	20 to 35 volts	25.0	volts
Deviation at J14 on S1893	-20 dbm + 0.5 dbm	-20.0	dbm
9. DUAL MODULATOR OPERATION			
Exciter No. 1 Driving		*	Initials
Exciter No. 2 Driving		*	Initials

* Test not performed-OUT OF SPEC.

DATE 11 December 1963

TESTER [illegible]

SUPERVISOR William R. Burbridge

QUALITY ASSURANCE Joseph Malkowitz

GEEIA Gerald A. Hartman

FEDERAL ELECTRIC CORPORATION BRII/71

BIG RALLY II PROJECT

DATA SHEET

AN/FRC-39 STATION TEST

STATION TKG

Transmission Path: From Station TKG to STATION TID

Exciter Serial No. 004 Frequency 774.95990 MC

AN/FRC-39 EXCITER, RADIO

	EXPECTED	ACTUAL	
1. POWER OUTPUT			
Power Output	Minimum 10 watts	10.5	watts
2. CARRIER FREQUENCY			
Frequency	.001% of assigned	774.958976	MC
3. EXCITER RESPONSE AND DEVIATION			
Lower 1 db point		66.558	MC
Upper 1 db point		73.442	MC
Bandwidth	Minimum 6.0 MC	6.884	MC
4. HF Deviation			
Level at J4	14dbm + 0.5 dbm	14.0	dbm
5. ADJUSTMENT OF FOUR RECEIVERS	Ser.NO.007 Ser.NO.008	[illegible]	Initials
6. LF DEVIATION			
Signal Level at J14	10dbm + 0.5dbm	10.0	dbm
7. ORDER WIRE DEVIATION & LEVEL			
Output at J26-J27	10dbm + 0.5dbm	10.0	dbm
8. PILOT TONE LEVEL AND DEVIATION			
Radio Pilot Level J51	20 to 35 volts	23.5	volts
Deviation at J14 on S1893	-20 dbm + 0.5 dbm	-20.0	dbm
9. DUAL MODULATOR OPERATION			
Exciter No. 1 Driving		*	Initials
Exciter No. 2 Driving		*	Initials

* Test not performed-OUT OF SPEC.

DATE 4 December 1963

TESTER [illegible]

SUPERVISOR William K. Lutkedge

QUALITY ASSURANCE Joseph Malkowitz

GEEIA Gerald A Watson

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FEDERAL ELECTRIC CORPORATION BR 11/72

BIG RALLY II PROJECT

DATA SHEET

AN/FRC-39 STATION TEST

STATION T.I.D.

Transmission Path: From Station T.I.D. to STATION T. K.G.

Amplifier Serial No. # 001 Frequency 8 95.92 MC

Exciter Serial No. # 001

AN/FRC-39 POWER AMPLIFIER, RADIO

	EXPECTED	ACTUAL	
1. INPUT POWER	Min. 10 watts	55.5	watts
2. OUTPUT FORWARD POWER	Min. 10 KW	10 KW	watts
3. OUTPUT BACK POWER	Max. 280 W	15	watts
4. VSWR	Max. 1.40	1.08	
5. FAULT RECYCLING		R.S.K.	Initials
6. KLYSTRON COOLANT FLOW	Min. 17 GPM	28.5	GPM

DATE 3 Dec. 1963

TESTER [signature]

SUPERVISOR [signature]

QUALITY ASSURANCE [signature]

GEEIA Ralph S. Krueger

FEDERAL ELECTRIC CORPORATION BR 11/72

BIG RALLY II PROJECT

DATA SHEET

AN/FRC-39 STATION TEST

STATION T.I.D.

Transmission Path: From Station ##### T.I.D. to STATION T.K.G.

Amplifier Serial No. # 002 Frequency 895.92 MC

Exciter Serial No. # 002

AN/FRC-39 POWER AMPLIFIER, RADIO

	EXPECTED	ACTUAL	
1. INPUT POWER	Min. 10 watts	9.5	watts
2. OUTPUT FORWARD POWER	Min. 10 KW	10	watts
3. OUTPUT BACK POWER	Max. 280 W	60	watts
4. VSWR	Max. 1.40	1.15	
5. FAULT RECYCLING		R.S.K.	Initials
6. KLYSTRON COOLANT FLOW	Min. 17 GPM	30	GPM

DATE # 3 Dec. 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

FEDERAL ELECTRIC CORPORATION BR 11/72

BIG RALLY II PROJECT

DATA SHEET

AN/FRC-39 STATION TEST

STATION TKG

Transmission Path: From Station TKG to STATION TID

Amplifier Serial No. 003 Frequency 774.95990 MC

Exciter Serial No. 004

AN/FRC-39 POWER AMPLIFIER, RADIO

	EXPECTED	ACTUAL	
1. INPUT POWER	Min. 10 watts	* 6.0	watts
2. OUTPUT FORWARD POWER	Min. 10 KW	10.0 K	watts
3. OUTPUT BACK POWER	Max. 280 W	190	watts
4. VSWR	Max. 1.40	1.32	
5. FAULT RECYCLING		W.D.T	Initials
6. KLYSTRON COOLANT FLOW	Min. 17 GPM	31	GPM

* OUT OF SPEC.

DATE 20 December 1963

TESTER [signature]

SUPERVISOR [signature]

QUALITY ASSURANCE [signature]

GEEIA [signature]

FEDERAL ELECTRIC CORPORATION BR 11/72

BIG RALLY II PROJECT

DATA SHEET

AN/FRC-39 STATION TEST

STATION TKG

Transmission Path: From Station TKG to STATION TID

Amplifier Serial No. 004 Frequency 774.95990 MC

Exciter Serial No. 003

AN/FRC-39 POWER AMPLIFIER, RADIO

	EXPECTED	ACTUAL
1. INPUT POWER	Min. 10 watts	*5.5 watts
2. OUTPUT FORWARD POWER	Min. 10 KW	10.0 K watts
3. OUTPUT BACK POWER	Max. 280 W	80 watts
4. VSWR	Max. 1.40	1.20
5. FAULT RECYCLING		[illegible] Initials
6. KLYSTRON COOLANT FLOW	Min. 17 GPM	28 GPM

* OUT-OF-SPEC.

DATE 12 December 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEETA [illegible]

FEDERAL ELECTRIC CORPOR ATION BR II/73 Rev.

BIG RALLY II PROJECT

DATA SHEET
AN/FRC-39 STATION TESTS

STATION T.I.D.

TRANSMISSION PATH: Station T.K.G. to STATION T.I.D.

1. Receiver Gain
Parametric Amplifier and Converter

	#001 Rec 1 V	#002 Rec 2 H	#003 Rec 3 V	#004 Rec 4 H
Required: Minimum 40	42	41	40.5	41.5

2. Receiver Sensitivity (20db Quieting Level)

	V Rec#001	H Rec#002	V Rec#003	H Rec#004
Req uired: Maximum 4.5uv	2.5	2.5	2.7	2.4

3. DC Control Voltages

	Rec#001	Rec#002	Rec#003	Rec#004
DC Control Voltag Req . -45 Volts	- 45	- 45	- 45	- 45

4. Diversity Combiner

	V Rec#001	H Rec#002	V Rec#003	H Rec #004
Vertical Receiver Outputs (no inputs)	1V	2 H	____	____
Required: Maximum Difference 2db		-15		-14.5
Vertical Receiver Outputs (30db quieting Ref:		~~xxxx~~ - 45		- 45.5

Combined (Vert.)

Req uired: 1.5 to 4.5db less than individual receiver	- 47	- 47.5

	Rec 3 V	Rec 4 H
Horizontal Receiver Outputs (no inputs)		
Req uired: Maximum Difference 2db	- 14.5	- 15
Horizontal Receiver Outputs (30db quieting-Ref)	± 47	± 47
Required: 1.5 to 4.5db less than individual receiver	- 49	- 49

5. Receiver Pilot Tone Operation Test R.S.K. initial

6. Antenna System VSWR

Required: Maximum 1.40	VERT.	HOIZ.
Antenna 1	1.19	1.22 &
Antenna 2	1.28	1.22

Date 3 Dec. 1963

Tester [illegible]

Superviser [illegible]

Quality Assurance [illegible]

GEEIA [illegible]

FEDERAL ELECTRIC CORPORATION BR11/73REV.

BIG RALLY 11 PROJECT

DATA SHEET

AN/FRC-39 STATION TESTS

STATION TKG

TRANSMISSION PATH: STATION TKG TO STATION TID

1. Receiver Gain
   Parametric Amplifier and Converter

	REC 1V	REC 2H	REC 3V	REC 4H
Required: Minimum 40db	40.4db	40.2db	40.5db	40.3

2. Receiver Sensitivity(20db Quieting Level)

	REC 1V	REC 2H	REC 3V	REC 4H
Required: Maximum 4.5uv	2.7	2.8	2.9	2.6

3. DC Control Voltage
   DC Control Volts

	REC 1V	REC 2H	REC 3V	REC 4H
Required: -45 Volts	-45.0	-45.0	-45.0	-45.0

4. Diversity Combiner

	REC 1V	REC 2H
Vertical Receiver Outputs (no input)		
Required; Maximum Difference 2db	+8.0db	+7.2db
Vertical Receiver Outputs (30dv quieting-Ref)	-20.0	-22.8
Combined (Vertical)		
Required: 1.5 to 4.5db less than individual receivers	2.5	3.7

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	REC 3V	REC 4H
Horizontal Receiver Outputs (no input)		
Required: Maximum Difference 2db	+8.0	+9.5
Horizontal Receiver Outputs (30 db Quieting-ref)	-22.0	-21.5
Combined (Horiz.)		
Required: 1.5 to 4.5db less than individual receivers	4db	3db

5. Receiver Pilot Tone Operation Test _____ initial

6. Antenna System VSWR

	VERT.	HORIZ.
Required: Maxmum 1.40		
Antenna 1	*	1.35
Antenna 2	1.27	1.35

* OUT OF SPEC.

DATE 5 December 1983

TESTER _____

SUPERVISOR _____

QUALITY ASSURANCE _____

GEEIA _____

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FEDERAL ELECTRIC CORPORATION BRII/74

BIG RALLY II PROJECT

DATA SHEET

AN/FRC-39 OVERALL TEST

STATION T.I.D.

