SECRET/H[redacted]

BIF-4W-Y00003-84
Total Pages: 42
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TO: [redacted] (b)(3)

DATE: 10 September 1984

SUBJECT: Minutes of TIM for MOD4.20 on 23 August 1984

FROM: A. R. Rhodes

A MOD4.20 technical interchange meeting was held in the STC TACA conference room at 0900 hours on 23 August 1984.

ATTENDEES

K. Borkowski	- CPAC	[redacted]	
[redacted]		A. Cole	- CPAC
C. Cunningham	- CPAC	R. Mocata	- CPAC
T. Driscoll	- CPAC	[redacted]	(b)(1) (b)(3)
N. Eberz	- TA	A. Rhodes	- CPAC
R. Foster	- GE	H. St. Cyr	- CPAC
[redacted]	- SP-7	W. Scheller	- SP-7
F. Harrison	- A-16	[redacted]	
J. McDonald	- TA	K. Soenen	- CPAC
		L. Watkins	- CPAC

The meeting opened with a review of the Action Items assigned at the 31 July 1984 MOD4.20 Preliminary Design Review meeting. Attachment 1 contains the status of all Action Items.

Attachment 2 contains the SATPAC data cards corrected as per resolution of Action Item Nos. 420-1, 420-2, and 420-3.

Attachment 3 contains the SATPAC Operations Summary corrected as per resolution of Action Item Nos. 420-4 and 420-13.

Attachment 4 contains the viewgraph used by [redacted] to describe a system "D" operation for Action Item No. 420-6.

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Attachment 5 contains a strawman format for inputting SATPAC commands to the data base in response to Action Item No. 420-7

Attachment 6 contains the viewgraphs used by [redacted] to describe a SATPAC transpond operation for Action Item 420-8.

Attachment 7 contains the viewgraphs used by [redacted] to describe the SATPAC Daily Commands Listing/tape format for Action Item Nos. 420-9, 420-10, 420-11, and 420-14. (b)(1) (b)(3)

Attachment 8 contains the viewgraphs used by [redacted] to describe the conflict resolution of SATPAC tape recorders for Action Item No. 420-12.

Attachment 9 contains a matrix of SATPAC operations vs. host station capabilities.

The format of the 'TASKIT displays for valid and deleted inputs was discussed. Attachment 10 shows the displays with column headers.

Attachment 11 contains the updated SATPAC previous test to requested test table.

The following special comment is added to the ADD and MOD data cards for 'TDEFINE.

> "When inputting the Data and Execute commands, the Data command must precede the Execute command by .2 seconds and the load order of the Data command must be one less than the Execute command"

The following action items were assigned at the TIM meeting:

ORGANIZATION	ACTION ITEM
TA	Determine if the BFE ephemeris is used when CHG is run. Response: BFE ephemeris can be used in CHG.
CPAC	Redesign the command request (CR) form to include SATPAC commands (Relay, Data, and Execute).

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There is no specific date for the resolution of the above action items.

Allen R. Rhodes

Allen Rhodes, Work Unit Manager
Project 0027

Thomas Driscoll

Thomas Driscoll, Manager
Project 0027

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DISTRIBUTION

External

M. Berrian - SP-7
F. Harrison - A-16
[redacted]
R. Hicks - VOA
[redacted]
R. Meredith - TA
D. Sera - CPIC
M. Thompson - OD-4

Internal

K. Borkowski
A. Cole
C. Cunningham
T. Driscoll
R. Mocata
A. Rhodes
H. St. Cyr
L. Watkins

(b)(1)
(b)(3)

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ATTACHMENT 1

(b)(1)
(b)(3)

ACTION ITEMS

Number	Status	Description and Resolution
420-1	Closed	ALL - classification of the special comments and field identifiers described in DPR No. 11. See Attachment 2.
420-2	Closed	ALL - classification of the data card described in DPR No. 14. See Attachment 2.
420-3	Closed	CPAC - determine if 'TUNITY can process input latitudes greater than ±80° (DPR No. 14). It was agreed that ±85° would be used. See Attachment 2.
420-4	Closed	ALL - classification of the output descriptions referenced in DPR No. 47. See Attachment 3.
420-5	Closed	ALL - use and description of station inhibits referenced in DPR No. 52. It was agreed that all load stations that are initiated by STA inhibit data cards and stored in the 'TISTAB are SATPAC station inhibit bands.
420-6	Closed	[redacted] - provide CPAC with the response to DPR No. 55. The first system "B" test of an on/off set of tests must specify system "D". If it does not, all "B" tests in the on/off set are deleted. See Attachment 4. (b)(1) (b)(3)
420-7	Closed	CPAC - provide ALL with a strawman format as to how the paired commands will be input to the data base (DPR No. 78). See Attachment 5.

