DEPARTMENT OF THE AIR FORCE
Headquarters Air Force Technical Applications Center
Patrick AFB FL, 32925-6001

CENTER REGULATION 55-2
Volume VI
1 April 1988

Operations

SPECIFIC STATION REQUIREMENTS FOR DETACHMENT 415

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 April 1988. Other requests shall be referred to HQ/DOSB.

1. Station Designator. The station designator for Detachment 415 is CMCM. Use CHM CHCH for the three element entry and station designator on data messages. Mark CEN Form 10s, using the appropriate color, with the first two letters of the station designator.

2. Special Data Reports. Submit special data reports in accordance with Volume I.

3. Timing Standard. Navy Navigation Satellite System time.

4. Routine Calibrations. Perform SPS and LPS calibrations sequentially using the Central Terminal, commencing immediately after 0300Z. Use an amplitude factor 4 (100mu) for the SPS and an amplitude factor 2 (10u) for the LPS.

5. EDIT tape registration numbers are 5600 through 5699.

6. *Training Outage.* Outage authorized in CENR 55-2, Vol I is granted for Wednesday of each week from 0500Z through 0900Z. If mission requirements preclude using Wednesday, Thursday is your alternate day.

7. Routine Data Reporting. Reference Volume I. Report data twice daily using reporting periods of *0000-1159Z and 1200-2359Z.*

8. SPS Develocorder Presentations:

a. Primary Develocorder:

TRACE	DATA	MAG	ASN CHAN	DISP ID	SCALE	DEV SENS VOLTAGE
1	SZ2BP36013	2000K	SPDS01	SPL360	1.0	0.195
2	SZ2BP06013	2000K	SPDS02	SPL060	1.0	0.195
3	SZ2BP12013	2000K	SPDS03	SPL120	1.0	0.195
4	SZ2BP18013	2000K	SPDS04	SPL180	1.0	0.195
5	SZ2BP24013	2000K	SPDS05	SPL240	1.0	0.195
6	SZ2BP30013	2000K	SPDS06	SPL300	1.0	0.195
7	SZ2BP00099	2000K	SPDS07#	SPZ000	1.0	0.195
8	SZ2BP33713	2000K	SPDS08#	SPL337	1.0	0.195
9	SZ2BP31715	2000K	SPDS09#	SPP317	1.0	0.195
10	SZ2I76H	250K	SPDS14#	SPRW22	1.0	0.390
11	SN2I76H	250K	SPDS15#	SPRW23	1.0	0.390
12	SE2I76H	250K	SPDS16#	SPRW24	1.0	0.390
13	SZ2I76M	100K	SPDS14#	SPRW22	1.0	0.976
14	SZ2I76L	10K	SPDS14#	SPRW22	1.0*	0.976

\# Display recorded on another develocorder channel at equal or different gain.
* Change display scale factor to 10 for develocorder sensitivity checks.

b. Secondary Develocorder:

TRACE	DATA	MAG	ASN CHAN	DISP ID	SCALE	DEV SENS VOLTAGE
1	SZ2I16	500K*	SPDS10	SPRW16	1.0	0.781
2	SZ2I13	500K*	SPDS11	SPRW13	1.0	0.781
3	SZ2I10	500K*	SPDS12	SPRW10	1.0	0.781
4	SZ2I11	500K*	SPDS13	SPRW11	1.0	0.781
5	SZ2BP00099	2000K#	SPDS07	SPZ000	1.0	0.195
6	SZ2BP33713	2000K#	SPDS08	SPL337	1.0	0.195

Supersedes CENR 55-2, Vol VI, 2 August 1986 (See signature page for summary of changes.)
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OPR: DOSB (TSgt C.W. Stephens)
Approved by: Col T.H. Niquette
Editor SSgt D. M. Pless
Distribution: X

TRACE	DATA	MAG	ASN CHAN	DISP ID	SCALE	DEV SENS VOLTAGE
7	SZ2BP31715	2000K#	SPDS09	SPP317	1.0	0.195
8	SPARE	*				
9	SZ2I76M	100K#	SPDS14	SPRW22	1.0	0.976
10	SN2I76M	100K#	SPDS15	SPRW23	1.0	0.976
11	SE2I76M	100K#	SPDS16	SPRW24	1.0	0.976
12	SZ2I76L	10K#	SPDS14	SPRW22	1.0**	0.976
13	SN2I76L	10K#	SPDS15	SPRW23	1.0**	0.976
14	SE2I76L	10K#	SPDS16	SPRW24	1.0**	0.976

Display recorded on another develocorder channel at equal or different gain.
* Displays may be changed at the host station commander's discretion. Notify HQ/DOSB of any changes.
** Change display scale factor to 10 for develocorder sensitivity checks.

