SPECIFIC STATION REQUIREMENTS FOR EL 079

This regulation establishes the procedures for station unique operations and analysis.

Distribution limited to DoD and DoD contractors only; to protect information and technical data which advance the state-of-the-art or describe new technology in an area of significant or potentially significant military application, 1 July 1987. Other requests shall be referred to HQ/DOSB.

1. Operating Concept. Normally, all operations and maintenance requirements are accomplished during the attended hours as determined by contractor management. All days are considered duty days. A complete equipment check is required at the beginning and end of the attended period.

2. Station Designator. The station designator for Equipment Location 079 is JOEY.

3. Timing Standard is WWV.

4. Routine Calibrations. Commence SP calibrations immediately after 1330Z followed by the LP CALs. Perform the LPS frequency responses at the rate of one site per day.

5. Edit tape registration numbers are 5000 through 5099.

6. Outage authorized in Volume I, is granted for Monday of each week from 1500Z through 1800Z.

7. Analysis Requirements:

a. The station is exempt from routine analysis and data reporting with the following exceptions:

(1) Transmit data reports covering periods requested by the GSOC. Include in this report all events extending into, or continuing out of, the requested period.

(2) If data request covers more than one ZULU day, a new computer function data line (BBBBBB JJJ JOEY (date) CMM PART ONE) will precede each day's data. If data are requested over an extended period of time, each data reporting period will cover 12 hours (0001 - 1200Z and 1200 - 2400Z).

b. In addition to the above requirement, maintain a continuous capability to respond to review requests. Establish analysis and reporting exercises to insure analysis proficiency of personnel.

c. Provide selected analysis periods to HQ for review to evaluate the station's analysis and reporting capability. Procedures are as follows:

(1) Analyze 1600 - 2000Z on the 15th day of each month.

(2) Prepare a message (do not transmit) using correct format as specified in Volume I, and forward with the appropriate station log. Do not complete address elements.

(3) It is not the intent of this program to limit the station's analysis and reporting exercises to 1 day a month. Accomplish analysis and reporting training on a continuing basis, and this program may be used to complement that training.

8. SPS Develocorder Presentations:

a. Primary:

TRACE	DATA	MAG
1	SZ1BP29216	2000K
2	SZ1BP31516	2000K
3	SZ1BP33716	2000K

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TRACE	DATA	MAG
4	SZ1BP36016	2000K
5	SZ1BP02216	2000K
6	SZ1BP04516	2000K
7	SZ1BP00099	2000K
8	SZ1BP15716	2000K
9	SZ1BP30314	2000K
10	SZ0AP30314	2000K
11	SZ0AP02216	2000K
12	SZ1BP21124	2000K
13	SZ1I32H	500K

b. Secondary:

TRACE	DATA	MAG
1	SZ1I19	500K
2	SZ1I13	500K
3	SZ1I10	500K
4	SZ1I16	500K
5	SZ0AP30314	2000K
6	SZ0AP02216	2000K
7	SPARE	-
8	SZ1I32M	50K
9	SZ1I32L	5K
10	SZ1I32H	500K
11	SN1I32H	500K
12	SE1I32H	500K

9. LPS Develocorder Presentation:

TRACE	DATA	MAG
1	LZ1BP3603.5	100K
2	LZ1BP0903.5	100K
3	LZ1BP1803.5	100K
4	LZ1BP2703.5	100K
5	LZ1ICH	50K*
6	LN1ICH	50K*
7	LE1ICH	50K*
8	LZ1ICL	5K*

* Normally record data from LP site C on traces 5, 6, 7 and 8. Should site C fail, substitute any operable LP site.