Number	Status	Description and Resolution
420-8	Closed	[redacted] - provide to CPAC a strawman approach as to the use of the transpond flag on the TST data card (DPR No. 80). The transpond flag will be on the TST card. See Attachments 2 and 6.
420-9	Closed	ALL - classification of the output formats described in DPR No. 89. See Attachment 7.
420-10	Closed	ALL - classification of the output formats described in DPR No. 90. See Attachment 7.
420-11	Closed	[redacted] - provide CPAC with the tape format required for the Daily Commands Listing (DPR No. 91). It was decided that a "SECRET BYEMAN" header will be used on the SATPAC Daily Commands tape only. The SATPAC Daily Commands online listing will contain the current job headers. See Attachment 7.
420-12	Closed	[redacted] - provide to CPAC a strawman approach as to the usage of the two SATPAC tape recorders (DPR No. 95). See Attachment 8.
420-13	Closed	ALL - use and classification of the output descriptors referenced in DPR No. 102. See Attachment 3.
420-14	Closed	ALL - use and classification of the output descriptors referenced in DPR No. 103. See Attachment 7.

(b)(1)
(b)(3)

ATTACHMENT 2

(b)(1)
(b)(3)

Data Card Format Modifications

CMD DATA CARD

CMD *id com'num tim'bias seq*

Card Column	Parameter Name	Parameter Size(type)	Description
1-3	CMD	XXX(H)	Card type identifier
7	*id*	X(H)	Command type identifier N = NSPC V = VSPC P = PSPC
11-14	*com'num*	XXXX(I)	Command number NSPCs - 1 to 8 (decimal) VSPC - XXYY (octal) (0,40-77) Relay (200-3717) Paired PSPCs - 1 to 10 (decimal)
16-22	*tim'bias*	±XXXX.X	Command time bias - relative to start of test (-5400.0 to 5400.0) (b)(1) (b)(3)
78-80	*seq*	XXX(I)	Deck sequence number (1 to 999)

Special Comments:

1) XX is the octal equivalent of the 6 bit execute VSPC and YY is the octal equivalent of the 6 bit data VSPC for paired VSPCs.

2) Non-paired (relay) VSPCs will be of the form YY octal only.

3) CMD inputs will not be automatically recorded by the host recorder.

4) CMD inputs are not conflicted with INHS bands or station cones.

5) Maximum number of CMD and TST data cards which can be input per rev is 50 combined and per run is 1800 combined.

6) CMD data cards must be at least .4 seconds apart.

INHS DATA CARD

INHS *start'time [TO end'time] [DT dur] [stow]*

Parameter Name	Parameter Size(type)	Description
INHS	XXXX(H)	Card type identifier
start'time	------	SATPAC inhibit band start time (compound time field)
TO	XX(H)	End time flag
end'time	------	SATPAC inhibit band end time (compound time field)
DT	XX(H)	Duration flag
dur	XXXX.X(F)	Duration of inhibit (seconds) (0.0 - 8191.0) (b)(1) (b)(3)
stow	XXXX(H)	Array stow flag STOW = stow array at start of inhibit band; drive array to nadir at end of inhibit band blank = leave array at current position during inhibit band

Special Comments:

1) Either *end'time* or *dur* must be specified.

2) *Start'time* and *end'time* may be any valid 'TUNITY compound time.

3) If an INHS band has stow or drive to nadir commands that fall within the station cone, the inhibit band will be lengthened to include the station.

4) An INHS card must have a longer duration than the transition time between tests.

5) If an INHS band covers an entire rev, that rev will not have a PSPC 5.

6) INHS cards must be reinput for each run.

7) INHS bands that do not start within a SAT rev span will be ignored. Note: SAT revs begin 1/4 rev earlier than ascending node.

8) Maximum number of INHS data cards which can be input in a run is 10.

SAT DATA CARD

SAT *start'rev [end'rev] [memory]*

Parameter Name	Parameter Size(type)	Description
start'rev	XXXX(I)	Start rev for SATPAC processing (1 to 8191) blank = this is not a 'TSEL run. For the 'TLOAD run the processing span is the message load rev through the number of revs indicated in item 'CNONST.
end'rev	XXXX(I)	End rev for SATPAC processing (1 to 8191) blank = start rev is incremented by the nominal number of SATPAC revs ('TOMENDN).
memory	XXXXX(H)	Memory unit PMU A - assign to PPMU A PMU B - assign to PPMU B PMU D - assign to both PPMUs PMU E - assign depending on PPMU alternation on alternating revs blank - assign value stored on data base

(b)(1)
(b)(3)

Special Comment:

1) Maximum number of SAT data cards which can be input in a run is 5.