9. LPS Develocorder Presentation:

TRACE	DATA	MAG	ASN CHAN	DISP ID	SCALE	DEV SENS VOLTAGE
1	LZ5BP3603.5	100K	LPDS01	LPH36Z	5*	0.358
2	LZ5BP0903.5	100K	LPDS02	LPH09Z	5*	0.358
3	LZ5BP1803.5	100K	LPDS03	LPH18Z	5*	0.358
4	LZ5BP2703.5	100K	LPDS04	LPH27Z	5*	0.358
5	LZ5IA@	5K	LPDS08	LPSC11	5*	0.358
6	LZ5IA@	50K	LPDS05	LPSC11	50*	0.358
7	LN5IA@	50K	LPDS06	LPSC12	50*	0.358
8	LE5IA@	50K	LPDS07	LPSC13	50*	0.358

* Change display scale factor to 1.0 for develocorder sensitivity checks.
@ Should BBOI/LPA fail, assign another site that is within operational tolerances using the following precedence: LPF, LPB, LPE, LPC, LPD.

NOTE: LP PGain must be set to 20.0.

10. Data cross-reference lists:

INST	RTID	CT CHANNEL	DDS GAIN	STPR CH ID	STPR CGAIN	ISENSE Mu/CT	DEV ID
U01	SP01	S01	42	SPRW01	1.0	0.16	SZ2I01
U02	SP02	S02	42	SPRW02	1.0	0.16	SZ2I02
U03	SP03	S03	42	SPRW03	1.0	0.16	SZ2I03
U04	SP04	S04	42	SPRW04	1.0	0.16	SZ2I04
U05	SP05	S05	42	SPRW05	1.0	0.16	SZ2I05
U06	SP06	S06	42	SPRW06	1.0	0.16	SZ2I06
U07	SP07	S07	42	SPRW07	1.0	0.16	SZ2I07
U08	SP08	S08	42	SPRW08	1.0	0.16	SZ2I08
U09	SP09	S09	42	SPRW09	1.0	0.16	SZ2I09
U10	SP10	S10	42	SPRW10	1.0	0.16	SZ2I10
U11	SP11	S11	42	SPRW11	1.0	0.16	SZ2I11
U12	SP12	S12	42	SPRW12	1.0	0.16	SZ2I12
U13	SP13	S13	42	SPRW13	1.0	0.16	SZ2I13
U14	SP14	S14	42	SPRW14	1.0	0.16	SZ2I14
U15	SP15	S15	42	SPRW15	1.0	0.16	SZ2I15
U16	SP16	S16	42	SPRW16	1.0	0.16	SZ2I16
U17	SP17	S17	42	SPRW17	1.0	0.16	SZ2I17
U18	SP18	S18	42	SPRW18	1.0	0.16	SZ2I18
KSZ	BB01	S19	42	SPRW19	1.0	0.16	SZ2I76H
KSN	BB01	S20	42	SPRW20	1.0	0.16	SN2I76H
KSE	BB01	S21	42	SPRW21	1.0	0.16	SE2I76H
KSZ	BB01	S22	30	SPRW22	1.0	0.64	SZ2I76M
KSN	BB01	S23	30	SPRW23	1.0	0.64	SN2I76M
KSE	BB01	S24	30	SPRW24	1.0	0.64	SE2I76M
KSZ	BB01	S25	12	SPRW25	1.0	5.12	SZ2I76L
KSN	BB01	S26	12	SPRW26	1.0	5.12	SN2I76L
KSE	BB01	S27	12	SPRW27	1.0	5.12	SE2I76L
LPBZ	LP01	L01	--	LPSC21	1.0	0.167	LZ5IB
LPBN	LP01	L01	--	LPSC22	1.0	0.167	LN5IB
LPBE	LP01	L01	--	LPSC23	1.0	0.167	LE5IB
LPCZ	LP02	L02	--	LPSC31	1.0	0.167	LZ5IC
LPCN	LP02	L02	--	LPSC32	1.0	0.167	LN5IC
LPCE	LP02	L02	--	LPSC33	1.0	0.167	LE5IC
LPDZ	LP03	L03	--	LPSC41	1.0	0.167	LZ5ID
LPDN	LP03	L03	--	LPSC42	1.0	0.167	LN5ID