10. STPR Designator/Channel Identifier Cross Reference.

STPR DESIGNATOR	CHANNEL ID	INPUT SENSITIVITY
SPRW01	SZ1I01	4.88*
SPRW02	SZ1I02	4.88*
SPRW03	SZ1I03	4.88*
SPRW04	SZ1I04	4.88*
SPRW05	SZ1I05	4.88*
SPRW06	SZ1I06	4.88*
SPRW07	SZ1I07	4.88*
SPRW08	SZ1I08	4.88*
SPRW09	SZ1I09	4.88*
SPRW10	SZ1I10	4.88*
SPRW11	SZ1I11	4.88*
SPRW12	SZ1I12	4.88*
SPRW13	SZ1I13	4.88*
SPRW14	SZ1I14	4.88*
SPRW15	SZ1I15	4.88*
SPRW16	SZ1I16	4.88*
SPRW17	SZ1I17	4.88*
SPRW18	SZ1I18	4.88*
SPRW19	SZ1I19	4.88*
SPRW20	SZ1I32H	4.88*
SPRW21	SN1I32H	4.88*
SPRW22	SE1I32H	4.88*
SPRW23	SZ1I32M	.488*
SPRW24	SZ1I32L	.0488*
LPSC1Z	LZ1IA	5.7735
LPSC1N	LN1IA	5.7735
LPSC1E	LE1IA	5.7735
LPSC2Z	LZ1IB	5.7735
LPSC2N	LN1IB	5.7735

STPR DESIGNATOR	CHANNEL ID	INPUT SENSITIVITY
LPSC2E	LE1IB	5.7735
LPSC3Z	LZ1IC	5.7735
LPSC3N	LN1IC	5.7735
LPSC3E	LE1IC	5.7735
LPSC4Z	LZ1ID	5.7735
LPSC4N	LN1ID	5.7735
LPSC4E	LE1ID	5.7735
LPSC5Z	LZ1IE	5.7735
LPSC5N	LN1IE	5.7735
LPSC5E	LE1IE	5.7735
SPZ000	SZ1BP00099	N/A
SPQ360	SZ1BP36016	N/A
SPQ022	SZ1BP02216	N/A
SPQ045	SZ1BP04516	N/A
SPQ157	SZ1BP15716	N/A
SPQ292	SZ1BP29216	N/A
SPQ315	SZ1BP31516	N/A
SPQ337	SZ1BP33716	N/A
SPQ02A	SZ0AP02216	N/A
SPN30A	SZ0AP30314	N/A
SPN303	SZ1BP30314	N/A
SPY211	SZ1BP21124	N/A
LPH36Z	LZ1BP3603.5	N/A
LPH09Z	LZ1BP0903.5	N/A
LPH18Z	LZ1BP1803.5	N/A
LPH27Z	LZ1BP2703.5	N/A

* Volts peak-to-peak for 100 millimicron equivalent DF measured at the output of the SCC.

\+ Input sensitivities for the triaxial sensors are measured at the output of the SCC.

11. Channels to be transmitted to the GSOC:

CHANNEL ID	STPR DESIGNATOR
SZ1I32H	SPRW20
SN1I32H	SPRW21
SE1I32H	SPRW22
SZ1I32M	SPRW23

CHANNEL ID	STPR DESIGNATOR
SZ1I32L	SPRW24
SZ1BP00099	SPZ000
SZ1BP36016	SPQ360
SZ1BP02216	SPQ022
SZ1BP04516	SPQ045
SZ1BP15716	SPQ157
SZ1BP29216	SPQ292
SZ1BP21124	SPY211
SZ1BP31516	SPQ315
SZ1BP33716	SPQ337
SZ1I09	SPRW09
SZ1I11	SPRW11
SZ1I14	SPRW14
SZ1I17	SPRW17
LZ1BP3603.5	LPH36Z
LZ1BP0903.5	LPH09Z
LZ1BP1803.5	LPH18Z
LZ1BP2703.5	LPH27Z
LZ1IC	LPSC3Z
LN1IC	LPSC3N
LE1IC	LPSC3E
LZ1IA	LPSC1Z
LN1IA	LPSC1N
LE1IA	LPSC1E
LZ1IB	LPSC2Z
LN1IB	LPSC2N
LE1IB	LPSC2E
LZ1ID	LPSC4Z
LZ1IE	LPSC5Z

12. STPR Frequency Response Voltages and Normalizing Factors:

a. Short Period:

FREQ	STPR VOLTAGE	NORMALIZING FACTOR
1.0	1.708	1
0.5	1.708	1
0.8	1.708	1

FREQ	STPR VOLTAGE	NORMALIZING FACTOR
1.5	1.708	1
2.0	1.708	1
2.5	1.708	1
3.0	1.708	1
4.0	1.708	1

b. Long Period:

FREQ	STPR VOLTAGE	NORMALIZING FACTOR
.0400	1.053	1
.1000	5.265	.2
.0667	1.053	1
.0500	1.053	1
.0333	1.053	1
.0250	1.053	1
.0200	1.053	1

* *Reference Frequency*

NOTE: To normalize the Frequency Response, divide the return voltage of each frequency by the return voltage at the reference frequency, then multiply by the normalizing factor. The results can then be compared to the table in paragraph 13 to determine if they are within tolerances.

