





(1)	55	DECLARATIONS
(1)	106	CONDITION TABLES
(1)	145	TM SETUP, TM CLEANUP
(1)	236	CONDITION SUBROUTINES - SETUP AND CLEANUP
(1)	329	FORM CONDS
(1)	422	VERIFY
(1)	534	VFY_CLEANUP

```
0000 1 .TITLE SATSSS40 SATS SYSTEM SERVICE TESTS $WAKE (SUCC S.C.)
0000 2 .IDENT 'V04-000'
0000 3
0000 4
0000 5 :*****
0000 6 :*
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0000 25 :*
0000 26 :*****
0000 27 :
0000 28
0000 29 :++
0000 30 : FACILITY: SYSTST (SATS SYSTEM SERVICE TESTS)
0000 31
0000 32 : ABSTRACT:
0000 33
0000 34 : THIS MODULE CONTAINS SUBROUTINES WHICH, WHEN LINKED
0000 35 : WITH SUCCOMMON.OBJ, FORM TEST MODULE SATSSS40 TO TEST SUCCESSFUL
0000 36 : OPERATION OF THE $WAKE SYSTEM SERVICE. THE SERVICE IS INVOKED
0000 37 : UNDER VARIOUS INPUT CONDITIONS WITH VARYING INPUT PARAMETERS. ONLY
0000 38 : SUCCESSFUL STATUS CODES ARE EXPECTED IN THIS TEST MODULE. CORRECT
0000 39 : OPERATION OF THE SERVICE FOR EACH OF ITS ISSUANCES IS VERIFIED BY
0000 40 : CHECKING FOR AN SSS NORMAL STATUS CODE, EXPECTED RETURN ARGUMENTS
0000 41 : AND EXPECTED FUNCTIONALITY PERFORMED.
0000 42
0000 43 : ENVIRONMENT: USER MODE IMAGE; NEEDS CMKRNL PRIVILEGE,
0000 44 : DYNAMICALLY ACQUIRES OTHER PRIVILEGES, AS NEEDED.
0000 45
0000 46 : AUTHOR: THOMAS L. CAFARELLA, CREATION DATE: OCT, 1977
0000 47
0000 48 : MODIFIED BY:
0000 49
0000 50 : VERSION 1.5 : 25-MAY-79
0000 51 : 01 LDJ 10/11/79 Fixed bug caused by DIB$K_LENGTH change ACG052.RNO mem
0000 52
0000 53 :--
```

```
0000 55      .SBTTL  DECLARATIONS
0000 56      :
0000 57      : INCLUDE FILES:
0000 58      :
0000 59      $PRVDEF      ; PRIVILEGE BIT DEFINITIONS
0000 60      $PHDDEF      ; PROCESS HEADER OFFSETS
0000 61      $PQLDEF      ; PROCESS QUOTA CODES
0000 62      $PCBDEF      ; PCB LABELS
0000 63      $DIBDEF      ; DEVICE INFO BLOCK OFFSETS
0000 64      :
0000 65      : MACROS:
0000 66      :
0000 67      :
0000 68      : EQUATED SYMBOLS:
0000 69      :
0000 70      :
0000 71      : OWN STORAGE:
0000 72      :
```



00000000	0000	91	.PSECT	RWDATA, RD, WRT, NOEXE, LONG	
00000008	0000	92	PRIVMASK:	.BLKQ 1	: ADDR OF PRIVILEGE MASK (IN PHD)
0000000C	0008	93	MBXCHAN:	.BLKL 1	: CHAN. NO. FOR MAILBOX FOR CREATED PROCESS
	000C	94	MBXCHANINFO:		: CHANNEL INFO RETURNED BY GETCHN
00000074	000C	95		.LONG DIB\$K_LENGTH	
00000014	0010	96		.ADDRESS +4	
00000088	0014	97		.BLKB DIB\$K_LENGTH	
0000008C	0088	98	MBXUNIT:	.BLKL 1	: SAVE AREA FOR MAILBOX UNIT NUMBER
	008C	99	MBXBUFF:	STRING 0,120	: MAILBOX BUFFER FOR CREATED PROCESS
00000110	010C	100	DEST PIDADR:	.BLKL 1	: DESTINATION PID ADDR, WRITTEN BY S.S.
00000114	0110	101	ZEROPID:	.BLKL 1	: PID OF ZEROES
00000000	0114	102	SELPID:	.LONG 0	: PID OF THIS PROCESS
0000011C	0118	103	CREPID:	.BLKL 1	: PID OF CREATED PROCESS
00000120	011C	104	SUBJPID:	.BLKL 1	: PID OF SUBJECT PROCESS (SELF OR OTHER)