Transmission Path: From T.K.G. Station to T.I.D. Station

Exciter Serial No. # 001

Serial No. Receiver A # 001 V Receiver B # 002 H

Power Amplifier Serial No. # 001

1. SYSTEM INTERMODULATION

Frequency	EXPECTED	ACTUAL 1 V Rec. A	ACTUAL 2 H Rec. B	
15 KC	Maximum -55 dbm	- 55	-50	dbm
55 KC	Maximum -55 dbm	- 53	- 53	dbm
80 KC	Maximum -55 dbm	- 51	- 51	dbm
475 KC	Maximum -55 dbm	- 54	- 52	dbm

2. RADIO BASEBAND FREQUENCY RESPONSE

Frequency	EXPECTED	ACTUAL Rec. A	ACTUAL Rec. B	
12 KC		- 11.8	- 11.8	dbm
20 KC	-2 + 1 dbm	- 11	- 11.2	dbm
30 KC	with	- 10.7	- 10.8	dbm
40 KC	respect	- 10.6	- 10.8	dbm
50 KC	to 30 KC	- 10.6	- 10.7	dbm
60 KC	level	- 10.6	- 10.6	dbm
64 KC		- 10	- 10	dbm
150 KC	± 0.25 dbm	- 10.1	- 10	dbm
308 KC	per 250 KC	- 10.2	- 10.2	dbm
450 KC	of frequency	- 10.25	- 10.25	dbm
552 KC	Change with respect to 64 KC	- 10.3	-10.25	dbm

DATE 3 Dec. 1963

TESTER [signature]

SUPERVISOR [signature]

QUALITY ASSURANCE [signature]

GEEIA [signature] 8-13

FEDERAL ELECTRIC CORPORATION BRII/74

BIG RALLY II PROJECT

DATA SHEET

AN/FRC-39 OVERALL TEST

STATION T.I.D.

Transmission Path: From T.K.G. Station to T.I.D. Station

Exciter Serial No. # 002

Serial No. Receiver A # 003 #V 3 Receiver B# # 004 # 4 H

Power Amplifier Serial No. # 002

1. SYSTEM INTERMODULATION

Frequency	EXPECTED	ACTUAL 3V Rec. A	ACTUAL 4 H Rec.B	
15 KC	Maximum -55 dbm	- 50	- 51	dbm
55 KC	Maximum -55 dbm	- 57	- 54	dbm
80 KC	Maximum -55 dbm	- 51	- 50	dbm
475 KC	Maximum -55 dbm	- 54	- 50	dbm

2. RADIO BASEBAND FREQUENCY RESPONSE

Frequency	EXPECTED	ACTUAL 3 V Rec. A	ACTUAL 4 H Rec. B	
12 KC		- 11	- 11	dbm
20 KC	-2 + 1 dbm	- 10.25	- 11.3	dbm
30 KC	with	- 10	- 10	dbm
40 KC	respect	- 9.8	- 10	dbm
50 KC	to 30 KC	- 9.5	- 10	dbm
60 KC	level.	- 9.5	- 10	dbm
64 KC		- 10	- 10	dbm
150 KC	± 0.25 dbm	- 9.8 ~~- 10.8~~	- 10	dbm
308 KC	per 250 KC	- 9.8	- 10.2	dbm
450 KC	of frequency	- 9.9	- 10.3	dbm
552 KC	Change with respect to 64 KC	- 9.8	- 10.3	dbm

DATE 5 Dec. 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph [illegible]

2-14

FEDERAL ELECTRIC CORPORATION BR11/74

BIG RALLY II PROJECT

DATA SHEET

AN/FRC-39 OVERALL TEST

STATION TKG

Transmission Path: From TKG Station to TID Station

Exciter Serial No. 003

Serial No. Receiver A 005 (1H) Receiver B# 006 (2H)

Power Amplifier Serial No. 003

1. SYSTEM INTERMODULATION

Frequency	Rec. A EXPECTED		ACTUAL Rec. A	ACTUAL Rec. B	
15 KC	-41.0 Maximum	-55 dbm	*	*	dbm
55 KC	-35.0 Maximum	-55 dbm	*	*	dbm
80 KC	-31.0 Maximum	-55 dbm	*	*	dbm
475 KC	-31.0 Maximum	-55 dbm	*	*	dbm

GAH 20 Dec 63

2. RADIO BASEBAND FREQUENCY RESPONSE

Frequency	EXPECTED	ACTUAL Rec. A	ACTUAL Rec. B	
12 KC		-11.8	-11.5	dbm
20 KC	-2 + 1 dbm	-10.8	-10.6	dbm
30 KC	with	-10.2	-10.0	dbm
40 KC	respect	-09.7	-09.7	dbm
50 KC	to 30 KC	-09.3	-09.2	dbm
60 KC	level	*-09.0	-08.9	dbm
64 KC		-10.25	-10.2	dbm
150 KC	± 0.25 dbm	-10.25	-10.2	dbm
308 KC	per 250 KC	-10.40	-10.3	dbm
450 KC	of frequency	-10.50	-10.4	dbm
552 KC	Change with respect to 64 KC	-10.50	-10.4	dbm

* Test not performed-OUT OF SPEC.

DATE 5 December 1963

TESTER

SUPERVISOR

QUALITY ASSURANCE

Q-1C GEEI

FEDERAL ELECTRIC CORPORATION BRII/74

BIG RALLY II PROJECT

DATA SHEET

AN/FRC-39 OVERALL TEST

STATION TKG

Transmission Path: From TKG Station to TID Station

Exciter Serial No. 004

Serial No. Receiver A 007 (3V) Receiver B# 008 (4H)

Power Amplifier Serial No. ------- 003

1. SYSTEM INTERMODULATION

Frequency	Rec. A	Rec. B	EXPECTED	ACTUAL Rec. A	ACTUAL Rec. B	
15 KC	-47.0	-52.0	Maximum -55 dbm	*	*	dbm
55 KC	-42.0	-50.0	Maximum -55 dbm	*	*	dbm
80 KC	-41.0	-45.0	Maximum -55 dbm	*	*	dbm
475 KC	-41.0	-40.0	Maximum -55 dbm	*	*	dbm

GAIN 20 DB 63

2. RADIO BASEBAND FREQUENCY RESPONSE

Frequency	EXPECTED	ACTUAL Rec. A	ACTUAL Rec. B	
12 KC		-11.1	-11.3	dbm
20 KC	-2 + 1 dbm	-10.2	-10.6	dbm
30 KC	with	-10.0	-10.2	dbm
40 KC	respect	-09.9	-10.1	dbm
50 KC	to 30 KC	-09.9	-10.1	dbm
60 KC	level	-09.9	-10.1	dbm
64 KC		-10.1	-10.3	dbm
150 KC	± 0.25 dbm	-10.0	-10.1	dbm
308 KC	per 250 KC	-10.1	-10.2	dbm
450 KC	of frequency	-10.1	-10.0	dbm
552 KC	Change with respect to 64 KC	-10.2	10.0	dbm

* Test not performed-OUT OF SPEC.

DATE 5 December 1963

TESTER [signature]

SUPERVISOR [signature]

QUALITY ASSURANCE [signature]

GEEI [signature]

APPENDIX

The below data is in reference to the System Intermodulation check performed at site TKG using Receiver "A" Ser. No. 007 and Power Amplifier Ser. No. 003.

Intermod. into the dummy load at 10.0KW power out, with reflected power at 55.0 watts.

FREQUENCY	REC. "A"
15 KC	-51 dbm
55 KC	-51 dbm
80 KC	-54 dbm
475 KC	-54 dbm

DATE 19 December 1963

TESTER

SUPERVISOR William R. Burdridge

QUALITY ASSURANCE Joseph Malkowicz

Intermod. into antenna C-2 at 10.0KW power out, with reflected power at 190 watts.

FREQUENCY	REC. "A"
15 KC	-41 dbm
55 KC	-35 dbm
80 KC	-31 dbm
475 KC	-31 dbm

DATE 20 December 1963

TESTER

SUPERVISOR William R. Burdridge

QUALITY ASSURANCE Joseph Malkowicz

FEDERAL ELECTRIC CORPORATION BR 11/75
BIG RALLY II PROJECT
DATA SHEET
AN/FRC-39 LINK TEST

STATION T.I.D.

Transmission Path: From T.K.G. Station to T.I.D. Station

V. Exc. Serial No.	# 001	V. Rec. Serial No.	# 001
H. Exc. Serial No.	# 002	V. Rec. Serial No.	# 003
V. P. A. No.	# 001	H. Rec. Serial No.	# 002
H. P. A. No.	# 002	H. Rec. Serial No.	# 004
V. Trans. Ant. No.	# 1		
H. Trans. Ant. No.	# 2		

1. RADIO NOISE AND SPURIOUS TONE LEVELS

	EXPECTED	ACTUAL Freq.	Noise Level
Baseband Noise	-60 dbm	KC	dbm
		KC	dbm
NO NOISE GREATER THAN - 64 dbm		KC	dbm
		KC	dbm
		KC	dbm
		KC	dbm

NOTE: Record all noise signals greater than -60 dbm, except 60 KC will not be recorded.

2. RADIO BASEBAND FREQUENCY RESPONSE

FREQUENCY	EXPECTED	ACTUAL	
12 KC		= 10.8	dbm
20 KC	-2 + 1 dbm	- 9.7	dbm
30 KC	with	- 9.4	dbm
40 KC	respect	- 9.7	dbm
50 KC	to 30 KC	- 9.7	dbm
60 KC	level	- 10	dbm
64 KC		- 9.7	dbm
150 KC	± 0.25 dbm	- 10	dbm
308 KC	per 250 KC	- 10	dbm
450 KC	of frequency	- 9.7	dbm
552 KC	change with respect to 64 KC	- 10	dbm

DATE 7 Dec. 1963
TESTER [illegible]
SUPERVISOR [illegible]
QUALITY ASSURANCE [illegible]
GEEIA Ralph A. Bugger

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FEDERAL ELECTRIC CORPORATION BR 11/75
BIG RALLY II PROJECT
DATA SHEET
AN/FRC-39 LINK TEST

STATION TKG

Transmission Poth: From TKG Station to TID Station

V. Exc. Serial No.	004	V. Rec. Serial No.	005
H. Exc. Serial No.	003	V. Rec. Seriol No.	007
V. P. A. No.	003	H. Rec. Serial No.	006
H. P. A. No.	N/A	H. Rec. Seriol No.	008
V. Trans. Ant. No.	C-2		
H. Trans. Ant. No.	C-1		

1. RADIO NOISE AND SPURIOUS TONE LEVELS

	EXPECTED	ACTUAL Freq.	Noise Level
Baseband Noise	-60 dbm	N/A KC	N/A dbm
		N/A KC	N/A dbm
		N/A KC	N/A dbm
		N/A KC	N/A dbm
		N/A KC	N/A dbm
		N/A KC	N/A dbm

Baseband scanned,no levels found greater than -60dbm. (PA#004)

NOTE: Record all noise signals greoter thon -60 dbm, except 60 KC will not be recorded.