13. Frequency Response Parameters for TRIAX W/30237 Telemetry Amplifiers.

Frequency (Hz)	.0200	.0250	.0333	.0400	.0500	.0667	.1000
Period (Sec)	50	40	30	25	20	15	10
Minimum	1.977	1.762	1.300	1.000	.4849	.1318	.0144
Nominal	2.471	2.073	1.444	1.000	.5388	.1648	.0192
Maximum	2.965	2.384	1.588	1.000	.5927	.1978	.0240

14. Ground Motion Table.

TRIAXIAL SENSOR 30237 TELE AMP	
Period (Sec)	$\frac{1}{G_t T}$
10	.8354
11	.4854
12	.3269
13	.2385
14	.1831
15	.1457

TRIAXIAL SENSOR 30237 TELE AMP	
Period (Sec)	$\frac{1}{G_t T}$
16	.1169
17	.0962
18	.0807
19	.0688
20	.0594
21	.0545
22	.0502
23	.0464
24	.0430
25	.0400
26	.0384
27	.0370
28	.0356
29	.0344
30	.0332
31	.0328
32	.0324
33	.0321
34	.0318
35	.0315
36	.0313
37	.0312
38	.0310
39	.0309
40	.0309
41	.0309
42	.0309
43	.0309
44	.0310
45	.0311
46	.0313
47	.0315
48	.0317
49	.0320
50	.0324