SA  
SY  
SY  
SY  
TE  
TE  
TE  
TE  
TM  
TM  
TM  
VE  
VE  
VF  
VF  
WR  
WR  
ZE

PS  
--

SA  
RO  
RW  
SA

Ph  
--  
In  
Co  
Pa  
Sy  
Pa  
Sy  
Ps  
Cr  
As

Th  
46  
Th  
53  
46

```

0120 106 .SBTTL CONDITION TABLES
0120 107 :
0120 108 :
0120 109 :
0120 110 :
0120 111 :
0120 112 :
0120 113 :
0120 114 :
00000000' 0168 115 .ADDRESS 0
0000011C' 016F 116 .ADDRESS SUBJPID
00000110' 0173 117 .ADDRESS ZEROPID
0177 118 :
0177 119 :
0177 120 :
0177 121 :
0177 122 :
00000051' 01AD 123 .ADDRESS SUBJPRN
00000000' 01B1 124 .ADDRESS 0
01B5 125 :
01B5 126 :
01B5 127 :
01B5 128 :
01B5 129 :
01B5 130 :
01B5 131 :
01B5 132 :
FFFFFFF 024A 133 .LONG ^XXXXXXXXX : PSEUDO-UIC
00000000 024E 134 .LONG 0 : PSEUDO-UIC
00000256 0252 135 .BLKL 1 : UIC
0000025A 0256 136 .BLKL 1 : UIC
0000025E 025A 137 .BLKL 1 : UIC
025E 138 :
025E 139 :
025F 140 :
025F 141 :
0260 142 :
00000000 0260 143 .PSECT SATSSS40,RD,WRT,EXE

```

\*\*\*\*\* CONDITION TABLES FOR WAKE SYSTEM SERVICE \*\*\*\*\*

COND 1,NOTARG,<PID ADDRESS>,-  
<NOT SPECIFIED>,-  
<SPECIFIED, NON-ZERO>,-  
<SPECIFIED, ZERO>,-

COND 2,NOTARG,<PROCESS NAME ADDRESS>,-  
<SPECIFIED>,-  
<NOT SPECIFIED>,-

COND 3,NOTARG,<PROCESS TYPE>,-  
<SELF>,-  
<SUBPROCESS>,-  
<DETACHED, DIFFERENT GROUP>,-  
<DETACHED, SAME GROUP, SAME MEMBER>,-  
<DETACHED, SAME GROUP, DIFFERENT MEMBER>,-