INST	RTID	CT CHANNEL	DDS GAIN	STPR CH ID	STPR CGAIN	ISENSE Mu/CT	DEV ID
LPDE	LP03	L03	--	LPSC43	1.0	0.167	LE5ID
LPEZ	LP04	L04	--	LPSC51	1.0	0.167	LZ5IE
LPEN	LP04	L04	--	LPSC52	1.0	0.167	LN5IE
LPEE	LP04	L04	--	LPSC53	1.0	0.167	LE5IE
LPFZ	LP05	L05	--	LPSC61	1.0	0.167	LZ5IF
LPFN	LP05	L05	--	LPSC62	1.0	0.167	LN5IF
LPFE	LP05	L05	--	LPSC63	1.0	0.167	LE5IF
LPAZ	BB01	L06	--	LPSC11	1.0	0.167	LZ5IA
LPAN	BB01	L06	--	LPSC12	1.0	0.167	LN5IA
LPAE	BB01	L06	--	LPSC13	1.0	0.167	LE5IA

11. Central Terminal Configuration Parameters:

a. General Site Configuration (Menu Selection 3):

Site ID Number	02
Number of 9600 BPS Lines	1
Number of 4800 BPS Lines	0
Number of analog channels	8
Number of 544 Boards	3
Number of SPRTs	18
Number of LPRTs	5
Number of BBRTs	1

b. RT- Specific Configuration (Menu Selection 4)

RTID	RT ADDR	PORT ADDR	C/V DELAY	TIME SLOT
SP01	1***	1	V	1
SP02	1***	1	V	2
SP03	1***	1	V	3
SP04	1***	1	V	4
SP05	1***	1	V	5
SP06	1***	5	V	1
SP07	1***	5	V	2
SP08	1***	5	V	3
SP09	1***	5	V	4
SP10	1***	5	V	5
SP11	1***	9	V	1
SP12	1***	9	V	2
SP13	1***	9	V	3
SP14	1***	9	V	4
SP15	1***	9	V	5
SP16	1***	10	V	1
SP17	1***	2	V	2
SP18	1***	6	V	3
LP01	2***	3	V	1
LP02	2***	7	V	1
LP03	2***	11	V	1
LP04	2***	4	V	2
LP05	2***	8	V	3
BB01	3***	21	V	1

*** = Specific RT serial number

c. Analog Channel Configuration (Menu Selection 5):

Analog Channel	RTID	GAIN
0		
1		
2		
3		
4	** All channels are site selectable **	
5		
6		
7		

d. First Message to TOS Contents (Menu Selection 6):

Number of SPRTs in First Message	18
Number of LPRTs in First Message	5
Number of BBRTs in First Message	1

e. 12 Bit A/D/A Channel Gain Assignments (Menu Selection 7):

CHANNEL	RTID	GAIN
S01	SP01	42
S02	SP02	42
S03	SP03	42
S04	SP04	42
S05	SP05	42
S06	SP06	42
S07	SP07	42
S08	SP08	42
S09	SP09	42
S10	SP10	42
S11	SP11	42
S12	SP12	42
S13	SP13	42
S14	SP14	42
S15	SP15	42
S16	SP16	42
S17	SP17	42
S18	SP18	42
S19	BB01SZ	42
S20	BB01SN	42
S21	BB01SE	42
S22	BB01SZ	30
S23	BB01SN	30
S24	BB01SE	30
S25	BB01SZ	12
S26	BB01SN	12
S27	BB01SE	12

f. 16 Bit LPUARTS Channel Assignments (Menu Selection 8)