TST DATA CARD

TST *sys rev dir [seq'sel] lat lon pri [test'pri] dur bias*

[a'mode] [ops'mode] [a'flag] [a'set] [array'flag] [b'step] [b'mode]

[load] [b'charge] [b'sel] rec trans stop'flag seq

Card Column	Parameter Name	Parameter Size(type)	Description
1-3	TST	XXX(H)	Card type indentifier
5	*sys*	X(H)	System (A, B, C, D)
7-10	*rev*	XXXX(I)	Start rev (1 to 8191)
12	*dir*	X(H)	Direction of travel (A or D) A = ascending host vehicle D = descending host vehicle
14	*seq'sel*	X(H)	Test A sequence select flag N = no special S = special Must be input for tests A and D.
16-21	*lat*	±XX.XX(F)	Latitude of test point (-85.00 to 85.00 degrees)
23-29	*lon*	±XXX.XX(F)	Longitude of test point (-180.00 to 180.00 degrees)
31-32	*pri*	XX(I)	Priority (0 to 99)
34	*test'pri*	X(H)	Test priority (A or B) Must be input for tests A, B, and D
36-39	*dur*	XXXX(I)	Duration of test (0 to 6553 seconds)
41-45	*bias*	±XXXX(I)	Bias of test (-5400 to 5400 seconds) Biased from test point time

(b)(1)
(b)(3)

Card Column	Parameter Name	Parameter Size(type)	Description
47	*a'mode*	X(I)	Test A mode (1 - 4) Must be input for tests A and D
49-50	*ops'mode*	XX(I)	Test C ops mode (1 - 9) Must be input for test C
52	*a'flag*	X(H)	Test A flag D = dual M = minimum Must be input for tests A and D Must be M for test D
54	*a'set*	X(H)	Test A setting P = primary N = normal Must be input for tests A and D
56	*array'flag*	X(H)	Array to nadir flag D = do not move to nadir N = move to nadir after test completion Must be input for tests A and D
58-60	*b'step*	XXX(I)	Test B step (130 to 180) Must be input for tests B and D
63-64	*b'mode*	XX(I)	Test B mode (0 to 15) Must be input for tests B and D
66	*load*	X(H)	Load E = enabled D = disabled Must be input for tests B and D
68	*b'charge*	X(H)	Test B array charge E = enabled D = disabled Must be input for tests B and D
70	*b'sel*	X(H)	Test B sequence select flag N = normal S = special Must be input for test B and D Must be N for test D
72	*rec*	X(I)	Recorder number (0 - 2) 0 = do not record 1 = use recorder 1 2 = use recorder 2

(b)(1)
(b)(3)

Card Column	Parameter Name	Parameter Size(type)	Description
74	*trans*	X(H)	Transpond flag T = transpond N = normal
76	*stop'flag*	X(H)	Record stop option (G or S) G = recorder state to be determined by software S = recorder off after test
78-80	*seq*	XXX(I)	Deck sequence number (1 to 999)

(b)(1)
(b)(3)

Special Comments:

1) The maximum number of TST and CMD data cards which can be input per rev is 50 combined and per run is 1800 combined.

2) The *pri* option is used only for manual editing (deletions of tests). Zero is the highest priority. Lowest priority tests will be deleted first.

3) Negative *bias* results in test occurring earlier in time. Test start time is test point time plus bias. Test end time is start time plus duration.

4) System D tests that are not the first test of a testing pass are deleted.

5) Tests that cross the southern-most-latitude point will be deleted.

6) B special tests that are not preceded by a B special test in the same testing pass are deleted.

7) Tests that do not meet the minimum length requirements for the requested system will be deleted (see 'CWP for minimum length requirements).

8) *Trans* flag causes transponder on sequence to be called at start of the test and transponder off sequence to be called at the PSPC 5 of the testing pass.

TSTDEL DATA CARD

TSTDEL *start'rev [end'rev]*

Parameter Name	Parameter Size(type)	Description	
start'rev	XXXX(I)	Start rev of test to be deleted (1 to 8191)	(b)(1) (b)(3)
end'rev	XXXX(I)	End rev of test to be deleted (1 to 8191) blank = start rev is incremented by the nominal number of SATPAC revs ('TOXENDN).	