COND 4,NULL

COND 5,NULL

SA  
VA  
  
Ma  
--  
S  
-S  
-S  
TO  
  
98  
  
Th  
  
MA



```

0000 145 .SBTTL TM_SETUP, TM_CLEANUP
0000 146 :++
0000 147 : FUNCTIONAL DESCRIPTION:
0000 148 :
0000 149 : TM SETUP AND TM CLEANUP ARE CALLED TO PERFORM
0000 150 : REQUIRED HOUSEKEEPING AT THE BEGINNING AND END, RESPECTIVELY, OF
0000 151 : TEST MODULE EXECUTION.
0000 152 :
0000 153 : CALLING SEQUENCE:
0000 154 :
0000 155 : BSBW TM_SETUP BSBW TM_CLEANUP
0000 156 :
0000 157 : INPUT PARAMETERS:
0000 158 :
0000 159 : NONE
0000 160 :
0000 161 : IMPLICIT INPUTS:
0000 162 :
0000 163 : NONE
0000 164 :
0000 165 : OUTPUT PARAMETERS:
0000 166 :
0000 167 : NONE
0000 168 :
0000 169 : IMPLICIT OUTPUTS:
0000 170 :
0000 171 : TM_SETUP: COND TABLE INDEX REGISTERS (R2,3,4,5,6) CLEARED;
0000 172 : ALL PRIVILEGES ACQUIRED.
0000 173 :
0000 174 : COMPLETION CODES:
0000 175 :
0000 176 : EFLAG SET TO NON-ZERO IF ERROR ENCOUNTERED.
0000 177 :
0000 178 : SIDE EFFECTS:
0000 179 :
0000 180 : SS_CHECK AND ERR_EXIT MACROS CAUSE PREMATURE EXIT
0000 181 : (VIA RSB) IF ERROR ENCOUNTERED.
0000 182 :
0000 183 :--
0000 184 :
0000 185 :
0000 186 :
0000 187 TM_SETUP::
0000 188 CLRL R2 ; INITIALIZE
0000 189 CLRL R3 ; .. CONDITION
0000 190 CLRL R4 ; .... TABLE
0000 191 CLRL R5 ; ..... INDEX
0000 192 CLRL R6 ; ..... REGISTERS
0000 193 BSBW MOD MSG PRINT ; PRINT TEST MODULE BEGIN MSG
0000 194 MOVAL TEST_MOD_SUCC,TMD_ADDR ; ASSUME END MSG WILL SHOW SUCCESS
0000 195 INSV #SUCCESS,#0,#3,MOD_MSG_CODE ; ADJUST STATUS CODE FOR SUCCESS
0000 196
0000 196 MODE TO,5$,KRNL ; KERNEL MODE TO ACCESS PHD
0000 197 MOVL @#CTL$GL_PHD,R9 ; GET PROCESS HEADER ADDRESS
0000 198 MOVAL PHD$Q_PRIVMSK(R9),PRIVMSK ; GET PRIV MASK ADDRESS
0000 199 MODE FROM,5$ ; BACK TO USER MODE
0000 200 PRIV ADD,ALL ; GET ALL PRIVILEGES

```

```

52 D4 0000
53 D4 0002
54 D4 0004
55 D4 0006
56 D4 0008
FFF3' 30 000A
00000000'EF 00000000'EF DE 0000
03 00 00000000'8F FO 0018
00000000'EF 0020
59 00000000'9F DO 0048
000000C0'EF 69 DE 004F
0056
0057

```

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0077 201 $SETPRN S TEST MOD_NAME_D ; SET PROCESS NAME
0084 202 SS_CHECK NORMAL ; CHECK STATUS CODE RETURNED FROM SETPRN
00B2 203 $WAKE S SELFPID ; GET MY PID
00C1 204 SS_CHECK NORMAL ; CHECK FOR NORMAL RETURN
00EF 205 $HTBER S ; UNDO ABOVE WAKE
00F6 206 SS_CHECK NORMAL ; CHECK FOR NORMAL RETURN
0124 207 :
0124 208 : THE FOLLOWING CODE ESTABLISHES UIC'S IN THE CONDITION 3 TABLE
0124 209 :
0124 210 MODE TO,20$,KRNL ; KERNEL MODE TO ACCESS PCB
59 00000000'9F DO 0147 211 MOVL @#SCH$GL_CURPCB,R9 ; GET CURRENT PCB ADDRESS
59 00BC C9 DO 014E 212 MOVL PCB$UIC(R9),R9 ; PICK UP UIC FROM PCB
0153 213 MODE FROM,20$ ; ... AND GET BACK TO USER MODE
0154 214 :
0154 215 : R9 NOW CONTAINS 'MY' UIC
0154 216 :
59 5A 02 9A 0154 217 MOVZBL #2,R10 ; GET COND3 TABLE INDEX NUMBER INTO A REG
59 00010000 8F C1 0157 218 ADDL3 #^X10000,R9,COND3_E[R10] ; PUT DIFF GROUP UIC INTO 3RD TABLE ELT
0000024A'EF4A 5A D6 0164 219 INCL R10 ; POINT TO 4TH COND3 TABLE ELEMENT
0000024A'EF4A 59 DO 0166 220 MOVL R9,COND3_E[R10] ; PUT MY UIC INTO TABLE
0000024A'EF4A 59 5A J6 016E 221 INCL R10 ; POINT TO 5TH COND3 TABLE ELEMENT
0000024A'EF4A 59 01 C1 0170 222 ADDL3 #1,R9,COND3_E[R10] ; PUT DIFF MEMBER UIC INTO THE TABLE
0179 223 $CREMBX_S CHAN=MBXCHAN, LOGNAM SUBJPRN, - ; GET MAILBOX FOR PROCESS
0179 224 MAXMSG=#120, PROMSK=#0, BUFQUO=#240
019E 225 SS_CHECK NORMAL ; CHECK NORMAL COMPLETION
01CC 226 $GETCHN_S CHAN=MBXCHAN, - ; GET CHAN INFO (UNIT NUMBER)
01CC 227 PRIBUF=MBXCHANINFO
01E6 228 SS_CHECK NORMAL ; CHECK NORMAL COMPLETION
0000088'EF 0000020'EF 3C 0214 229 MOVZWL MBXCHANINFO+8+DIB$W_UNIT,MBXUNIT ; SAVE MAILBOX UNIT NUMBER
05 021F 230 RSB ; RETURN TO MAIN ROUTINE
0220 231 TM_CLEANUP::
0220 232 $DELMBX_S MBXCHAN ; DELETE TERMINATION MAILBOX
FDCF' 30 022E 233 BSBW MOD_MSG_PRINT ; PRINT TEST MODULE END MSG
05 0231 234 RSB ; RETURN TO MAIN ROUTINE