CHANNEL	RTID
L01	LP01
L02	LP02
L03	LP03
L04	LP04
L05	LP05
L06	BB01

g. Hardware and Software Settings:

SP Desired Gain Setting	0.005
LP Desired Gain Setting	0.167
Seconds Datachron Set Behind Time	37.001 seconds, +/- 0.0005 seconds
Datum TCG Time Setting	Sync to actual time
FTS Receiver Settings:	Latitude:
	Longitude: *From on-site documents*
	Elevation:
FTS Filter Factor	10
Reasonableness Test	Enabled

12. STPR CPU Configuration Parameters:

a. CPU1:

```
CONFIGURATION IDENTIFICATION = Cxxxx-1LL
OPERATE1 IDENTIFICATION = OPERATE1
SITE IDENTIFICATION = 415
LP DATA AND INSTRUMENT TYPE (A,31,36) = 36
NUMBER OF SHORT PERIOD ARRAY CHANNELS = 18
NUMBER OF SHORT PERIOD OTHER CHANNELS = 9
NUMBER OF LONG PERIOD ARRAY CHANNELS = 18
NUMBER OF LONG PERIOD OTHER CHANNELS = 0
NUMBER OF SHORT PERIOD PROCESSES = 9
NUMBER OF LONG PERIOD PROCESSES = 4
SHORT PERIOD FREQUENCY FILTER LENGTH = 99
LONG PERIOD FREQUENCY FILTER LENGTH = 1
AMOUNT OF SHORT PERIOD TIME DELAY REQUIRED = 0
AMOUNT OF LONG PERIOD TIME DELAY REQUIRED = 0
```

```
SP COORDINATES:
0,0,0
1,1.314,-4.048
2,0.022,-2.509
3,3.149,-3.408
4,3.428,-6.368
5,-0.132,-6.183
6,-0.608,-4.593
7,-1.687,-2.582
8,1.195,-1.292
9,4.685,-1.455
10,5.853,-3.020
11,1.474,-9.040
12,-2.215,-5.658
13,-4.162,-3.986
14,-3.457,-2.321
15,-1.934,-0.587
16,0.000,0.000
17,1.691,0.082
18,3.859,0.450
LP COORDINATES:
0,0,0
1,0.000,0.000,C
2,-10.492,21.836,C
3,0.440,39.318,C
4,21.458,43.828,C
5,21.892,24.590,C
6,15.715,6.814,C
SP FREQUENCY FILTER PARAMETERS:
50
0.0006,0.0005,-.0002,-.0012,-.0022,-.0026,-.0024,-.0016,-.0007,-.0004
-.0007,-.0015,-.0022,-.0020,-.0009,0.0010,0.0028,0.0038,0.0036,0.0025
0.0014,0.0014,0.0027,0.0049,0.0067,0.0068,0.0046,0.0008,-.0031,-.0052
-.0046,-.0024,-.0010,-.0029,-.0095,-.0192,-.0280,-.0316,-.0276,-.0188
-.0120,-.0161,-.0354,-.0648,-.0869,-.0777,-.0174,0.0911,0.2099,0.2658
0.2099,0.0911,-.0174,-.0777,-.0869,-.0648,-.0354,-.0161,-.0120,-.0188
-.0276,-.0316,-.0280,-.0192,-.0095,-.0029,-.0010,-.0024,-.0046,-.0052
-.0031,0.0008,0.0046,0.0068,0.0067,0.0049,0.0027,0.0014,0.0014,0.0025
0.0036,0.0038,0.0028,0.0010,-.0009,-.0020,-.0022,-.0015,-.0007,-.0004
-.0007,-.0016,-.0024,-.0026,-.0022,-.0012,-.0002,0.0005,0.0006
LP FREQUENCY FILTER PARAMETERS
0
0.9999
SP BEAM PARAMETERS:
SPL360,0,000,13.0,B
SPL060,0,060,13.0,B
SPL120,0,120,13.0,B
SPL180,0,180,13.0,B
SPL240,0,240,13.0,B
SPL300,0,300,13.0,B
SPZ000,0,0,0,B
SPL337,0,337,13.0,B
SPP317,0,317,15.0,B
LP BEAM PARAMETERS:
LPH36Z,1,000,3.5,B
LPH09Z,1,090,3.5,B
LPH18Z,1,180,3.5,B
LPH27Z,1,270,3.5,B
SP PROCESSING DELAY = 80
LP PROCESSING DELAY = 12
SECONDS PER RECORD = 3
```