2. RADIO BASEBAND FREQUENCY RESPONSE

Receivers	FREQUENCY	EXPECTED	ACTUAL	
	12 KC		-11.0	dbm
	20 KC	-2 + 1 dbm	-10.3	dbm
	30 KC	with	-10.2	dbm
005	40 KC	respect	-09.5	dbm
007	50 KC	to 30 KC	-09.5	dbm
	60 KC	level	-09.5	dbm

---

64 KC		-10.0		dbm
150 KC	± 0.25 dbm	-09.8		dbm
308 KC	per 250 KC	-09.8		dbm
450 KC	of frequency	-09.7	**	dbm
552 KC	change with respect to 64 KC	-09.6	**	dbm

** Fluctuations in readings over 1db peak/peak

DATE 12 December 1963
TESTER [signature]
SUPERVISOR [signature]
QUALITY ASSURANCE [signature]
GEEIA [signature]

FEDERAL ELECTRIC CORPORATION BRII/101

BIG RALLY II PROJECT

DATA SHEET

150 KW POWER GENERATING SYSTEM

STATION T.I.D. North Van

1. FREQUENCY (See Para. 7)

Generator 1

Name Plate Frequency 60 cps

A. Steady State Load
Minimum Frequency Reading 60 cps
Maximum Frequency Reading 59 cps

B. Sudden Change - Full Load to No Load
Minimum Frequency 59 cps
Maximum Frequency 60 cps
Recovery Time 2 Seconds

~~C. Sudden Change - No Load to Full Load~~
~~Minimum Frequency~~ cps
~~Maximum Frequency~~ cps
~~Recovery Time~~ Seconds

Generator II

Name Plate Frequency 60 cps

A. Steady State Load
Minimum Frequency Reading 60 cps
Maximum Frequency Reading 61 cps

B. Sudden Change - Full Load to No Load
Minimum Frequency 60 cps
Maximum Frequency 61 cps
Recovery Time 2 Seconds

~~C. Sudden Change - No Load to Full Load~~
~~Minimum Frequency~~ cps
~~Maximum Frequency~~ cps
~~Recovery Time~~ Seconds

DATE 26 Nov. 1963

TESTER Jack C. Mahoit

SUPERVISOR Russell E. Carter

QUALITY ASSURANCE Robert A. Grant

GEEIA Walter L. Craig

FEDERAL ELECTRIC CORPORATION BRII/102

BIG RALLY II PROJECT

DATA SHEET

150 KW POWER GENERATING SYSTEM

STATION T.I.D. North Van

2. LOAD BALANCE (See Para. 8)

	Test I	Test II (Corrected Unbalance)
Generator I		
Phase I		
Amperes	359	
Volts	120	
Volts x Amperes	43,080	
Phase II		
Amperes	370	
Volts	120	
Volts x Amperes	44,400	
Phase III		
Amperes	340	
Volts	120	
Volts x Amperes	40,800	
Generator II		
Phase I		
Amperes	315	
Volts	120	
Volts x Amperes	37,800	
Phase II		
Amperes	322	
Volts	120	
Volts x Amperes	38,640	
Phase III		
Amperes	305	
Volts	120	
Volts x Amperes	36,600	

DATE 26th Nov. 1963

TESTER [illegible]

SUPERVISOR Russell E. Carter

QUALITY ASSURANCE [illegible]

Geeia. Dalton Craig

9-2

FEDERAL ELECTRIC CORPORATION BRII/103

BIG RALLY II PROJECT

DATA SHEET

150 KW POWER GENERATION SYSTEM

STATION TID NORTH VAN

3. PHASING (See Para. 9)

Generator I

Phase I	~~120~~ 120 volts
Phase II	~~120.5~~ volts
Phase III	_____ volts

Generator II

Phase I	120 volts
Phase II	~~120~~ 120 volts
Phase III	~~120.5~~ volts

4. NEUTRAL GROUNDING (See Para. 10)

Generator I

Ground Rod to Neutral Terminal .5 OHMS

Generator II

Ground Rod to Neutral Terminal .5 OHMS

DATE 26 Nov 1963

TESTER Sandy C Mobert

SUPERVISOR Russell E Carter

QUALITY ASSURANCE [illegible]

GEEIA Walter L Craig

FEDERAL ELECTRIC CORPORATION BRII/104

BIG RALLY II PROJECT

DATA SHEET

150 KW DIESEL GENERATOR SYSTEM

STATION TID NORTH VAN

5. TERMINAL VOLTAGE (See Para. II)

Percent Voltage Drop $\left(\frac{\text{Generator Panel Board Voltage} - \text{Terminal Voltage}}{\text{Generator Panel Board Voltage}}\right) \times 100\%$

3 Phase 208 Volts

		Generator Panel Board Volt.	Term. Volts	% Volt Drop
Feeder I	Phase 1 & 2	232	231	1
	Phase 2 & 3	233	232	1
	Phase 3 & 1	231	231	
	Phase 1 to Neutral	234	134	
	Phase 2 to Neutral	132	131	1
	Phase 3 to Neutral	128	128	
Feeder II	Phase 1 & 2	231	231	
	Phase 2 & 3	233	232	1
	Phase 3 & 1	235	235	
	Phase 1 to Neutral	133	133	
	Phase 2 to Neutral	131	130	1
	Phase 3 to Neutral	134	133	1
Feeder III	Phase 1 & 2	231	231	
	Phase 2 & 3	232	231	
	Phase 3 & 1	231	231	
	Phase 1 to Neutral	133	132	
	Phase 2 to Neutral	132	132	
	Phase 3 to Neutral	134	134	

DATE 26 Nov 1963

TESTER Roston C Molart

SUPERVISOR Russell E Carter

QUALITY ASSURANCE Patrick M. Hunt

GEEIA Walter L Craig

FEDERAL ELECTRIC CORPORATION BRII/105

BIG RALLY II PROJECT

DATA SHEET

150 KW POWER GENERATING SYSTEM

STATION TID NORTH VAN

6. GENERATOR TRANSFER OPERATION (See Para. 12)

Generator I

	Normal Operating Conditions			Conditions New Duty Unit After Transfer		
Voltage	120			120	120	120
Amperage	400	410	357	420	430	370
Wattage	120				135 KW	
Frequency	60				60	

Time in Seconds to Effect Transfer 2 seconds.

Generator II

	Normal Operating Conditions			Conditions New Duty Unit After Transfer		
Voltage	121	122	121	120	122	122
Amperage	280	250	220	320	295	250
Wattage	95			95		
Frequency	60			60		

Time in Seconds to Effect Transfer 2 seconds.

DATE 26 Nov 1963

TESTER [illegible]

SUPERVISOR Russell E Cox Sr.

QUALITY ASSURANCE Patrick L Hunt

GEEIA [illegible]

FEDERAL ELECTRIC CORPORATION BRII/106

BIG RALLY II PROJECT

DATA SHEET

150 KW DIESEL GENERATING SYSTEM

STATION TID NORTH VAN

7. PARALLELING TEST (See Para. 13)

Generator I (After Paralleling)

Amps	420	Amps
Watts	120 KW	Watts
Volts	120	Volts
Frequency	60	CPS
~~Tachometer Reading~~		~~RPM~~

Generator II (After Paralleling)

Amps	430	Amps
Watts	135 KW	Watts
Volts	120	Volts
Frequency	60	CPS
~~Tachometer Reading~~		~~RPM~~

DATE 26 Nov 1963

TESTER [illegible]

SUPERVISOR Russell E. Carter

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

FEDERAL ELECTRIC CORPORATION

BRII/101

BIG RALLY II PROJECT

DATA SHEET

150 KW POWER GENERATING SYSTEM

STATION TID SOUTH VAN

1. FREQUENCY (See Para. 7)

Generator 1

Name Plate Frequency 60 cps

A. Steady State Load
- Minimum Frequency Reading 60 cps
- Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load
- Minimum Frequency 59 cps
- Maximum Frequency 61 cps
- Recovery Time 2 Seconds

~~C. Sudden Change - No Load to Full Load~~
- ~~Minimum Frequency~~ ~~cps~~
- ~~Maximum Frequency~~ ~~cps~~
- ~~Recovery Time~~ ~~Seconds~~

Generator II

Name Plate Frequency 60 cps

A. Steady State Load
- Minimum Frequency Reading 60 cps
- Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load
- Minimum Frequency 59 cps
- Maximum Frequency 61 cps
- Recovery Time 2 Seconds

~~C. Sudden Change - No Load to Full Load~~
- ~~Minimum Frequency~~ ~~cps~~
- ~~Maximum Frequency~~ ~~cps~~
- ~~Recovery Time~~ ~~Seconds~~

DATE 26 November 1963

TESTER Dorothy C. Mabert

SUPERVISOR Russell E. Carter

QUALITY ASSURANCE Gertrude M. Hunt

GEEIA Walter L. Craig

9-7

FEDERAL ELECTRIC CORPORATION BRII/102

BIG RALLY II PROJECT

DATA SHEET

150 KW POWER GENERATING SYSTEM

STATION TID Source Und

2. LOAD BALANCE (See Para. 8)

	Test I	Test II (Corrected Unbalance)
Generator I		
Phase I		
Amperes	318	
Volts	120	
Volts x Amperes	38,160	
Phase II		
Amperes	320	
Volts	122	
Volts x Amperes	39040	
Phase III		
Amperes	241	
Volts	122	
Volts x Amperes	~~XXX~~ 29402	
Generator II		
Phase I		
Amperes	305	
Volts	120	
Volts x Amperes	36600	
Phase II		
Amperes	305	
Volts	121	
Volts x Amperes	36905	
Phase III		
Amperes	330	
Volts	121	
Volts x Amperes	39930	

DATE 26 November 1963

TESTER Dorton C Mobert

SUPERVISOR Russell E Carter

QUALITY ASSURANCE Patrick J Hunt

GEEIA Lenter L Craig

FEDERAL ELECTRIC CORPORATION BRII/103

BIG RALLY II PROJECT

DATA SHEET

150 KW POWER GENERATION SYSTEM

STATION TID South Van

3. PHASING (See Para. 9)

Generator I

Phase I	120.5 volts
Phase II	120 volts
Phase III	120.5 volts

Generator II

Phase I	120.5 volts
Phase II	120 volts
Phase III	120.5 volts

4. NEUTRAL GROUNDING (See Para. 10)

Generator I

Ground Rod to Neutral Terminal .2 OHMS

Generator II

Ground Rod to Neutral Terminal .2 OHMS

DATE 26 November 1963

TESTER Boston C Mabitt

SUPERVISOR Russell E Carter

QUALITY ASSURANCE Patrick H Hunt

GEEIA Walter L Ray

FEDERAL ELECTRIC CORPORATION BRII/104

BIG RALLY II PROJECT

DATA SHEET

150 KW DIESEL GENERATOR SYSTEM

STATION TID SOUTH VAN

5. TERMINAL VOLTAGE (See Para. II)

Percent Voltage Drop $\frac{\text{Generator Panel Board Voltage - Terminal Voltage}}{\text{Generator Panel Board Voltage}} \times 100\%$

3 Phase 208 Volts

		Generator Panel Board Volt.	Term. Volts	% Volt Drop
Feeder I	Phase 1 & 2	210	210	
	Phase 2 & 3	209	211	1%
	Phase 3 & 1	213	213	
	Phase 1 to Neutral	120	121	.8%
	Phase 2 to Neutral	118	117	1%
	Phase 3 to Neutral	121	120	1%
Feeder II	Phase 1 & 2	212	210	1%
	Phase 2 & 3	212	212	
	Phase 3 & 1	213	213	
	Phase 1 to Neutral	121	121	
	Phase 2 to Neutral	118	117	1%
	Phase 3 to Neutral	121	121	
Feeder III	Phase 1 & 2	212		
	Phase 2 & 3	212		
	Phase 3 & 1	213		
	Phase 1 to Neutral	120		
	Phase 2 to Neutral	118		
	Phase 3 to Neutral	121		

DATE 26 November 1963

TESTER Dexter C Mabert

SUPERVISOR Russell E Carter

QUALITY ASSURANCE Patrick H Hunt

GEETA Walter L Cary

FEDERAL ELECTRIC CORPORATION BRII/105

BIG RALLY II PROJECT

DATA SHEET

150 KW POWER GENERATING SYSTEM

STATION TID SOUTH VAN

6. GENERATOR TRANSFER OPERATION (See Para. 12)

Generator I

	Normal Operating Conditions	Conditions New Duty Unit After Transfer
Voltage	121 121 122	121 121 122
Amperage	310 350 370	310 350 370
Wattage	115 KW	115 KW
Frequency	60 cps	60 cps

Time in Seconds to Effect Transfer 6 seconds.