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```

0232 236 .SBTTL CONDITION SUBROUTINES - SETUP AND CLEANUP
0232 237 :++
0232 238 : FUNCTIONAL DESCRIPTION:
0232 239 :
0232 240 : COND1 AND COND1 CLEANUP ARE SUBROUTINES WHICH ARE EXECUTED
0232 241 : BEFORE AND AFTER THE VERIFY SUBROUTINE, RESPECTIVELY, WHENEVER A NEW
0232 242 : CONDITION X VALUE IS SELECTED (SEE FUNCTIONAL DESCRIPTION OF SUCCOMMON
0232 243 : ROUTINE IN SUCCOMMON.MAR). ANY SETUP FUNCTION PARTICULAR TO THE
0232 244 : CONDITION X TABLE IS INCLUDED IN THE COND1 SUBROUTINE AND CLEANED
0232 245 : UP, IF NECESSARY, IN THE COND1 CLEANUP SUBROUTINE. THIS INCLUDES,
0232 246 : ESPECIALLY, CODE TO DETECT CONFLICTS AMONG CURRENT ENTRIES IN TWO
0232 247 : OR MORE CONDITION TABLES. IF A CONFLICT IS DETECTED, A NON-ZERO
0232 248 : VALUE IS STORED INTO CONFLICT, WHICH CAUSES THE CALLING ROUTINE
0232 249 : (SUCCOMMON) TO SKIP THE CURRENT ENTRY IN THE CONDITION X TABLE.
0232 250 :
0232 251 : CALLING SEQUENCE:
0232 252 :
0232 253 : BSBW COND1 BSBW COND1_CLEANUP
0232 254 : WHERE X = 1,2,3,4,5
0232 255 :
0232 256 : INPUT PARAMETERS:
0232 257 :
0232 258 : CONFLICT = 0
0232 259 :
0232 260 : IMPLICIT INPUTS:
0232 261 :
0232 262 : R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
0232 263 : FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
0232 264 :
0232 265 : OUTPUT PARAMETERS:
0232 266 :
0232 267 : CONFLICT SET TO NON-ZERO IF COND TABLE CONFLICT DETECTED.
0232 268 :
0232 269 : IMPLICIT OUTPUTS:
0232 270 :
0232 271 : R2,3,4,5,6 PRESERVED
0232 272 :
0232 273 : COMPLETION CODES:
0232 274 :
0232 275 : NONE
0232 276 :
0232 277 : SIDE EFFECTS:
0232 278 :
0232 279 : NONE
0232 280 :
0232 281 : --
0232 282 :
0232 283 :
0232 284 :
05 0232 285 COND1:: ;
0232 286 RSB ; RETURN TO MAIN ROUTINE
05 0233 287 COND1_CLEANUP:: ;
0233 288 RSB ; RETURN TO MAIN ROUTINE
05 0234 289 COND2:: ;
0234 290 RSB ; RETURN TO MAIN ROUTINE
05 0235 291 COND2_CLEANUP:: ;
0235 292 RSB ; RETURN TO MAIN ROUTINE