Special Comment:

1) Maximum number of TSTDEL data cards which can be input in a run is 5.

2) The TSTDEL data card need not be reinput with each run.

ATTACHMENT 3

(b)(1)
(b)(3)

SATPAC OPERATIONS SUMMARY FOR REV XXXX

OPER	TEST	DIR	START TIME	END TIME	DUR	REF TIME	ANGLE	LATITUDE	LONGITUDE
			TESTING PASS XX						
XX	X-X	X	XXXXX.X	XXXXX.X	XXXX	XXXXX.X	XX.X	±XX.XX	±XXX.XX

where:

REV	=	Rev being processed
PASS	=	Testing pass number (unique for rev)
OPER	=	Operation number (1 - 50)
TEST	=	Requested test (A-N, A-P, A-S, B-N, B-S, C-T, C-S, D-N, D-P)
DIR	=	Direction of travel of vehicle (A-ascending, D-descending)
START TIME	=	Start time of test
END TIME	=	End time of test
DUR	=	Duration of test
REF TIME	=	Reference (test point) time
ANGLE	=	Array angle, set only for moveable array tests
LATITUDE	=	Latitude of test point
LONGITUDE	=	Longitude of test point

ATTACHMENT 4

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DPR 420-6

FIRST TST VHF

CARD COLUMN

5	(SYS)	= D
47	(BND)	= 1, 2, 3 OR 4
52	(ANT)	= M
54	(PULSE FLAG)	= P OR N
56	(CAL' FLAG)	= D OR N
70	(V'SEQ)	= N

IF ABOVE FIELDS ARE NOT SET → REJECT "TST CARD"

ATTACHMENT 5

(b)(1)
(b)(3)

COMMAND INPUTS

- RTCs, NSPCs, AND PSPCs
  - INPUT IN THE NORMAL MANNER

- RELAY COMMANDS
  - INPUT AS NSPCs
  - COMMAND TYPE EQUAL RELAY

- DATA COMMANDS
  - INPUT AS 4 BIT VSPCs
  - COMMAND TYPE EQUAL DATA
  - SET RANGE HI/LOW IN NORMAL MANNER
  - FID/SID SET FOR 1 BIT ONLY

- EXECUTE COMMANDS
  - INPUT AS 4 BIT VSPCs
  - COMMAND TYPE EQUAL EXECUTE
  - SET RANGE HI/LOW THE SAME
  - SET MSB AND LSB FOR VSPC
  - SET FIDs/SIDs TO PROPER BITS

(b)(1)
(b)(3)

ATTACHMENT 6

(b)(1)
(b)(3)

SATPAC II

TRANSPOND OPERATIONS

(b)(1)
(b)(3)

TRANSPOND COMMANDING

VSPC 0041	TRANSPOND MODE (SEQ.1) LOCKS OUT TR DATA
NSPC-6 (NSPC-7)	TRANSPOND RESET (SEQ.29) TR 1 AND TR 2 STOP

(b)(1)

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SATPAC II

TRANSPOND OPERATIONS

- O PROFILE TRANSPOND FOR SELECTED CONTACT (CAP 13/CAP 14 MAN STA 3)

- O ENTER "CAP" NUMBER INTO SATPAC SOFTWARE ALONG WITH OTHER PASS EVENTS. THIS WILL ESTABLISH "TRANSPOND" AS PART OF SELECTED STATION'S CAPABILITY.

- O SATPAC SOFTWARE WILL SET TRANSPOND FLAG TO "T" IF ANY PART OF A TEST FALLS WITHIN A STATION CONE THAT HAS TRANSPOND CAPABILITY.

- O HOST SOFTWARE WILL IN SP MESSAGE CALL FOR SEQ. 45X TO BE EXECUTED PRIOR TO "TRAN" OF THOSE STATIONS PROFILED FOR TRANSPOND. (CAP 13/ CAP 14 MAN STA 3).

- O HOST SOFTWARE (SATGEN) WILL IN SFO OR SE MESSAGE CALL FOR SATPAC SEQ 1 WITH REFERENCE TO (T_O) OF "TST" AND SATPAC SEQ. 29 WITH REFERENCE TO (T_f) OF LAST TST OF POWER ON PERIOD.