Generator II

	Normal Operating Conditions	Conditions New Duty Unit After Transfer
Voltage	121 121 122	121 121 122
Amperage	310 350 370	310 350 370
Wattage	115 KW	115 KW
Frequency	60 cps	60 cps

Time in Seconds to Effect Transfer 7 seconds.

DATE 26 November 1963

TESTER [illegible]

SUPERVISOR Russell E Carter

QUALITY ASSURANCE [illegible]

GEEIA Walter L Gray

FEDERAL ELECTRIC CORPORATION BRII/106

BIG RALLY II PROJECT

DATA SHEET

150 KW DIESEL GENERATING SYSTEM

STATION T ID SOUTH VAN

7. PARALLELING TEST (See Para. 13)

Generator I (After Paralleling)

Amps	310 380 350	Amps
Watts	118 KW	Watts
Volts	121 120 121	Volts
Frequency	60 cps	CPS
~~Tachometer Reading~~		~~RPM~~

Generator II (After Paralleling)

Amps	320 370 400	Amps
Watts	115 KW	Watts
Volts	118 120 120	Volts
Frequency	60	CPS
~~Tachometer Reading~~		~~RPM~~

* A salt water dummy load was us ed for this test which accounts for the different readings after paralleling the units.

DATE 26 November 1963

TESTER Gerald C Mabel

SUPERVISOR Russell E Carter

QUALITY ASSURANCE Patrick H. Hunt

GEEIA Walter L Craig

FEDERAL ELECTRIC CORPORATION BRII/111

BIG RALLY II PROJECT

DATA SHEET

60 KW POWER GENERATING SYSTEM

STATION TAL

FREQUENCY (See Para. 7)

Generator I

Name Plate Frequency 60 cps

A. Steady State Load
- Minimum Frequency Reading 60 cps
- Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load
- Minimum Frequency 60 cps
- Maximum Frequency 61 cps
- Recovery Time 3 Seconds

~~C. Sudden Change - No Load to Full Load~~
- ~~Minimum Frequency~~ cps
- ~~Maximum Frequency~~ cps
- ~~Recovery Time~~ Seconds

Generator II

Name Plate Frequency 60 cps

A. Steady State Load
- Minimum Frequency Reading m 60 cps
- Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load
- Minimum Frequency 60 cps
- Maximum Frequency 61 cps
- Recovery Time 2 Seconds

~~C. Sudden Change - No Load to Full Load~~
- ~~Minimum Frequency~~ cps
- ~~Maximum Frequency~~ cps
- ~~Recovery Time~~ Seconds

DATE 28 NOV. 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter L Gray

9-13

FEDERAL ELECTRIC CORPORATION BRII/112

BIG RALLY II PROJECT

DATA SHEET

60 KW POWER GENERATING SYSTEM

STATION TAL

LOAD BALANCE (See Para. 8)

Generator ~~X~~ 2

	Test I	Test II (Corrected Unbalance)
Phase I		
Amperes	65	
Volts	120	
Volts x Amperes	7800	
Phase II		
Amperes	70	
Volts	120	
Volts x Amperes	8400	
Phase III		
Amperes	80	
Volts	120	
Volts x Amperes	9600	

Generator ~~XX~~ 1

Phase I		
Amperes	60	
Volts	120	
Volts x Amperes	7200	
Phase II		
Amperes	90	
Volts	117	
Volts x Amperes	10530	
Phase III		
Amperes	80	
Volts	118	
Volts x Amperes	9440	

DATE 28 NOV. 63

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA: Walter L Cray

9-14

FEDERAL ELECTRIC CORPORATION BRII/113

BIG RALLY II PROJECT

DATA SHEET

60 KW POWER GENERATING SYSTEM

STATION TAL

PHASING (See Para. 9)

Generator I

Phase I	120	volts
Phase II	117	volts
Phase III	118	volts

Generator II

Phase I	120	volts
Phase II	120	volts
Phase III	120	volts

NEUTRAL GROUNDING (See Para. 10)

Generator I

Ground Rod to Neutral Terminal ZERO OHMS

Generator II

Ground Rod to Neutral Terminal ZERO OHMS

DATE 28 NOV. 63

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA. [illegible]

9-15

FEDERAL ELECTRIC CORPORATION BRII/114

BIG RALLY II PROJECT

DATA SHEET

60 KW DIESEL GENERATOR SYSTEM

STATION TAL

TERMINAL VOLTAGE (See Para. 11)

Percent Voltage Drop $\frac{(\text{Generator Panel Board Voltage} - \text{Terminal Voltage})}{\text{Generator Panel Board Voltage}} \times 100\%$

Single Phase 208 Volts

	Generator Panel Board Voltage	Terminal Volts	% Volt Drop
Transformer I	N/A		
Transformer II			

Three Phase 208 Volts

	Generator Panel Board Voltage	Terminal Volts	~~X%~~ Volt Drop
Phase 1 to 2	212	210	2 V
Phase 2 to 3	212	212	0
Phase 3 to 1	214	213	1 V
Phase 1 to Neutral	130	129	1 V
Phase 2 to Neutral	128	128	0
Phase 3 to Neutral	129	129	0

DATE 28 NOV. 63

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter R Craig

9-16

FEDERAL ELECTRIC CORPORATION BRII/115

BIG RALLY II PROJECT

DATA SHEET

60 KW POWER GENERATOR SYSTEM

STATION TAL

GENERATOR TRANSFER OPERATION (See Para. 12)

Generator I

	Normal Operating Conditions	Conditions New Duty Unit After Transfer
Voltage	125	123
Amperage	166	173
Wattage	47 KW	43 KW
Frequency	60	60

Time in Seconds to Effect Transfer 7 Seconds.

Generator II

	Normal Operating Conditions	Conditions New Duty Unit After Transfer
Voltage	122	125
Amperage	162	163
Wattage	40 KW	46 KW
Frequency	60	60

Time in Seconds to Effect Transfer 7 Seconds.

DATE 28 NOV. 63

TESTER Ignatio C Mabit

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter L Craig

FEDERAL ELECTRIC CORPORATION BRII/116

BIG RALLY II PROJECT

DATA SHEET

60 KW DIESEL GENERATING SYSTEM

STATION TAL

PARALLELING TEST (See Para. 13)

Generator I (After Paralleling)

Amps	174	Amps
Watts KW	55	Watts
Volts	127	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

Generator II (After Paralleling)

Amps	170	Amps
Watts KW	46	Watts
Volts	123	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

DATE 28 NOV. 63

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter R. Craig

9-18

FEDERAL ELECTRIC CORPORATION BRII/111

BIG RALLY II PROJECT

DATA SHEET

60 KW POWER GENERATING SYSTEM

STATION TKR

FREQUENCY (See Para. 7)

Generator I

Name Plate Frequency 60 cps

A. Steady State Load
- Minimum Frequency Reading 60 cps
- Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load
- Minimum Frequency 59 cps
- Maximum Frequency 62 cps
- Recovery Time 3 Seconds

~~C. Sudden Change - No Load to Full Load~~
- ~~Minimum Frequency~~ cps
- ~~Maximum Frequency~~ cps
- ~~Recovery Time~~ Seconds

Generator II

Name Plate Frequency 60 cps

A. Steady State Load
- Minimum Frequency Reading 60 cps
- Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load
- Minimum Frequency 59 cps
- Maximum Frequency 62 cps
- Recovery Time 3 Seconds

~~C. Sudden Change - No Load to Full Load~~
- ~~Minimum Frequency~~ cps
- ~~Maximum Frequency~~ cps
- ~~Recovery Time~~ Seconds

DATE 22 OCTOBER 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

9-19

FEDERAL ELECTRIC CORPORATION BRII/112

BIG RALLY II PROJECT

DATA SHEET

60 KW POWER GENERATING SYSTEM

STATION TKR

LOAD BALANCE (See Para. 8) THIS COULD NOT BE PREFORMED AT THIS TIME DUE TO THE INCOMPLETE CONFIGURATION OF EQUIPMENT AND DUMMY LOADS

Generator I AT THIS SITE.

	Test I	Test II (Corrected Unbalance)
Phase I		
Amperes	____	____
Volts	____	____
Volts x Amperes	____	____
Phase II		
Amperes	____	____
Volts	____	____
Volts x Amperes	____	____
Phase III		
Amperes	____	____
Volts	____	____
Volts x Amperes	____	____
Generator II		
Phase I		
Amperes	____	____
Volts	____	____
Volts x Amperes	____	____
Phase II		
Amperes	____	____
Volts	____	____
Volts x Amperes	____	____
Phase III		
Amperes	____	____
Volts	____	____
Volts x Amperes	____	____

DATE 22 OCTOBER 1963

TESTER J U Hudson

SUPERVISOR Raymond Anderson

QUALITY ASSURANCE [illegible]

GEETA Willis Craig

9-20

FEDERAL ELECTRIC CORPORATION BRII/113

BIG RALLY II PROJECT

DATA SHEET

60 KW POWER GENERATING SYSTEM

STATION TKR

PHASING (See Para. 9)

Generator I

Phase I	120	volts
Phase II	120	volts
Phase III	120	volts

Generator II

Phase I	120	volts
Phase II	120	volts
Phase III	120	volts

NEUTRAL GROUNDING (See Para. 10)

Generator I

Ground Rod to Neutral Terminal .2 OHMS

Generator II

Ground Rod to Neutral Terminal .2 OHMS

DATE 22 OCTOBER 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

9-21

FEDERAL ELECTRIC CORPORATION BRII/114

BIG RALLY II PROJECT

DATA SHEET

60 KW DIESEL GENERATOR SYSTEM

STATION TKR

TERMINAL VOLTAGE (See Para. 11)

Percent Voltage Drop $\frac{(\text{Generator Panel Board Voltage} - \text{Terminal Voltage})}{\text{Generator Panel Board Voltage}} \times 100\%$

Single Phase 208 Volts

	Generator Panel Board Voltage	Terminal Volts	% Volt Drop
Transformer I	N/A	N/A	N/A
Transformer II	N/A	N/A	N/A

Three Phase 208 Volts

	Generator Panel Board Voltage	Terminal Volts	% Volt Drop
Phase 1 to 2	200 Volts	198	1%
Phase 2 to 3	197 Volts	195	1%
Phase 3 to 1	195 Volts	192	1.5%
Phase 1 to Neutral	112 Volts	112	No Drop
Phase 2 to Neutral	112 Volts	112	No Drop
Phase 3 to Neutral	112 Volts	112	No Drop

DATE 22 OCTOBER 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

9-22

FEDERAL ELECTRIC CORPORATION BRII/115

BIG RALLY II PROJECT

DATA SHEET

60 KW POWER GENERATOR SYSTEM

STATION TKR

GENERATOR TRANSFER OPERATION (See Para. 12)

Generator I

	Normal Operating Conditions	Conditions New Duty Unit After Transfer
Voltage	120,120,120	120,120,120
Amperage	180,150,185	190,160,195
Wattage	56 KW	59 KW
Frequency	60 cps	60 cps

Time in Seconds to Effect Transfer 17 Seconds.