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0000016B'EF42 0000011C'8F D1 0236 293 COND3::
                20 13 0236 294          CMPL  #SUBJPID,COND1_E[R2] ; NON-ZERO PID SPECIFIED ?
0000C1AD'EF43 D5 0242 295          BEQLU 10$ ; YES -- PROCESS IS 'OTHER'
                07 13 0244 296          TSTL  COND2_E[R3] ; IS PROCESS NAME SPECIFIED ?
                02 54 D1 024B 297          BEQL  5$ ; NO -- SUBJECT PROCESS IS 'SELF'
                20 13 024D 298          CMPL  R4,#2 ; DOES CONDITION 3 SPECIFY DIFFERENT GROUP ?
                10 11 0250 299          BEQL 20$ ; YES -- PROCESS NAME FOR DIFF GROUP IS CONF
                11 0252 300          BRB   10$ ; NO -- MAKE SURE COND 3 SPECIFIES 'OTHER'
                0254 301 5$:
                0254 302 ;
                0254 303 ; PROCESS IS 'SELF'
                0254 304 ;
0000024A'EF44 00000000'EF D1 0254 305          CMPL  ONES,COND3_E[R4] ; DOES CONDITION 3 SPECIFY 'SELF' ?
                1B 13 0260 306          BEQLU COND3X ; YES -- THEN ALL 3 CONDIT'NS ARE CONSISTENT
                OE 11 0262 307          BRB   20$ ; NO -- INDICATE CONFLICT & GET OUT
                0264 308 10$:
                0264 309 ;
                0264 310 ; PROCESS IS 'OTHER'
                0264 311 ;
0000024A'EF44 00000000'EF D1 0264 312          CMPL  ONES,COND3_E[R4] ; DOES CONDITION 3 SPECIFY 'SELF' ?
                0B 12 0270 313          BNEQU COND3X ; NO -- THEN ALL 3 CONDITIONS ARE CONSISTENT
                0272 314 20$:
00000000'EF 00000000'EF 90 0272 315          MOVB  ONES,CONFLICT ; YES -- INDICATE CONFLICT
                027D 316 COND3X:
                05 027D 317          RSB ; RETURN TO MAIN ROUTINE
                027E 318 COND3_CLEANUP::
                05 027E 319          RSB ; RETURN TO MAIN ROUTINE
                027F 320 COND4::
                05 027F 321          RSB ; RETURN TO MAIN ROUTINE
                0280 322 COND4_CLEANUP::
                05 0280 323          RSB ; RETURN TO MAIN ROUTINE
                0281 324 COND5::
                05 0281 325          RSB ; RETURN TO MAIN ROUTINE
                0282 326 COND5_CLEANUP::
                05 0282 327          RSB ; RETURN TO MAIN ROUTINE