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TRANSPOND FLAG

TST CARD COLUMN 74 *trans* X(H)

T = TRANSPOND

N = NORMAL

(b)(1)
(b)(3)

ATTACHMENT 7

(b)(1)
(b)(3)

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THE EXECUTED COMMAND HISTORY TAPE IS A LIST TAPE, FIXED MODE, ASCII CHARACTER MODE, 7-TRACK, 800 BPI, WITH ODD PARITY. IT IS A CARD IMAGE TAPE WITH NO CARRIAGE CONTROL CHARACTERS. THERE ARE THREE TYPES OF RECORDS ON THE EXECUTED COMMAND TAPE (ECT): HEADER RECORD, COMMAND RECORDS, AND AN END-OF-FILE RECORD. THERE WILL BE ONE TAPE DELIVERED PER DAY. EACH WILL CONTAIN, IN TIME ORDER, ALL SATPAC-II COMMANDS AND SELECTED HOST VEHICLE COMMANDS EXECUTED WITHIN A 24-HOUR PERIOD.

HEADER RECORD FORMAT

FIELD	COLUMN POSITION	DESCRIPTION	FORMAT
1	1- 6	HEADER RECORD IDENTIFIER (ALPHA)	HEADER
2	8-11	I R O N OPERATIONS NUMBER. (NUMERIC)	NNNN
3	13-14	DAY OF MONTH AT TIME OF FIRST COMMAND ON TAPE. (NUMERIC)	DD
4	15	FIELD SEPARATOR (DASH)	"-"
5	16-17	DAY OF MONTH AT TIME OF LAST COMMAND ON TAPE. (NUMERIC)	DD
6	19-21	MONTH OF DAY IN COLUMNS 16-17. (ALPHA. EG, JAN, FEB, ETC)	AAA
7	23-26	YEAR OF MONTH IN COLUMNS 19-21. (NUMERIC, REFERENCED TO 1900)	YY
8	28-40	CLASSIFICATION HEADER	SECRET/BYEMAN

COMMAND RECORD FORMAT

FIELD	COLUMN POSITION	DESCRIPTION	FORMAT
1	1- 4	RECORD NUMBER. THIS IS A ONE-UP ENTRY NUMBER FOR RECORDS ON THE TAPE	XXXX
2	6-10	PAYLOAD COMMAND. ONE ALPHA CHARACTER FOLLOWED BY FOUR OCTAL NUMBERS. WHERE: A = P FOR PROTECTED STORED PROGRAM COMMAND (PSPC). = N FOR NORMAL STORED PROGRAM COMMAND (NSPC). = V FOR VARIABLE STORED PROGRAM COMMAND (VSPC). = H FOR ANY OTHER HOST COMMAND.	ANNNN

SECRET//H/

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FIELD	COLUMN POSITION	DESCRIPTION	FORMAT
2	6-10	COMMAND (CONTINUED FROM PAGE 1) NNNN = THE OCTAL REPRESENTATION OF THE COMMAND. FOR A = P : NNNN = 0001 TO 0010 FOR A = N : NNNN = 0001 TO 0008 FOR A = V AND X LE 7 (X = OCTAL CHARACTER) NNNN = 0000 TO 0077 VSPC RELAY COMMANDS NNNN = 2X00 TO 3X17 VSPC PAIRED COMMANDS FOR A = H HOST COMMANDS (MAY BE VSPC,PSPC,OR NSPC) NNNN = 0000 TO 9999	N N N N N N N N N N N N N N N N
3	12-18	REV NUMBER AT TIME OF THE COMMAND. TO TENTHS OF A REV.	X X X X X . X
4	19	STATION IDENTIFIER. BLANK UNLESS COMMAND WAS EXECUTED WITHIN THE STATION CONE A = B(BOSS),C(COOK),G(GUAM),I(INDI),P(POGO), ETC.	A
5	21-27	SYSTEM TIME OF COMMAND EXECUTION. TO TENTHS OF A SECOND.	S S S S S . S
6	29-36	VEHICLE TIME OF COMMAND EXECUTION. TO TENTHS OF A SECOND.	V V V V V V . V
7	38-43	LATITUDE OF HOST NADIR AT EXECUTION TIME. IN HUNDREDTHS OF A DEGREE.	+/- X X . X X
8	45-51	LONGITUDE OF HOST NADIR AT EXECUTION TIME. IN HUNDREDTHS OF A DEGREE.	+/- X X X . X X
9	53-59	DATE OF COMMAND EXECUTION	D D M M M Y Y
10	61-63	SEQUENCE NUMBER OR SPM NUMBER.	N N N
11	65-67	COMMAND MESSAGE NUMBER	N N N
12	70-115	COMMAND DESCRIPTOR TEXT (MAXIMUM OF 45 CHARACTERS)	A A ..... A A