15. STPR CPU Configuration Parameters:

a. CPU1:
CONFIGURATION IDENTIFICATION = Cxxxx-1HS
OPERATE1 IDENTIFICATION = OPERATE1
SITE IDENTIFICATION = 079
LP DATA AND INSTRUMENT TYPE (A,31,36) = A
NUMBER OF SHORT PERIOD ARRAY CHANNELS = 19
NUMBER OF SHORT PERIOD OTHER CHANNELS = 5
NUMBER OF LONG PERIOD ARRAY CHANNELS = 15
NUMBER OF LONG PERIOD OTHER CHANNELS = 0
NUMBER OF SHORT PERIOD PROCESSES = 12
NUMBER OF LONG PERIOD PROCESSES = 4
SHORT PERIOD FREQUENCY FILTER LENGTH = 99
LONG PERIOD FREQUENCY FILTER LENGTH = 99
AMOUNT OF SHORT PERIOD TIME DELAY REQUIRED = 0
AMOUNT OF LONG PERIOD TIME DELAY REQUIRED = 0
SP COORDINATES:
0,3.844,-5.502
1,0.0,0.0
2,2.531,1.993
3,3.147,-1.565
4,0.366,-3.091
5,-1.996,-1.859
6,-2.714,1.402
7,-0.240,3.050
8,2.314,5.211

```
9,5.151,4.057
10,5.744,0.745
11,6.132,-2.807
12,3.646,-4.351
13,0.899,-6.438
14,-1.913,-5.061
15,-4.869,-3.704
16,-5.235,-0.399
17,-5.896,2.605
18,-3.202,4.087
19,-0.892,6.271
LP COORDINATES:
0,3.844,-5.502
1,0.082,9.607,T
2,15.324,10.269,T
3,3.843,-5.519,T
4,-14.816,7.298,T
5,-2.117,23.664,T
SP FREQUENCY FILTER PARAMETERS:
50
0.0001,-.0001,-.0005,-.0011,-.0016,-.0020,-.0020,-.0017,0.0014,-.0012
-.0011,-.0013,-.0014,-.0011,-.0004,0.0007,0.0019,0.0027,0.0030,0.0029
0.0027,0.0028,0.0034,0.0043,0.0050,0.0049,0.0038,0.0017,-.0007,-.0027
-.0037,-.0041,-.0045,-.0065,-.0103,-.0162,-.0221,-.0266,-.0273,-.0254
-.0224,-.0237,-.0315,-.0481,-.0653,-.0731,-.0456,0.0324,0.2035,0.3910
0.2035,0.0324,-,0456,-.0731,-.0653,-.0481,-.0315,-.0237,-.0224,-.0254
-.0273,-.0266,-.0221,-.0162,-.0103,-.0065,-.0045,-.0041,-.0037,-.0027
-.0007,0.0017,0.0038,0.0049,0.0050,0.0043,0.0034,0.0028,0.0027,0.0029
0.0030,0.0027,0.0019,0.0007,-.0004,-.0011,-.0014,-.0013,-.0011,-.0012
-.0014,-.0017,-.0020,-.0020,-.0016,-.0011,-.0005,-.0001,-.0001
LP FREQUENCY FILTER PARAMETERS:
50
0.0020,0.0023,0.0026,0.0028,0.0028,0.0025,0.0020,0.0016,0.0013,0.0011
0.0012,0.0013,0.0012,0.0007,-.0001,-.0012,-.0023,-.0032,-.0037,-.0040
-.0040,-.0043,-.0051,-.0066,-.0084,-.0104,-.0119,-.0127,-.0126,-.0122
-.0120,-.0128,-.0148,-.0180,-.0213,-.0237,-.0239,-.0218,-.0179,-.0148
-.0143,-.0197,-.0299,-.0435,-.0515,-.0456,-.0078,0.0697,0.2150,0.3650
0.2150,0.0697,-,0078,-.0456,-.0515,-.0435,-.0299,-.0197,-.0143,-.0148
-.0179,-.0218,-.0239,-.0237,-.0213,-.0180,-.0148,-.0128,-.0120,-.0122
-.0126,-.0127,-.0119,-.0104,-.0084,-.0066,-.0051,-.0043,-.0040,-.0040
-.0037,-.0032,-.0023,-.0012,-.0001,0.0007,0.0012,0.0013,0.0012,0.0011
0.0013,0.0016,0.0020,0.0025,0.0028,0.0028,0.0026,0.0023,0.0020
SP BEAM PARAMETERS:
SPQ02A,0,22,16,A,31,0.08,1
SPN30A,0,303,14,A,31,0.08,1
SPZ000,0,0,0,B
SPQ360,0,0,16,B
SPQ022,0,22,16,B
SPQ045,0,45,16,B
SPQ157,0,157,16,B
SPY211,0,211,24,B
SPQ292,0,292,16,B
SPN303,0,303,14,B
SPQ315,0,315,16,B
SPQ337,0,337,16,B
LP BEAM PARAMETERS:
LPH36,1,0,3.5,B
LPH09,1,90,3.5,B
LPH18,1,180,3.5,B
LPH27,1,270,3.5,B
SPQ02A CONSTRAINTS:
15
0,0,0,0,0,0,0,0,0,0
0,0,0,0,0,1,0,0,0,0
0,0,0,0,0,0,0,0,0,0
0
```

```
SPN30A CONSTRAINTS:
15
0,0,0,0,0,0,0,0,0,0
0,0,0,0,0,1,0,0,0,0
0,0,0,0,0,0,0,0,0,0
0
SP PROCESSING DELAY = 100
LP PROCESSING DELAY = 58
SECONDS PER RECORD = 3
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b. CPU2:

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CONFIGURATION IDENTIFICATION = Cxxxx-2HS
OPERATE2 IDENTIFICATION = OPERATE2
SITE IDENTIFICATION = 079
LP DATA AND INSTRUMENT TYPE (A,31,36) = A
NUMBER OF SHORT PERIOD ARRAY CHANNELS = 19
NUMBER OF SHORT PERIOD OTHER CHANNELS = 5
NUMBER OF LONG PERIOD ARRAY CHANNELS = 15
NUMBER OF LONG PERIOD OTHER CHANNELS = 0
NUMBER OF SHORT PERIOD PROCESSES = 12
NUMBER OF LONG PERIOD PROCESSES = 4
NO SP CHANNELS TO BE TRANSMITTED VIA HSM = 18
NO LP CHANNELS TO BE TRANSMITTED VIA HSM = 15
NUMBER OF CONTACT SENSOR MONITORS = 1
NUMBER OF A/D CHANNEL CHANNEL MONITORS = 1
AMOUNT OF SP EDIT TIME DELAY REQUIRED = 0
AMOUNT OF LP EDIT TIME DELAY REQUIRED = 0
SP COORDINATES:
0,3.844,-5.502
1,0.0,0.0
2,2.531,1.993
3,3.147,-1.565
4,0.366,-3.091
5,-1.996,-1.859
6,-2.714,1.402
7,-0.240,3.050
8,2.314,5.211
9,5.151,4.057
10,5.744,0.745
11,6.132,-2.807
12,3.646,-4.351
13,0.899,-6.438
14,-1.913,-5.061
15,-4.869,-3.704
16,-5.235,-0.399
17,-5.896,2.605
18,-3.202,4.087
19,-0.892,6.271
LP COORDINATES:
0,3.844,-5.502
1,0.082,9.607,T
2,15.324,10.269,T
3,3.843,-5.519,T
4,-14.816,7.298,T
5,-2.117,23.664,T
SP CALIBRATION DEFAULT PARAMETERS:
0.833,1.0,25,1,133000,0.9,1.1,2.931,8
1.0,1.708
0.5,1.708
0.8,1.708
1.5,1.708
2.0,1.708
2.5,1.708
3.0,1.708
4.0,1.708
LP CALIBRATION DEFAULT PARAMETERS:
1.2156,0.04,10,1,140000,0.9,1.1,2.375,7,3
0.040,0.528
0.100,5.264
0.067,1.0528
0.050,1.0528
```