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0283 329 .SBTTL FORM_CONDS
0283 330 :++
0283 331 : FUNCTIONAL DESCRIPTION:
0283 332 :
0283 333 : FORM CONDS FORMATS AND PRINTS INFORMATION ABOUT
0283 334 : THE CURRENT ELEMENT IN EACH OF THE CONDITION TABLES.
0283 335 :
0283 336 : CALLING SEQUENCE:
0283 337 :
0283 338 : BSBW FORM_CONDS
0283 339 :
0283 340 : INPUT PARAMETERS:
0283 341 :
0283 342 : NONE
0283 343 :
0283 344 : IMPLICIT INPUTS:
0283 345 :
0283 346 : R2, 3, 4, 5, 6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
0283 347 : FOR COND TABLES 1, 2, 3, 4, 5, RESPECTIVELY.
0283 348 : FOR X = 1, 2, 3, 4, 5 :
0283 349 : COND_X_T - TITLE TEXT FOR CONDX TABLE
0283 350 : COND_X_TAB - ELEMENT TEXT FOR CONDX TABLE
0283 351 : COND_X_C - CONTEXT OF THE CONDX TABLE
0283 352 : COND_X_E - DATA ELEMENTS OF THE CONDX TABLE
0283 353 :
0283 354 : OUTPUT PARAMETERS:
0283 355 :
0283 356 : NONE
0283 357 :
0283 358 : IMPLICIT OUTPUTS:
0283 359 :
0283 360 : NONE
0283 361 :
0283 362 : COMPLETION CODES:
0283 363 :
0283 364 : NONE
0283 365 :
0283 366 : SIDE EFFECTS:
0283 367 :
0283 368 : NONE
0283 369 :
0283 370 : --
0283 371 :
0263 372 :
0283 373 :
0283 374 FORM_CONDS::
0283 375 $FAO_S MSG1_INP_CTL,FAO_LEN,FAO_DESC,TESTNUM
02A2 376 : FORMAT CONDITIONS HEADER MSG
02A2 377 BSBW OUTPUT_MSG : ... AND PRINT IT
14 00 91 02A5 378 CMPB #COND1_C,#NULL : IS CONDITION 1 NULL ?
03 12 02A8 379 BNEQU 10$ : NO -- CONTINUE
00BF 31 02AA 380 BRW FORM_CONDSX : YES -- SUBROUTINE IS FINISHED
02AD 381 10$:
02AD 382 MOVAL COND1_T,MSG_A : SAVE ADDRESS OF CONDITION 1 TITLE FOR FAO
02B8 383 MOVL COND1_TAB[R2],MSG_B : SAVE ADDR OF COND 1 CURR TEXT ELT FOR FAO
02C4 384 MOVB #COND1_C,MSG_CTXT : SAVE CONDITION 1 CONTEXT FOR FAO
02CB 385 MOV_VAL COND1_C,COND1_E[R2],MSG_DATA1 ; GIVE COND 1 DATA VALUE TO FAO