END-OF-FILE RECORD FORMAT

FIELD	COLUMN POSITION	DESCRIPTION	FORMAT
1	1- 3	END-OF-FILE INDICATOR. (ALPHA)	E O F
2	4-16	CLASSIFICATION HEADER	SECRET/BYEMAN

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22 AUGUST 84 S A T P A C I I E X E C U T E D C O M M A N D L I S T F O R M A T

C O L U M N S

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HEADER	OPS COMMAND	DAYS REV	MONTH S	YEAR SYS TIME	CLASSIFICATION VEH TIME	LAT	LONG	DATE	SEQ	MSG	DESCRIPTIVE TEXT
HEADER 1234		24-25 AUG 1985		SECRET/BYEMAN							
0001	N0001	424.3		09927.0	123456.8	+57.42	+104.55	24AUG85	0006	870	
0002	V0000	424.3		09972.0	123501.8	+54.88	+103.02	24AUG85	0009	870	SATSYS A LOW POWER +
0003	V0044	424.3		09974.0	123503.8	+54.87	+103.02	24AUG85	0009	870	SATSYS A HIGH POWER +
0004	V2100	424.3		09976.0	123505.8	+54.86	+103.01	24AUG85	0009	870	
0005	V2401	424.3		09978.0	123507.8	+54.85	+103.01	24AUG85	0009	870	
0006	V0042	424.3		09980.0	123509.8	+54.84	+103.01	24AUG85	0009	870	SATSYS B POWER +
0007	V3100	424.3		09981.0	123510.8	+54.84	+103.01	24AUG85	0009	870	
0008	V3007	424.3		09982.0	123511.8	+54.83	+103.01	24AUG85	0009	870	
0009	V3200	424.3		09983.0	123512.8	+54.83	+103.00	24AUG85	0009	870	
0010	V3400	424.3		09984.0	123513.8	+54.83	+103.00	24AUG85	0009	870	
0011	N0002	424.3		09997.6	123517.4	+54.75	+102.85	24AUG85	0027	870	
0012	V3310	424.3		09999.6	123519.4	+54.74	+102.84	24AUG85	0009	870	
0013	V2014	424.3		10016.0	123545.8	+55.64	+102.54	24AUG85	0006	870	
0014	V2310	424.3		10047.0	123576.8	+50.54	+102.35	24AUG85	0002	870	
0015	V2304	424.3		10048.0	123577.8	+50.47	+102.35	24AUG85	0002	870	
0016	P0004	424.3		10060.0	123589.8	+49.87	+102.33	24AUG85	0025	870	
0017	N0003	424.3		10090.0	123619.8	+49.40	+102.32	24AUG85	0025	870	
0018	V2411	424.3		10212.0	123741.8	+41.79	+102.12	24AUG85	0023	870	
0019	V3103	424.3		10214.0	123743.8	+41.77	+102.11	24AUG85	0023	870	
0020	V3003	424.3		10215.0	123744.8	+41.76	+102.11	24AUG85	0023	870	
0021	V3205	424.3		10216.0	123745.8	+41.75	+102.10	24AUG85	0023	870	
0022	V3410	424.3		10217.0	123746.8	+41.75	+102.10	24AUG85	0023	870	
0023	V3310	424.3		10219.6	123749.4	+41.63	+102.08	24AUG85	0023	870	
0024	V2101	424.3		10243.0	123772.8	+40.61	+101.92	24AUG85	0013	870	
0025	V0056	424.3		10249.0	123778.8	+40.28	+101.90	24AUG85	0013	870	SATSYS C POWER +
0026	V3714	424.3		10251.0	123780.8	+40.20	+101.89	24AUG85	0013	870	
0027	V0056	424.3		10253.0	123782.8	+40.13	+101.88	24AUG85	0013	870	SATSYS C POWER +
0028	V3605	424.3		10258.0	123787.8	+39.81	+101.82	24AUG85	0013	870	
0029	V3706	424.3		10259.0	123788.8	+39.80	+101.82	24AUG85	0013	870	
0030	V3715	424.3		10261.0	123790.8	+39.71	+101.80	24AUG85	0013	870	
0031	V3600	424.3		10262.0	123791.8	+39.67	+101.79	24AUG85	0013	870	
0032	V3714	424.3		10263.0	123792.8	+39.65	+101.77	24AUG85	0013	870	

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(b)(1)
(b)(3)

ATTACHMENT 8

(b)(1)
(b)(3)

Handle Via
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DPR 420-12

TAPE RECORDER USAGE SHALL BE AS INDICATED ON EACH "TST" CARD WITH THE EXCEPTION THAT A TAPE RECORDER CHANGE INDICATED AT THE START OF A TEST WHILE A "A TST" IS BEING RECORDED WILL BE HELD UNTIL THE END OF THE "A TST."