0.033,1.0528
0.025,1.0528
0.020,1.0528
SP CHANNEL CONFIGURATION FOR CALIBRATION SYSTEM:
1,1
2,1
9,1
1,2
1,3
1,4
2,2
2,3
2,4
9,2
9,3
9,4
9,5
1,5
1,6
1,7
1,8
2,5
2,6
9,6
9,7
9,8
9,6
9,6
LP CHANNEL CONFIGURATION FOR CALIBRATION SYSTEM:
5,1
5,1
5,1
5,2
5,2
5,2
9,1
9,1
9,1
2,1
2,1
2,1
5,3
5,3
5,3
SP BEAM PARAMETERS:
SPQ02A,0,22,16,A,31,0.08,1
SPN30A,0,303,14,A,31,0.08,1
SPZ000,0,0,0,B
SPQ360,0,0,16,B
SPQ022,0,22,16,B
SPQ045,0,45,16,B
SPQ157,0,157,16,B
SPY211,0,211,24,B
SPQ292,0,292,16,B
SPN303,0,303,14,B
SPQ315,0,315,16,B
SPQ337,0,337,16,B
LP BEAM PARAMETERS:
LPH36,1,0,3.5,B
LPH09,1,90,3.5,B
LPH18,1,180,3.5,B
LPH27,1,270,3.5,B
HIGH SPEED MODEM CONFIGURATION:
SPRW20,SPRW21,SPRW22,SPRW23,SPRW24,SPZ000,SPQ360,SPQ022,SPQ045,SPQ157
SPQ292,SPY211,SPQ315,SPQ337,SPRW09,SPRW11,SPRW14,SPRW17,LPH36Z,LPH09Z
LPH18Z,LPH27Z,LPSC3Z,LPSC3N,LPSC3E,LPSC1Z,LPSC1N,LPSC1E,LPSC2Z,LPSC2N
LPSC2E,LPSC4Z,LPSC4Z,LPSC5Z

RELAY INDENTIFIERS AND NORMAL STATUS FOR EACH CONTACT SENSOR MONITOR:
CNTAC1,1
IDENTIFIERS AND LIMITS FOR EACH A/D CHANNEL MONITOR:
LNPOWR,5.4,6.6
SECONDS PER RECORD = 1

OFFICIAL

SUMMARY OF CHANGES
Incorporated IMC 86-1 and 87-1. Added purpose statement. Added limited distribution statement. Deleted references to specific paragraphs in Vol I. Added TRIAX frequency response parameters and ground motion table. Added configuration parameters for CPU 1 and CPU 2.