Generator II

	Normal Operating Conditions	Conditions New Duty Unit After Transfer
Voltage	121,121,120	121,121,120
Amperage	190,160,195	190,160,195
Wattage	59 KW	59 KW
Frequency	60 cps	60 cps

Time in Seconds to Effect Transfer 6 Seconds.

DATE 22 OCTOBER 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

9-23

FEDERAL ELECTRIC CORPORATION BRII/116

BIG RALLY II PROJECT

DATA SHEET

60 KW DIESEL GENERATING SYSTEM

STATION TKR

PARALLELING TEST (See Para. 13)

Generator I (After Paralleling)

Amps	90,50,95	Amps
Watts	28.5 KILO	Watts
Volts	121,121,121	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

Generator II (After Paralleling)

Amps	85,45,90	Amps
Watts	26.5 KILO	Watts
Volts	121,121,121	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

DATE 2[illegible] OCTOBER 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

9-24

FEDERAL ELECTRIC CORPORATION BRII/111

BIG RALLY II PROJECT

DATA SHEET

60 KW POWER GENERATING SYSTEM

STATION GHO

FREQUENCY (See Para. 7)

Generator I

Name Plate Frequency 60 cps

A. Steady State Load
- Minimum Frequency Reading 60 cps
- Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load
- Minimum Frequency ~~61~~ 59 cps
- Maximum Frequency 61 cps
- Recovery Time 3 Seconds

~~C. Sudden Change - No Load to Full Load~~
- ~~Minimum Frequency~~ ___ cps
- ~~Maximum Frequency~~ ___ cps
- ~~Recovery Time~~ ___ Seconds

Generator II

Name Plate Frequency 60 cps

A. Steady State Load
- Minimum Frequency Reading 60 cps
- Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load
- Minimum Frequency 59 cps
- Maximum Frequency 61 cps
- Recovery Time 3 Seconds

~~C. Sudden Change - No Load to Full Load~~
- ~~Minimum Frequency~~ ___ cps
- ~~Maximum Frequency~~ ___ cps
- ~~Recovery Time~~ ___ Seconds

DATE 11/21/63

TESTER Gormallen

SUPERVISOR Gormallen

QUALITY ASSURANCE William R. [illegible]

GEEIA ~~gerix~~ Walter L Craig

9-25

FEDERAL ELECTRIC CORPORATION BRII/112

BIG RALLY II PROJECT

DATA SHEET

60 KW POWER GENERATING SYSTEM

STATION GHO

LOAD BALANCE (See Para. 8)

Generator I

	Test I	Test II (Corrected Unbalance)
Phase I		
Amperes	130	
Volts	120	
Volts x Amperes	15600	
Phase II		
Amperes	130	
Volts	120	
Volts x Amperes	15600	
Phase III		
Amperes	122	
Volts	120	
Volts x Amperes	14640	

Generator II

Phase I		
Amperes	130	
Volts	120	
Volts x Amperes	15600	
Phase II		
Amperes	130	
Volts	120	
Volts x Amperes	15600	
Phase III		
Amperes	122	
Volts	120	
Volts x Amperes	14640	

DATE 21 Nov 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE William R. [illegible]

GEEIA Walter L Craig

FEDERAL ELECTRIC CORPORATION BRII/113

BIG RALLY II PROJECT

DATA SHEET

60 KW POWER GENERATING SYSTEM

STATION GHO

PHASING (See Para. 9)

Generator I

Phase I	120	volts
Phase II	120	volts
Phase III	120	volts

Generator II

Phase I	120	volts
Phase II	120	volts
Phase III	120	volts

NEUTRAL GROUNDING (See Para. 10)

Generator I

Ground Rod to Neutral Terminal 0 OHMS

Generator II

Ground Rod to Neutral Terminal 0 OHMS

DATE 11/21/63

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter F. Craig

FEDERAL ELECTRIC CORPORATION BRII/114

BIG RALLY II PROJECT

DATA SHEET

60 KW DIESEL GENERATOR SYSTEM

STATION GHO

TERMINAL VOLTAGE (See Para. 11)

Percent Voltage Drop $\frac{(\text{Generator Panel Board Voltage} - \text{Terminal Voltage})}{\text{Generator Panel Board Voltage}} \times 100\%$

Single Phase 208 Volts

	Generator Panel Board Voltage	Terminal Volts	% Volt Drop
Transformer I			
Transformer II			

Three Phase 208 Volts

	Generator Panel Board Voltage	Terminal Volts	% Volt Drop
Phase 1 to 2	206	205	%.009
Phase 2 to 3	206	205	%.009
Phase 3 to 1	206	206	
Phase 1 to Neutral	120	120	
Phase 2 to Neutral	120	120	
Phase 3 to Neutral	120	120	

DATE 11/21/63

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter L Craig

FEDERAL ELECTRIC CORPORATION BRII/115

BIG RALLY II PROJECT

DATA SHEET

60 KW POWER GENERATOR SYSTEM

STATION GHO

GENERATOR TRANSFER OPERATION (See Para. 12)

Generator I

	Normal Operating Conditions	Conditions New Duty Unit After Transfer
Voltage	120	120
Amperage	128	128
Wattage	22000	22000
Frequency	60	60

Time in Seconds to Effect Transfer 12 Seconds.

Generator II

	Normal Operating Conditions	Conditions New Duty Unit After Transfer
Voltage	120	120
Amperage	128	128
Wattage	22000	2200
Frequency	60	60

Time in Seconds to Effect Transfer 10 Seconds.

DATE 11/21/63

TESTER Edwin Allen

SUPERVISOR Edwin Allen

QUALITY ASSURANCE William R. [illegible]

GEEIA Walter L Craig

FEDERAL ELECTRIC CORPORATION BRII/116

BIG RALLY II PROJECT

DATA SHEET

60 KW DIESEL GENERATING SYSTEM

STATION GHO

PARALLELING TEST (See Para. 13)

Generator I (After Paralleling)

Amps	65	Amps
Watts	11000	Watts
Volts	120	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

Generator II (After Paralleling)

Amps	65	Amps
Watts	11000	Watts
Volts	120	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

DATE 11/21/63

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE William R. [illegible]

GEEIA Walter L Craig

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FEDERAL ELECTRIC CORPORATION BRII/121

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION G I M

FREQUENCY (See Para. 7)

Generator I

Name Plate Frequency 60 cps

A. Steady State Load

Minimum Frequency Reading 60 cps

Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load

Minimum Frequency 59.5 cps

Maximum Frequency 60 cps

Recovery Time 3 Seconds

~~C. Sudden Change - No Load to Full Load~~

~~Minimum Frequency~~ cps

~~Maximum Frequency~~ cps

~~Recovery Time~~ Seconds

Generator II

Name Plate Frequency 60 cps

A. Steady State Load

Maximum Frequency Reading 60 cps

Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load

Minimum Frequency 59.5 cps

Maximum Frequency 60 cps

Recovery Time 3 Seconds

~~C. Sudden Change - No Load to Full Load~~

~~Minimum Frequency~~ cps

~~Maximum Frequency~~ cps

~~Recovery Time~~ Seconds

DATE 15 November 1963

TESTER C W Mahlen

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter L Craig

9-31

FEDERAL ELECTRIC CORPORATION BRII/122

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION G I M

PHASING (See Para. 8)

Generator I

Position I 120 Volts

Position II 238 Volts

Generator II

Position I 120 Volts

Position II 237 Volts

NEUTRAL GROUNDING (See Para. 9)

Generator I

Ground Rod to Neutral Terminal 0 OHMS

Generator II

Ground Rod to Neutral Terminal 0 OHMS

DATE 15 November 1963

TESTER C W Mahlen

SUPERVISOR K Allen

QUALITY ASSURANCE L Bowles

GEEIA Walter L Craig

FEDERAL ELECTRIC CORPORATION BRII/123

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATOR SYSTEM

STATION G I M

TERMINAL VOLTAGE (See Para. 10)

Percent Voltage Drop $\frac{\text{(Generator Panelboard Voltage - Terminal Voltage)}}{\text{Generator Panelboard Voltage}} \times 100\%$

Single Phase 240 Volts

		Generator Panelboard Volt.	Term. Volts	% Volt Drop
MRC-80	N/A			

Single Phase 120 Volts

	Generator Panelboard Volt.	Term. Volts	% Volt Drop
~~MRCXXX~~ LOS			
Line 1 to Neutral	117	116	.85%
Line 2 to Neutral	118	118	0%

DATE 15 November 196 3

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter L Craig

FEDERAL ELECTRIC CORPORATION BRII/124

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION G I M

GENERATOR TRANSFER OPERATION (See Para. 11)

Generator 1

	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	240	240
Amperage	80	80
Wattage	17000	17000
Frequency	60	60

Time in Seconds to Effect Transfer 3 Seconds.

Generator II

	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	240	240
Amperage	76	76
Wattage	16500	16500
Frequency	60	60

Time in Seconds to Effect Transfer 4 Seconds.