(b)(1)
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ATTACHMENT 9

(b)(1)
(b)(3)

SATPAC II OPERATIONS VS HOST STATION CAPABILITY

SATPAC II OPERATIONS	HOST STATION CAPABILITY																				
	0	3	7	9	10	11	13	14	15	LOAD SFO	LOAD SE	MAN STA 1	MAN STA 2	MAN STA 3	MAN STA 4	SHORT STA 1	SHORT STA 2	SHORT STA 3	SHORT STA 4	NEG WIDEING	14' ONLY
RTS ACTIVE	N	Y	Y	Y	Y	Y	Y	Y	Y	X	X	X	X	X	X	X	X	X	X	X	X
TR READIN IN CONE	Y	Y	Y	N	Y	N	Y	N	Y	N	X	Y	X	X	X	Y	X	X	X	X	X
XPOND IN CONE	N	N	N	N	N	N	Y	N	N	X	X	N	N	Y	X	X	X	X	X	X	X
SPC'S IN CONE	Y	Y	N	N	N	N	Y	N	N	X	N	N	N	Y	X	X	X	X	X	X	X
PALLET TR READOUT	N	N	N	Y	N	Y	N	N	N	X	X	X	Y	X	X	X	Y	X	X	X	X
SFO LOAD STATION	N	N	N	N	N	N	N	N	N	Y	X	X	X	X	X	X	X	X	X	X	X
CMD DURATION MAY BE LIMITED TO 150 SEC	N	N	N	N	N	N	N	N	N	X	X	X	X	X	X	Y	Y	Y	Y	Y	X
READ OUT 2:1 DATA ONLY	N	N	N	N	N	N	N	N	N	X	X	X	X	X	X	X	X	X	X	X	Y

SECRET//H

SECRET//H

(b)(1)
(b)(3)

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ATTACHMENT 10

(b)(1)
(b)(3)

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REV XXXX VALID INPUTS

TST CMD	SYS	REV ID	DIR	SEQSEL NO.	LAT BIAS	LON SEQ	PRI	TST PRI	DUR	BIAS	AMO	CMO	AFLG	ASET	ARRY	BSTP	BMO	LOD	BCHG	BSEL	REC	XDR	STOP	SEQ
TST	A	XXXX	X	X	±XX.XX	±XXX.XX	XX	X	XXXX	±XXXX	X		X	X	X						X	X	X	XXX
.																								
TST	B	XXXX	X		±XX.XX	±XXX.XX	XX	X	XXXX	±XXXX						XXX	XX	X	X	X	X	X	X	XXX
.																								
TST	C	XXXX	X		±XX.XX	±XXX.XX	XX		XXXX	±XXXX		XX									X	X	X	XXX
.																								
TST	D	XXXX	X	X	±XX.XX	±XXX.XX	XX	X	XXXX	±XXXX	X		X	X	X	XXX	XX	X	X		X	X	X	XXX
.																								
CMD		X		XXXX	±XXXX.X	XXX																		
CMD		X		XXXX	±XXXX.X	XXX																		
.																								

'TASKIT Output Display (1 Of 3)

(b)(1)

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The above format is used for VALID INPUTS and DELETED INPUTS displays.

TST DATA CARD DISPLAY

Parameter Name	Description
TST	Card type identifier
SYS	System
REV	Start rev (1 to 8191)
DIR	Direction of travel (A or D)
SEQSEL	Test A sequence select flag (N or S)
LAT	Latitude of test point (-85.00° to 85.00°)
LON	Longitude of test point (-180.00° to 180.00°)
PRI	Priority (0 to 99)
TST PRI	Test priority (A or B)
DUR	Duration of test (0 to 5400 seconds)
BIAS	Bias of test (-5400 to 5400 seconds)
AMO	Test A mode (1 - 4)
CMO	Test C ops mode (1 - 9)
AFLG	Test A flag (D or M)
ASET	Test A setting (P or N)
ARRY	Array to nadir flag (D or N)
BSTP	Test B step (130 to 180)
BMO	Test B mode (0 to 15)
LOD	Load enable/disable (E or D)
BCHG	Test B array charge (E or D)
BSEL	Test B select flag (N or S)
REC	Recorder number (0 - 2)
XDR	Transpond flag (T or N)
STOP	Record stop option (G or S)
SEQ	Deck sequence number (1 to 999)

Special Comment: See TST data card for detailed description of card fields.