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00000000'EF 00000120'EF DE
00000000'EF 00000120'EF42 D0
00000000'EF 00 90

```

	FD32'	30	02CB	386	BSBW	WRITE_MSG2	: FORMAT AND WRITE CONDITION 1 MSG
14	00	91	02CE	387	CMPB	#COND2_C,#NULL	: IS CONDITION 2 NULL ?
	03	12	02D1	388	BNEQU	20\$	: NO -- CONTINUE
	0096	31	02D3	389	BRW	FORM_CONDSX	: YES -- SUBROUTINE IS FINISHED
			02D6	390			
00000000'EF	00000177'EF	DE	02D6	391	MOVAL	COND2_T,MSG_A	: SAVE ADDRESS OF CONDITION 2 TITLE FOR FAO
00000000'EF	0000018D'EF43	D0	02E1	392	MOVL	COND2_TAB[R3],MSG_B	: SAVE ADDR OF COND 2 CURR TEXT ELT FOR FAO
	00000000'EF 00	90	02ED	393	MOVB	#COND2_C,MSG_CTXT	: SAVE CONDITION 2 CONTEXT FOR FAO
			02F4	394	MOV_VAL	COND2_C,COND2_E[R3],MSG_DATA1	: GIVE COND 2 DATA VALUE TO FAO
	FD09'	30	02F4	395	BSBW	WRITE_MSG2	: FORMAT AND WRITE CONDITION 2 MSG
14	00	91	02F7	396	CMPB	#COND3_C,#NULL	: IS CONDITION 3 NULL ?
	03	12	02FA	397	BNEQU	30\$	: NO -- CONTINUE
	006D	31	02FC	398	BRW	FORM_CONDSX	: YES -- SUBROUTINE IS FINISHED
			02FF	399			
00000000'EF	000001B5'EF	DE	02FF	400	MOVAL	COND3_T,MSG_A	: SAVE ADDRESS OF CONDITION 3 TITLE FOR FAO
00000000'EF	000001C3'EF44	D0	030A	401	MOVL	COND3_TAB[R4],MSG_B	: SAVE ADDR OF COND 3 CURR TEXT ELT FOR FAO
	00000000'EF 00	90	0316	402	MOVB	#COND3_C,MSG_CTXT	: SAVE CONDITION 3 CONTEXT FOR FAO
			031D	403	MOV_VAL	COND3_C,COND3_E[R4],MSG_DATA1	: GIVE COND 3 DATA VALUE TO FAO
	FCE0'	30	031D	404	BSBW	WRITE_MSG2	: FORMAT AND WRITE CONDITION 3 MSG
	14 14	91	0320	405	CMPB	#COND4_C,#NULL	: IS CONDITION 4 NULL ?
	47	13	0323	406	BEQLU	FORM_CONDSX	: YES -- SUBROUTINE IS FINISHED
00000000'EF	0000025E'EF	DE	0325	407	MOVAL	COND4_T,MSG_A	: SAVE ADDRESS OF CONDITION 4 TITLE FOR FAO
00000000'EF	0000025E'EF45	D0	0330	408	MOVL	COND4_TAB[R5],MSG_B	: SAVE ADDR OF COND 4 CURR TEXT ELT FOR FAO
	00000000'EF 14	90	033C	409	MOVB	#COND4_C,MSG_CTXT	: SAVE CONDITION 4 CONTEXT FOR FAO
			0343	410	MOV_VAL	COND4_C,COND4_E[R5],MSG_DATA1	: GIVE COND 4 DATA VALUE TO FAO
	FCBA'	30	0343	411	BSBW	WRITE_MSG2	: FORMAT AND WRITE CONDITION 4 MSG
	14 14	91	0346	412	CMPB	#COND5_C,#NULL	: IS CONDITION 5 NULL ?
	21	13	0349	413	BEQLU	FORM_CONDSX	: YES -- SUBROUTINE IS FINISHED
00000000'EF	0000025F'EF	DE	034B	414	MOVAL	COND5_T,MSG_A	: SAVE ADDRESS OF CONDITION 5 TITLE FOR FAO
00000000'EF	0000025F'EF46	D0	0356	415	MOVL	COND5_TAB[R6],MSG_B	: SAVE ADDR OF COND 5 CURR TEXT ELT FOR FAO
	00000000'EF 14	90	036?	416	MOVB	#COND5_C,MSG_CTXT	: SAVE CONDITION 5 CONTEXT FOR FAO
			036?)	417	MOV_VAL	COND5_C,COND5_E[R6],MSG_DATA1	: GIVE COND 5 DATA VALUE TO FAO
	FC94'	30	036?)	418	BSBW	WRITE_MSG2	: FORMAT AND WRITE CONDITION 5 MSG
			036C	419	FORM_CONDSX:		
		05	036C	420	RSB		: RETURN TO CALLER

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036D 422 .SBTTL VERIFY
036D 423 :++
036D 424 : FUNCTIONAL DESCRIPTION:
036D 425 :
036D 426 : VERIFY IS CALLED ONCE FOR EACH COMBINATION OF CONDITION
036D 427 : TABLE VALUES (AS DETERMINED BY THE INDEX REGISTERS R2,3,4,5,6 FOR