DATE 15 November 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter L Craig

FEDERAL ELECTRIC CORPORATION BRII/125

BIG RALLY II PROJECT

DATA SHEET

20 KW DIESEL GENERATING SYSTEM

STATION G I M

PARALLELING TEST (See Para. 12)

Generator I (After Paralleling)

Amps	32	Amps
Watts	8000	Watts
Volts	240	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

Generator II (After Paralleling)

Amps	32	Amps
Watts	8000	Watts
Volts	240	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

DATE 15 November 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEBIA Walter L Craig

FEDERAL ELECTRIC CORPORATION BRII/121

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION G T A

FREQUENCY (See Para. 7)

Generator I

Name Plate Frequency 60 cps

A. Steady State Load

Minimum Frequency Reading 60 cps

Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load

Minimum Frequency 60 cps

Maximum Frequency 61 cps

Recovery Time 3 Seconds

~~C. Sudden Change - No Load to Full Load~~

~~Minimum Frequency~~ cps

~~Maximum Frequency~~ cps

~~Recovery Time~~ Seconds

Generator II

Name Plate Frequency 60 cps

A. Steady State Load

Maximum Frequency Reading 60 cps

Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load

Minimum Frequency 60 cps

Maximum Frequency 61 cps

Recovery Time 3 Seconds

~~C. Sudden Change - No Load to Full Load~~

~~Minimum Frequency~~ cps

~~Maximum Frequency~~ cps

~~Recovery Time~~ Seconds

DATE 16 November 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter L Craig

9-36

FEDERAL ELECTRIC CORPORATION BRII/122

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION G T A

PHASING (See Para. 8)

Generator I

Position I 121 Volts
Position II 239 Volts

Generator II

Position I 120 Volts
Position II 238 Volts

NEUTRAL GROUNDING (See Para. 9)

Generator I

Ground Rod to Neutral Terminal 0 OHMS

Generator II

Ground Rod to Neutral Terminal 0 OHMS

DATE 16 November 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter L Craig

FEDERAL ELECTRIC CORPORATION BRII/123

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATOR SYSTEM

STATION G T A

TERMINAL VOLTAGE (See Para. 10)

Percent Voltage Drop $\frac{\text{(Generator Panelboard Voltage - Terminal Voltage)}}{\text{Generator Panelboard Voltage}} \times 100\%$

Single Phase 240 Volts

	Generator Panelboard Volt.	Term. Volts	% Volt Drop
~~MRCO80X~~ N/A			

Single Phase 120 Volts

	Generator Panelboard Volt.	Term. Volts	% Volt Drop
~~MRCO80X~~ L O S			
Line 1 to Neutral	120	119	.8%
Line 2 to Neutral	122	121	.8%

DATE 16 November 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter L Gray

FEDERAL ELECTRIC CORPORATION BRII/124

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION G T A

GENERATOR TRANSFER OPERATION (See Para. 11)

Generator 1

	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	245	245
Amperage	108	108
Wattage	22000	22000
Frequency	60	60

Time in Seconds to Effect Transfer 4 Seconds.

Generator II

	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	245	245
Amperage	108	108
Wattage	22000	22000
Frequency	60	60

Time in Seconds to Effect Transfer 5 Seconds.

DATE 16 November 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter L Craig

FEDERAL ELECTRIC CORPORATION BRII/125

BIG RALLY II PROJECT

DATA SHEET

20 KW DIESEL GENERATING SYSTEM

STATION G T A

PARALLELING TEST (See Para. 12)

Generator I (After Paralleling)

Amps	50	Amps
Watts	9000	Watts
Volts	240	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

Generator II (After Paralleling)

Amps	50	Amps
Watts	9000	Watts
Volts	240	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

DATE 16 November 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter L Craig

FEDERAL ELECTRIC CORPORATION BRII/121

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION GAG

FREQUENCY (See Para. 7)

Generator I

Name Plate Frequency 60 cps

A. Steady State Load

Minimum Frequency Reading 60 cps

Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load

Minimum Frequency 59 cps

Maximum Frequency 61 cps

Recovery Time 3 Seconds

~~C. Sudden Change - No Load to Full Load~~

~~Minimum Frequency~~ cps

~~Maximum Frequency~~ cps

~~Recovery Time~~ Seconds

Generator II

Name Plate Frequency 60 cps

A. Steady State Load

Maximum Frequency Reading 60 cps

Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load

Minimum Frequency 59 cps

Maximum Frequency 61 cps

Recovery Time 3 Seconds

~~C. Sudden Change - No Load to Full Load~~

~~Minimum Frequency~~ cps

~~Maximum Frequency~~ cps

~~Recovery Time~~ Seconds

DATE 20 November 1963

TESTER [illegible]

SUPERVISOR Randall C. Richard

QUALITY ASSURANCE William R. [illegible]

GEEIA [illegible]

FEDERAL ELECTRIC CORPORATION BRII/122

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION GAG

PHASING (See Para. 8)

Generator I

Position I 240 Volts

Position II 120 Volts

Generator II

Position I 240 Volts

Position II 121 Volts

NEUTRAL GROUNDING (See Para. 9)

Generator I

Ground Rod to Neutral Terminal 0 OHMS

Generator II

Ground Rod to Neutral Terminal 0 OHMS

DATE 20 November 1963

TESTER C.V. Mallen

SUPERVISOR Randall C. Pickard

QUALITY ASSURANCE Wilson R. [illegible]

GEEIA Walter H. Craig

FEDERAL ELECTRIC CORPORATION BRII/123

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATOR SYSTEM

STATION GAG

TERMINAL VOLTAGE (See Para. 10)

Percent Voltage Drop $\frac{\text{(Generator Panelboard Voltage - Terminal Voltage)}}{\text{Generator Panelboard Voltage}} \times 100\%$

Single Phase 240 Volts

	Generator Panelboard Volt.	Term. Volts	% Volt Drop
~~XXXXXX~~ LOS	239	238	0.009

Single Phase 120 Volts

	Generator Panelboard Volt.	Term. Volts	% Volt Drop
~~XXXXXX~~ LOS			
Line 1 to Neutral	240	240	---
Line 2 to Neutral	~~XXX~~ 120	120	---

DATE 20 November 1963

TESTER C W Mallen

SUPERVISOR Randall C. Packard

QUALITY ASSURANCE William R. Jones

GEEIA Walter R. Craig

FEDERAL ELECTRIC CORPORATION BRII/124

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION GAG

GENERATOR TRANSFER OPERATION (See Para. 11)

Generator 1

	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	240	239
Amperage	92	92
Wattage	20,000	20,000
Frequency	60	60

Time in Seconds to Effect Transfer 5 Seconds.

Generator II

	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	240	240
Amperage	92	92
Wattage	20,000	20,000
Frequency	60	60

Time in Seconds to Effect Transfer 6 Seconds.

DATE 20 November 1963

TESTER C W Mahlen

SUPERVISOR Randall C Packard

QUALITY ASSURANCE William R Roth

GEEIA Walter R Craig

FEDERAL ELECTRIC CORPORATION BRII/125

BIG RALLY II PROJECT

DATA SHEET

20 KW DIESEL GENERATING SYSTEM

STATION GAG

PARALLELING TEST (See Para. 12)

Generator I (After Paralleling)

Amps	39	Amps
Watts	7,000	Watts
Volts	239	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

Generator II (After Paralleling)

Amps	39	Amps
Watts	7,000	Watts
Volts	239	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

DATE 20 November 1963

TESTER [illegible]

SUPERVISOR Randolph C. Parker

QUALITY ASSURANCE William R. [illegible]

GEEIA Walter L. Ray

9-45

FEDERAL ELECTRIC CORPORATION BRII/121

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION GPE

FREQUENCY (See Para. 7)

Generator I

Name Plate Frequency 60 cps

A. Steady State Load

Minimum Frequency Reading 60 cps

Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load

Minimum Frequency 59 cps

Maximum Frequency 61 cps

Recovery Time 3 Seconds

~~C. Sudden Change - No Load to Full Load~~

~~Minimum Frequency~~ cps

~~Maximum Frequency~~ cps

~~Recovery Time~~ Seconds

Generator II

Name Plate Frequency 60 cps

A. Steady State Load

Maximum Frequency Reading 60 cps

Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load

Minimum Frequency 59 cps

Maximum Frequency 61 cps

Recovery Time 3 Seconds

~~C. Sudden Change - No Load to Full Load~~

~~Minimum Frequency~~ cps

~~Maximum Frequency~~ cps

~~Recovery Time~~ Seconds

DATE 11/19/63

TESTER C W Mallen

SUPERVISOR George E Mc

QUALITY ASSURANCE William R. Mc

GEEIA Walter L Craig

9-46

FEDERAL ELECTRIC CORPORATION BRII/122

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION GPE

PHASING (See Para. 8)

Generator I

Position I 240 Volts
Position II 121 Volts

Generator II

Position I 240 Volts
Position II 120 Volts

NEUTRAL GROUNDING (See Para. 9)

Generator I

Ground Rod to Neutral Terminal 0 OHMS

Generator II

Ground Rod to Neutral Terminal 0 OHMS

DATE 11/19/63

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

FEDERAL ELECTRIC CORPORATION BRII/123

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATOR SYSTEM

STATION GPE

TERMINAL VOLTAGE (See Para. 10)

Percent Voltage Drop $\frac{\text{(Generator Panelboard Voltage - Terminal Voltage)}}{\text{Generator Panelboard Voltage}} \times 100\%$

Single Phase 240 Volts

	Generator Panelboard Volt.	Term. Volts	% Volt Drop
L.O.S. ~~MRG-80~~	240	239	%.009

Single Phase 120 Volts

	Generator Panelboard Volt.	Term. Volts	% Volt Drop
L.O.S. ~~MRG-80~~			
Line 1 to Neutral	120	120	none
Line 2 to Neutral	120	120	"

DATE 11/19/63

TESTER Edw Mahlen

SUPERVISOR George C. Mc

QUALITY ASSURANCE William R. Nolt

GEEIA Walter D. Craig

9-48

FEDERAL ELECTRIC CORPORATION BRII/124

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION GPE

GENERATOR TRANSFER OPERATION (See Para. 11)

Generator 1

	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	240	240
Amperage	84	87
Wattage	17.500	17.500
Frequency	60	60

Time in Seconds to Effect Transfer 6 Seconds.

Generator II

	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	240	240
Amperage	87	84
Wattage	17.500	17.500
Frequency	60	60

Time in Seconds to Effect Transfer 7 Seconds.