b. CPU2:

```
CONFIGURATION IDENTIFICATION = Cxxxx-2LL
OPERATE2 IDENTIFICATION = OPERATE2
SITE IDENTIFICATION = 415
LP DATA AND INSTRUMENT TYPE (A,31,36) = 36
NUMBER OF SHORT PERIOD ARRAY CHANNELS = 18
NUMBER OF SHORT PERIOD OTHER CHANNELS = 9
NUMBER OF LONG PERIOD ARRAY CHANNELS = 18
NUMBER OF LONG PERIOD OTHER CHANNELS = 0
NUMBER OF SHORT PERIOD PROCESSES = 9
NUMBER OF LONG PERIOD PROCESSES = 4
*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:
0,0,0
1,1.314,-4.048
2,0.022,-2.509
3,3.149,-3.408
4,3.428,-6.368
5,-0.132,-6.183
6,-0.608,-4.593
7,-1.687,-2.582
8,1.195,-1.292
9,4.685,-1.455
10,5.853,-3.020
11,1.474,-9.040
12,-2.215,-5.658
13,-4.162,-3.986
14,-3.457,-2.321
15,-1.934,-0.587
16,0.000,0.000
17,1.691,0.082
18,3.859,0.450
LP COORDINATES:
0,0,0
1,0.000,0.000,C
2,-10.492,21.836,C
3,0.440,39.318,C
4,21.458,43.828,C
5,21.892,24.590,C
6,15.715,6.814,C
SP CALIBRATION DEFAULT PARAMETERS:
0.833,1.0,25,0,030000,0.9,1.1,2.928,8
1.00,1.708
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:
.2539,0.04,10,0,030200,0.9,1.1,1.97,7,3
0.04,.2243
0.1,2.243
0.067,.2243
0.05,.2243
0.033,.2243
0.025,.2243
0.020,.2243
SP CHANNEL CONFIGURATION FOR CALIBRATION SYSTEM:
1,1
1,2
1,3
1,4
1,5
1,6
1,7
1,8
1,9
1,10
1,11
1,12
1,13
1,14
1,15
1,16
1,17
1,18
1,24
1,24
1,24
1,24
1,24
1,24
1,24
1,24
1,24
```

SP BEAM PARAMETERS:
SPL360,0,000,13.0,B
SPL060,0,060,13.0,B
SPL120,0,120,13.0,B
SPL180,0,180,13.0,B
SPL240,0,240,13.0,B
SPL300,0,300,13.0,B
SPZ000,0,0,0,B
SPL337,0,337,13.0,B
SPP317,0,317,15.0,B
LP BEAM PARAMETERS:
LPH36Z,1,000,3.5,B
LPH09Z,1,090,3.5,B
LPH18Z,1,180,3.5,B
LPH27Z,1,270,3.5,B
*RELAY IDENTIFIERS AND NORMAL STATUS FOR EACH CONTACT SENSOR MONITOR:
TEST1,1
*IDENTIFIERS AND LIMITS FOR EACH A/D CHANNEL MONITOR:
LNPOWR,5.4,6.6
SECONDS PER RECORD = 1

* Monitors may be added/modified at the station's discretion.

OFFICIAL

JAY J. JAYNES, Colonel, USAF
Commander

RICHARD E. COOK, SMSgt, USAF
Director of Administration

SUMMARY OF CHANGES
Rewrote in active voice. Changed STPR ISENSE and CGAIN, and CT DDS gain for array and high gain channels. Changed SP and LP CT gain settings. Changed LP develocorder display and channel precedence. Adjusted SP array channel develocorder sensitivity check voltages.