'TASKIT Output Display (2 of 3)

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CMD DATA CARD DISPLAY

Parameter Name	Description
CMD	Card type identifier
ID	Command type identifier (N, V, or P)
NO.	Command number
BIAS	Command time bias - relative to start of test (-5400.0 to 5400.0)
SEQ	Deck sequence number (1 to 999)

Special Comment: See CMD data card for detailed description of card fields.

'TASKIT Output Display (3 of 3)

(b)(1)

(b)(1)
(b)(3)

ATTACHMENT 11

SECRET/H/

Present Configuration	Requested Configuration	Sequence Number	SATPAC TR on Bias	Cal Flag	Sequence Start Bias	Sequence End Bias
All Off	A+ Normal	2	-15.0	1	-50.0	-12.0
All Off	A+ Pulse	3	- 2.0	0	-36.0	-30.0
All Off	D+(w/A+ Normal)	8	-15.0	1	-50.0	- 0.4
All Off	D+(w/A+ Pulse)	9	- 2.4	0	-34.0	- 0.4
All Off	C+ (Search)	10	- 3.0	0	-50.0	+ 3.0
All Off	C+ (Track)	11	- 5.0	0	-50.0	+ 7.0
All Off	A+ Special	32	TBD	0	TBD	TBD
A+ Normal	A+ Normal (Band Change)	4	-15.0	1	-43.0	-12.0
A+ Normal	A+ Pulse	5	- 2.0	0	-30.0	-28.0
A+ Normal	A+ Special	32	TBD	0	TBD	TBD
A+ Normal	B+	12	- 2.4	0	-22.0	- 0.4
A+ Normal	C+ (Search)	21	- 3.0	0	-31.0	+ 3.0
A+ Normal	C+ (Track)	22	- 5.0	0	-33.0	+ 7.0
A+ Pulse	A+ Normal	7	-15.0	1	-43.0	-12.0
A+ Pulse	A+ Pulse (Band Change)	5	- 2.0	0	-30.0	-28.0
A+ Pulse	A+ Special	32	TBD	0	TBD	TBD
A+ Pulse	B+	12	- 2.4	0	-22.0	- 0.4
A+ Pulse	C+ (Search)	21	- 3.0	0	-31.0	+ 3.0
A+ Pulse	C+ (Track)	22	- 5.0	0	-33.0	+ 7.0

Handle Via
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(b)(1)
(b)(3)

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Present Configuration	Requested Configuration	Sequence Number	SATPAC TR on Bias	Cal Flag	Sequence Start Bias	Sequence End Bias
B+(A+ Normal)	A+ Normal	4(16)	-15.0	1	-43.0	-12.0
	(Band Change)					
B+(A+ Pulse)	A+ Pulse	5	- 2.0	0	-30.0	-28.0
	(Band Change)					
B+(A+ Normal)	A+ Pulse	5	- 2.0	0	-30.0	-28.0
B+(A+ Pulse)	A+ Normal	7	-15.0	1	-43.0	-12.0
B+(A+ Normal)	A+ Special	32	TBD	0	TBD	TBD
B+(A+ Pulse)	A+ Special	32	TBD	0	TBD	TBD
B+(A+ Normal)	B+ Special	24(16)	- 2.0	0	- 0.4	+ 1.0
B+(A+ Pulse)	B+ Special	24(16)	- 2.0	0	- 0.4	+ 1.0
B+(A+ Normal)	B+ Normal	23	- 2.4	0	- 7.0	- 0.4
B+(A+ Pulse)	B+ Normal	23	- 2.4	0	- 7.0	- 0.4
B+(A+ Normal)	C+ Search	13	- 3.0	0	-31.0	+ 3.0
B+(A+ Pulse)	C+ Track	13	- 3.0	0	-31.0	+ 3.0
B+(A+ Normal)	C+ Search	14	- 5.0	0	-33.0	+ 7.0
B+(A+ Pulse)	C+ Track	14	- 5.0	0	-33.0	+ 7.0
C+	A+ Normal	17(16)	-15.0	1	-45.0	-12.0
C+	A+ Pulse	18	- 2.0	0	-34.0	-30.0
C+	A+ Special	32	TBD	0	TBD	TBD
C+	B+ Normal	23	- 2.4	0	- 7.0	- 0.4
C+	B+ Special	24	- 2.0	0	- 0.4	+ 1.0
C+	C+	15(16)	- 3.0	0	- 3.0	+ 6.0

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