DATE 11/19/63

TESTER Edw Mallen

SUPERVISOR George C. Ulk

QUALITY ASSURANCE William R. Kelly

GEEIA Walter L. Craig

FEDERAL ELECTRIC CORPORATION BRII/125

BIG RALLY II PROJECT

DATA SHEET

20 KW DIESEL GENERATING SYSTEM

STATION GPE

PARALLELING TEST (See Para. 12)

Generator I (After Paralleling)

Amps	34	Amps
Watts	7,000	Watts
Volts	240	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

Generator II (After Paralleling)

Amps	32	Amps
Watts	8,000	Watts
Volts	240	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

DATE 11/19/63

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

9-50

PARAMUS

FEDERAL ELECTRIC CORPORATION BRII/121

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION TAO

FREQUENCY (See Para. 7)

Generator I

Name Plate Frequency 60 cps

A. Steady State Load

Minimum Frequency Reading 60 cps

Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load

Minimum Frequency 60 cps

Maximum Frequency 61 cps

Recovery Time 2 Seconds

~~C. Sudden Change - No Load to Full Load~~

~~Minimum Frequency~~ ~~cps~~

~~Maximum Frequency~~ ~~cps~~

~~Recovery Time~~ ~~Seconds~~

Generator II

Name Plate Frequency 60 cps

A. Steady State Load

Maximum Frequency Reading 60 cps

Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load

Minimum Frequency 60 cps

Maximum Frequency 61 cps

Recovery Time 3 Seconds

~~C. Sudden Change - No Load to Full Load~~

~~Minimum Frequency~~ ~~cps~~

~~Maximum Frequency~~ ~~cps~~

~~Recovery Time~~ ~~Seconds~~

DATE 27 NOV. 63

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEETA Walter L Craig

FEDERAL ELECTRIC CORPORATION BRII/122

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION TAO

PHASING (See Para. 8)

Generator I

Position I 121 Volts

Position II 238 Volts

Generator II

Position I 123 Volts

Position II 240 Volts

NEUTRAL GROUNDING (See Para. 9)

Generator I

Ground Rod to Neutral Terminal ZERO OHMS

Generator II

Ground Rod to Neutral Terminal ZERO OHMS

DATE 27 NOV., 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEETA Walter L Craig

9-52

FEDERAL ELECTRIC CORPORATION BRII/123

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATOR SYSTEM

STATION ~~BAL~~ TCO

TERMINAL VOLTAGE (See Para. 10)

$$\text{Percent Voltage Drop } \frac{(\text{Generator Panelboard Voltage} - \text{Terminal Voltage})}{\text{Generator Panelboard Voltage}} \times 100\%$$

Single Phase 240 Volts

	Generator Panelboard Volt.	Term. Volts	% Volt Drop
MRC-80	235	235	ZERO

Single Phase 120 Volts

	Generator Panelboard Volt.	Term. Volts	% Volt Drop
MRC-80			
Line 1 to Neutral	121	121	ZERO
Line 2 to Neutral	121	121	ZERO

DATE 27 NOV., 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter L Gray

FEDERAL ELECTRIC CORPORATION BRII/124

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION ~~TAL~~ TCO

GENERATOR TRANSFER OPERATION (See Para. 11)

Generator 1

	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	242	241
Amperage	84	82
Wattage	19.5 KW	16 KW
Frequency	60	60

Time in Seconds to Effect Transfer 5 Seconds.

Generator II

	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	241	240
Amperage	82	84
Wattage	15.7 KW	19 KW
Frequency	60	60

Time in Seconds to Effect Transfer 7 Seconds.

DATE 27 NOV. 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter L Craig

9-54

FEDERAL ELECTRIC CORPORATION BRII/125

BIG RALLY II PROJECT

DATA SHEET

20 KW DIESEL GENERATING SYSTEM

STATION ~~PAL~~ TCO

PARALLELING TEST (See Para. 12)

Generator I (After Paralleling)

Amps	90	Amps
Watts	21.5 KW	Watts
Volts	239	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

Generator II (After Paralleling)

Amps	82	Amps
Watts	19 KW	Watts
Volts	238	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

DATE 27 NOV. 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEETA Walter L Roig

9-55

FEDERAL ELECTRIC CORPORATION BRII/121

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION TES

FREQUENCY (See Para. 7)

Generator I

Name Plate Frequency 60 cps

A. Steady State Load

Minimum Frequency Reading 60 cps

Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load

Minimum Frequency 60 cps

Maximum Frequency 61 cps

Recovery Time 3 Seconds

~~C. Sudden Change - No Load to Full Load~~

~~Minimum Frequency~~ cps

~~Maximum Frequency~~ cps

~~Recovery Time~~ Seconds

Generator II

Name Plate Frequency 60 cps

A. Steady State Load

Maximum Frequency Reading 60 cps

Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load

Minimum Frequency 60 cps

Maximum Frequency 61 cps

Recovery Time 3 Seconds

~~C. Sudden Change - No Load to Full Load~~

~~Minimum Frequency~~ cps

~~Maximum Frequency~~ cps

~~Recovery Time~~ Seconds

DATE 29 NOV. 63

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter L Gary

9-56

FEDERAL ELECTRIC CORPORATION BRII/122

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION TES

PHASING (See Para. 8)

Generator I

Position I 120 Volts
Position II 240 Volts

Generator II

Position I 117 Volts
Position II 238 Volts

NEUTRAL GROUNDING (See Para. 9)

Generator I

Ground Rod to Neutral Terminal ZERO OHMS

Generator II

Ground Rod to Neutral Terminal ZERO OHMS

DATE 29 NOV. 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter L Craig

9-57

FEDERAL ELECTRIC CORPORATION BRII/123

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATOR SYSTEM

STATION TES

TERMINAL VOLTAGE (See Para. 10)

$$\text{Percent Voltage Drop } \frac{(\text{Generator Panelboard Voltage} - \text{Terminal Voltage})}{\text{Generator Panelboard Voltage}} \times 100\%$$

Single Phase 240 Volts

	Generator Panelboard Volt.	Term. Volts	% Volt Drop
MRC-80	236	235	1 V

Single Phase 120 Volts

	Generator Panelboard Volt.	Term. Volts	% Volt Drop
MRC-80			
Line 1 to Neutral	120	119	1 V
Line 2 to Neutral	120	119	1 V

DATE 29 NOV. 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter L Craig

9-58

FEDERAL ELECTRIC CORPORATION BRII/124

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION TES

GENERATOR TRANSFER OPERATION (See Para. 11)

Generator 1

	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	240	238
Amperage	93	98
Wattage	20 KW	21 KW
Frequency	60	60

Time in Seconds to Effect Transfer 5 Seconds.

Generator II

	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	238	240
Amperage	93	96
Wattage	19.5 KW	19.5 KW
Frequency	60	60

Time in Seconds to Effect Transfer 4 Seconds.

DATE 29 NOV. 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter L Craig

9-59

BRII/125

FEDERAL ELECTRIC CORPORATION

BIG RALLY II PROJECT

DATA SHEET

20 KW DIESEL GENERATING SYSTEM

STATION TES

PARALLELING TEST (See Para. 12)

Generator I (After Paralleling)

Amps	117	Amps
Watts	24 KW	Watts
Volts	240	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

Generator II (After Paralleling)

Amps	124	Amps
Watts	26 KW	Watts
Volts	235	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

DATE 29 NOV. 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEETA Walter L Craig

9-60

FEDERAL ELECTRIC CORPORATION BRII/121

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION TKA

FREQUENCY (See Para. 7)

Generator I

Name Plate Frequency 60 cps

A. Steady State Load

Minimum Frequency Reading 59 cps

Maximum Frequency Reading 61 cps

B. Sudden Change - Full Load to No Load

Minimum Frequency 60 cps

Maximum Frequency 62 cps

Recovery Time 3 Seconds

~~C. Sudden Change - No Load to Full Load~~

~~Minimum Frequency~~ cps

~~Maximum Frequency~~ cps

~~Recovery Time~~ Seconds

Generator II

Name Plate Frequency 60 cps

A. Steady State Load

Maximum Frequency Reading 59 cps

Maximum Frequency Reading 61 cps

B. Sudden Change - Full Load to No Load

Minimum Frequency 60 cps

Maximum Frequency 62 cps

Recovery Time 3 Seconds

~~C. Sudden Change - No Load to Full Load~~

~~Minimum Frequency~~ cps

~~Maximum Frequency~~ cps

~~Recovery Time~~ Seconds

DATE 22nOCTOBER, 1963

TESTER [signature]

SUPERVISOR [signature]

QUALITY ASSURANCE [signature]

GEKIA [signature]

9-61

FEDERAL ELECTRIC CORPORATION BRII/122

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION TKA

PHASING (See Para. 8)

Generator I

Position I 240 Volts
Position II 120 Volts

Generator II

Position I 240 Volts
Position II 120 Volts

NEUTRAL GROUNDING (See Para. 9)

Generator I

Ground Rod to Neutral Terminal ZERO OHMS

Generator II

Ground Rod to Neutral Terminal ZERO OHMS

DATE 22 OCTOBER, 1963

TESTER

SUPERVISOR

QUALITY ASSURANCE

GEEIA

9-62

FEDERAL ELECTRIC CORPORATION BRII/123

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATOR SYSTEM

STATION TKA

TERMINAL VOLTAGE (See Para. 10)

Percent Voltage Drop $\frac{\text{(Generator Panelboard Voltage - Terminal Voltage)}}{\text{Generator Panelboard Voltage}} \times 100\%$

Single Phase 240 Volts

	Generator Panelboard Volt.	Term. Volts	% Volt Drop
~~MRC-80~~ LOS	240	240	ZERO

Single Phase 120 Volts

	Generator Panelboard Volt.	Term. Volts	% Volt Drop
MRC-80			
Line 1 to Neutral	117	117	ZERO
Line 2 to Neutral	117	117	ZERO

DATE 22 OCTOBER, 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

9-63

FEDERAL ELECTRIC CORPORATION BRII/124

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION TKA

GENERATOR TRANSFER OPERATION (See Para. 11)

Generator 1

	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	240	240
Amperage	90	93
Wattage	19.5 KW	19.5KW
Frequency	60	60

Time in Seconds to Effect Transfer 5 Seconds.

Generator II

	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	240	240
Amperage	94	95
Wattage	19.5 KW	19.5 KW
Frequency	60	60

Time in Seconds to Effect Transfer 7 Seconds.

DATE 22 OCTOBER, 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

9-64

FEDERAL ELECTRIC CORPORATION BRII/125

BIG RALLY II PROJECT

DATA SHEET

20 KW DIESEL GENERATING SYSTEM

STATION TKA

PARALLELING TEST (See Para. 12)

Generator I (After Paralleling)

Amps	93	Amps
Watts	19.5 KW	Watts
Volts	240	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

Generator II (After Paralleling)

Amps	90	Amps
Watts	19.5 KW	Watts
Volts	240	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

DATE 22 OCTOBER, 1963

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIAM [illegible]

9-65

FEDERAL ELECTRIC CORPORATION BRII/121

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION TIZ

FREQUENCY (See Para. 7)

Generator I

Name Plate Frequency 60 cps

A. Steady State Load

Minimum Frequency Reading 60 cps

Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load

Minimum Frequency 59 cps

Maximum Frequency 60 cps

Recovery Time 2 Seconds

~~C. Sudden Change - No Load to Full Load~~

~~Minimum Frequency~~ cps

~~Maximum Frequency~~ cps

~~Recovery Time~~ Seconds

Generator II

Name Plate Frequency 60 cps

A. Steady State Load

Maximum Frequency Reading 60 cps.

Maximum Frequency Reading 60 cps

B. Sudden Change - Full Load to No Load

Minimum Frequency 59 cps

Maximum Frequency 60 cps

Recovery Time 2 Seconds

~~C. Sudden Change - No Load to Full Load~~

~~Minimum Frequency~~ cps

~~Maximum Frequency~~ cps

~~Recovery Time~~ Seconds

DATE 26 OCTOBER 1963

TESTER S. C. Norbert

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Walter Craig

9-66

FEDERAL ELECTRIC CORPORATION BRII/122

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION TIZ

PHASING (See Para. 8)

Generator I

Position I 240 Volts
Position II 120 Volts

Generator II

Position I 240 Volts
Position II 120 Volts

NEUTRAL GROUNDING (See Para. 9)

Generator I

Ground Rod to Neutral Terminal ZERO OHMS

Generator II

Ground Rod to Neutral Terminal ZERO OHMS

DATE 26 OCTOBER, 1963

TESTER S. E. Mobert

SUPERVISOR Paul Lawson

QUALITY ASSURANCE [illegible]

GEEIA Walter Gray

9-67

FEDERAL ELECTRIC CORPORATION BRII/123

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATOR SYSTEM

STATION TIZ

TERMINAL VOLTAGE (See Para. 10)

$$\text{Percent Voltage Drop } \frac{(\text{Generator Panelboard Voltage} - \text{Terminal Voltage})}{\text{Generator Panelboard Voltage}} \times 100\%$$

Single Phase 240 Volts

	Generator Panelboard Volt.	Term. Volts	% Volt Drop
~~MRCCX80~~ LOS	240	240	0%

Single Phase 120 Volts

	Generator Panelboard Volt.	Term. Volts	% Volt Drop
~~MRCCX80X~~ LOS			
Line 1 to Neutral	117	117	0%
Line 2 to Neutral	117	117	0%

DATE 26 OCTOBER, 1963

TESTER [illegible]

SUPERVISOR Paul Lassch

QUALITY ASSURANCE [illegible]

GEEIA [illegible]

9-68

FEDERAL ELECTRIC CORPORATION BRII/124

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

STATION ~~TIZ~~

GENERATOR TRANSFER OPERATION (See Para. 11)

Generator 1

	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	240	241
Amperage	78	80
Wattage	16 KW	16KW
Frequency	60	60

Time in Seconds to Effect Transfer 7 Seconds.

Generator II

	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	240	240
Amperage	77	80
Wattage	16 KW	16 KW
Frequency	60	60

Time in Seconds to Effect Transfer 5 Seconds.

DATE 26 OCTOBER, 1963

TESTER J. C. Mobert

SUPERVISOR Paul Jarosch

QUALITY ASSURANCE [illegible]

GEEIA Walter Craig

9-69

FEDERAL ELECTRIC CORPORATION BRII/125

BIG RALLY II PROJECT

DATA SHEET

20 KW DIESEL GENERATING SYSTEM

STATION TIZ

PARALLELING TEST (See Para. 12)

Generator I (After Paralleling)

Amps	45	Amps
Watts	~~45~~ 10.5	Watts KW
Volts	240	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

Generator II (After Paralleling)

Amps	45	Amps
Watts	10.5 KW	Watts
Volts	240	Volts
Frequency	60	cps
~~Tachometer Reading~~		~~RPM~~

DATE 26 OCTOBER, 1963

TESTER S C Mebert

SUPERVISOR Paul Jensen

QUALITY ASSURANCE [illegible]

GEEIA Walter Berg

9-70

FEDERAL ELECTRIC CORPORATION
4861 PROJECT
DATA SHEET
PU-286/G GENERATOR SET

STATION GAR

GENERATOR SER # 1-118811 RSK 1189962 TC

		EXPECTED	ACTUAL	
7.2.B	OIL PRESSURE	15 to 20 psi	20	
7.2.C	FREQUENCY	59 to 61 cps	59.5	
7.2.D	AMMETER	NGT 52 amps	19	
7.2.D	VOLTMETER	118 to 122 amps	126	
7.2.E	MULTIMETER READING	118 to 122 VAC	121V	
7.2.F	BATTERY CHARGE RATE	NGT 6.3 amps	4.5	
7.2.G	OIL LOW-PRESSURE SHUT-OFF	Cut-off approx. 6 psi	Manual-RSK	Initial
7.2.H	LOW WATER SHUT-OFF	Cut-off approx. 2 min.	Manual-RSK	Initial
7.2.I	VOLTAGE REGULATOR	NLT 115 to 125V swing	80-148	
7.2.J	FIELD RHEOSTAT	NLT 115 to 125V swing	100-140	

DATE 17 January 1964

TESTER Henry C Hall

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph S. Kreger

9-71

FEDERAL ELECTRIC CORPORATION
486L PROJECT
DATE SHEET
PU-286/G GENERATOR SET

STATION GAR

GENERATOR SER # 2-1189962 RK 1188465 TC

		EXPECTED	ACTUAL	
7.2.B	OIL PRESSURE	15 to 20 psi	13	
7.2.C	FREQUENCY	59 to 61 cps	Broken meter	
7.2.D	AMMETER	NOT 52 amps	20	
7.2.D	VOLTMETER	118 to 122 amps	122X	
7.2.E	MULTIMETER READING	118 to 122 VAC	122V	
7.2.F	BATTERY CHARGE RATE	NOT 6.3 amps	0	
7.2.G	OIL LOW-PRESSURE SHUT-OFF	Cut-off approx. 6 psi	Manuah-RSK	Initial
7.2.H	LOW WATER SHUT-OFF	Cut-off approx. 2 min.	Manual-RSK	Initial
7.2.I	VOLTAGE REGULATOR	NLT 115 to 125V swing	100-140	
7.2.J	FIELD RHEOSTAT	NLT 115 to 125V swing	100-140	

DATE 17 January 1964

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

GEEIA Ralph L. Krieger

9-72

FEDERAL ELECTRIC CORPORATION

CABLE TEST RESULTS

SITE TKR
24 OCTOBER 1963

PAIR NO.	DC INSUL.	LOOP RES. in OHMS	MURRAY TIP	MURRAY RING	AUDIO LOSS 1000 cps	AUDIO LOSS 5000 cps
1	INF.	48	32 OHMS	32 OHMS		
2	INF.	48	32 Ohms	32 OHMS	0.75db	3.2db
3	"	49	32.5 "	32.0 "		
4	"	49	32.0 "	32.0 "	0.75db	3.2db
5	"	49	32.0 "	32.5 "		
6	"	49	32.0 "	32.0 "	0.75db	3.2db
7	"	49	32.5 "	32.5 "		
8	"	48	32.0 "	32.0 "	0.75db	3.2db
9	"	49	32.0 "	32.5 "		
10	"	48	32.0 "	32.5 "	0.75db	3.2db
11	"	49	32.5 "	32.5 "		
12	"	48	32.5 "	32.0 "	0.75db	3.2db
13	"	48	32.0 "	32.0 "		
14	"	48	32.5 "	32.0 "	0.75db	3.2db
15	"	48	32.0 "	32.5 "		
16	"	49	32.5 "	33.0 "	0.75db	3.2db
17	"	48	32.5 "	32.5 "		
18	"	50	32.5 "	33.0 "	0.75db	3.2db
19	"	49	32.5 "	32.5 "		
20	"	49	32.5 "	33.0 "	0.75db	3.2db
21	"	48	32.5 "	32.5 "		
22	"	48	32.5 "	32.5 "	0.75db	3.2db
23	"	48	32.5 "	32.5 "		
24	"	49	32.5 "	32.5 "	0.75db	3.2db
25	"	48	32.0 "	32.5 "		
26	"	48	32.5 "	32.0 "	0.75db	3.2db
27	"	48	32.5 "	32.5 "		
28	"	48	32.5 "	32.5 "	0.75db	3.2db
29	"	48	33.0 "	32.5 "		
30	"	48	32.5 "	33.0 "	0.75db	3.2db
31	"	48	32.5 "	32.5 "		
32	"	48	32.5 "	32.5 "	0.75db	3.2db
v33	"	49	32.5 "	33.0 "		
34	"	48	32.5 "	32.5 "	0.75db	3.2db
35	"	48	32.5 "	32.5 "		
36	"	49	32.5 "	32.0 "	0.75db	3.2db
37	"	48	32.5 "	32.0 "		
38	"	49	32.5 "	32.5 "	0.75db	3.2db
39	"	49	32.5 "	32.0 "		
40	"	48	32.5 "	32.5 "	0.75db	3.2db

PAIR NO.	DC INSUL	LOOP RES. in OHMS	MURRAY TEST in OHMS TIP	RING	AUDIO LOSS 1000cps	5000cps
41	INF.	48	32.5	33.0	0.75db	3.2db
42	"	48	32.0	32.5	0.75db	3.2db
43	"	49	32.5	33.0	0.75db	3.2db
44	"	50	32.5	33.0	0.75db	3.2db
45	"	50	32.5	33.0	0.75db	3.2db
46	"	49	32.5	32.5	0.75db	3.2db
47	"	49	32.5	32.5	0.75db	3.2db
48	"	49	32.5	32.5	0.75db	3.2db
49	"	49	32.5	32.5	0.75db	3.2db
50	"	48	32.0	32.5	0.75db	3.2db

CABLE LENGTH 3200 FT.
CABLE SIZE 19 GAUGE DIRECT BURIAL
MURRAY TEST: EACH WIRE RESISTANCE TO GROUND
DC INSULATION: LOOP TO GROUND
DC LOOP RESISTANCE: RESISTANCE OF LOOP FROM TKR TO TERMINAL
AUDIO: ALL LOOP BASIS, i.e. PAIR 3 to 4 MEASURED AT TKR. THEREFORE ALL MEASUREMENTS ARE ONE HALF TOTAL ON ONE WAY MEASUREMENT.
X-TALK: BETTER THAN -80db SIDE TO SIDE ON LOOP BASIS.

DATE 22 Oct. 1963

TESTER

SUPERVISIOR Raymond K Lindman

QUALITY ASSURANCE Stan Randall

GEEIA Charles E Barrentine

SHEET 2 of 2

FEDERAL ELECTRIC CORPORATION

TID

BIG RALLY II PROJECT
DATA SHEET
HOT AND COLD WATER PIPE TESTS

			ACTUAL	
HOT WATER TRANSITE	EXPEDTED PSI 45	PSI.	60	Int
COLD WATER TRANSITE	EXPECTED PSI 50	PSI.	150	Int.
HOT WAREW CASING	EXPECTED PSI 15	PSI	15	Int.

DATE 11/20/63

TESTER [illegible]

SUPERVISOR [illegible]

QUALITY ASSURANCE [illegible]

10-3

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DOCUMENT CONTROL DATA - R&D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

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Federal Electric Corporation, ITT
Paramus, New Jersey

2a. REPORT SECURITY CLASSIFICATION

UNCLASSIFIED

2b. GROUP

N/A

3. REPORT TITLE

Big Rally II Communication SystemTest Data, Phase II

4. DESCRIPTIVE NOTES *(Type of report and inclusive dates)*

Vol VI

5. AUTHOR(S) *(Last name, first name, initial)*

None

6. REPORT DATE

1964

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AF19(628)-10

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c. 486L

d.

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9b. OTHER REPORT NO(S) *(Any other numbers that may be assigned this report)*

ESD TDR 64-451, Phase II, Vol VI

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486L SPO ESD
L.G. Hanscom Field, Bedford, Mass.

13. ABSTRACT

Test Procedures for MC-50 Multiplex

DD FORM 1 JAN 64 1473

Security Classification

14. KEY WORDS	LINK A ROLE	LINK A WT	LINK B ROLE	LINK B WT	LINK C ROLE	LINK C WT
Communication Systems						
Big Rally II						
Tests						
Multiplex						
Communication						
Test Equipment						
Radio Equipment						
Performance						
Data						
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