036D 428 : COND TABLES 1,2,3,4,5, RESPECTIVELY). VERIFY ESTABLISHES THE CONDITIONS
036D 429 : SPECIFIED BY THE COND TABLES AND ISSUES THE SUBJECT SYSTEM SERVICE
036D 430 : (SWAKE). THEN, THE SUCCESSFUL OPERATION OF THE SERVICE IS VERIFIED
036D 431 : BY EXAMINING THE STATUS CODE RETURNED, THE VALUES FOR RETURN ARGUMENTS
036D 432 : AND THE FUNCTIONALITY PERFORMED. THE EXAMINATIONS TAKE THE FORM OF
036D 433 : COMPARISONS AGAINST EXPECTED VALUES. ANY FAILING COMPARISON CAUSES AN
036D 434 : ERR_EXIT MACRO TO BE EXECUTED (EITHER DIRECTLY, OR INDIRECTLY,
036D 435 : THROUGH THE SS_CHECK MACRO); ERR_EXIT SETS EFLAG TO NON-ZERO
036D 436 : PRINTS ERROR MESSAGES AND CAUSES AN IMMEDIATE RSB TO CALLER.
036D 437 : WHEN ERR_EXIT IS EXECUTED, FURTHER CALLS TO VERIFY ARE SUPPRESSED,
036D 438 : AND, AFTER EXECUTING CLEANUP SUBROUTINES, THE IMAGE EXITS.
036D 439 :
036D 440 : CALLING SEQUENCE:
036D 441 :
036D 442 : BSBW VERIFY
036D 443 :
036D 444 : INPUT PARAMETERS:
036D 445 :
036D 446 : NONE
036D 447 :
036D 448 : IMPLICIT INPUTS:
036D 449 :
036D 450 : R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
036D 451 : FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
036D 452 : FOR X = 1,2,3,4,5 :
036D 453 : CONDX_E - ADDRESS OF TABLE OF DATA VALUES FOR CONDX
036D 454 : TABLE. IF THE CONTEXT OF TABLE X IS A SYSTEM SERVICE
036D 455 : ARGUMENT, THE ARGUMENT NAME MAY BE USED AS A SYNONYM
036D 456 : FOR CONDX_E.
036D 457 :
036D 458 : OUTPUT PARAMETERS:
036D 459 :
036D 460 : NONE
036D 461 :
036D 462 : IMPLICIT OUTPUTS:
036D 463 :
036D 464 : VERIFY HAS NO OUTPUT. SINCE ITS PURPOSE IS TO TEST FOR ERRORS,
036D 465 : IT MERELY RETURNS TO CALLER NORMALLY AFTER THE TESTS, PROVIDING
036D 466 : ALL WERE SUCCESSFUL; IF AN ERROR IS DISCOVERED, RETURN IS VIA
036D 467 : AN ERR_EXIT OR SS_CHECK MACRO, BOTH OF WHICH DOCUMENT DETECTED
036D 468 : ERRORS.
036D 469 :
036D 470 : COMPLETION CODES:
036D 471 :
036D 472 : EFLAG SET TO NON-ZERO IF ERROR ENCOUNTERED.
036D 473 :
036D 474 : SIDE EFFECTS:
036D 475 :
036D 476 : SS_CHECK AND ERR_EXIT MACROS CAUSE PREMATURE EXIT
036D 477 : (VIA RSB) IF ERROR ENCOUNTERED.
036D 478 :
```

```

036D 479 :--
036D 480
036D 481
036D 482
036D 483 VERIFY::
00000000'EF 95 036D 484 TSTB CFLAG ; SHOULD CONDITIONS BE PRINTED ?
03 13 0373 485 BEQL 5$ ; NO -- CONTINUE
FF0B 30 0375 486 BSBW FORM_CONDS ; YES -- FMT & PRINT ALL CONDS FOR THIS T.C.
0000011C'EF 00000114'EF D0 0378 487 5$:
00000110'EF D4 0378 488 MOVL SELFPIID,SUBJPID ; ASSUME THE SUBJECT PID IS SELF
0000024A'EF44 00000000'EF D1 0383 489 CLRL ZEROPID ; CLEAR ZERO PID
03 12 0389 490 CMPL ONES,COND3_E[R4] ; IS PROCESS FOR THIS TEST CASE SELF ?
0074 31 0395 491 BNEQU 7$ ; NO -- CONTINUE
0397 492 BRW 10$ ; YES -- DON'T CREATE A PROCESS
039A 493 7$:
039A 494 $CREPRC_S PIDADR=CREPID, PRCNAM=SUBJPRN, -
039A 495 UIC=COND3_E[R4], IMAGE=IMAGNAM, -
039A 496 QUOTA=QUOTALIST,MBXUNT=MBXUNIT
03D5 497 ; CREATE THE SUBJECT PROCESS
03D5 498 SS CHECK NORMAL ; ... AND MAKE SURE IT CREATED OK
0000011C'EF 00000118'EF D0 0403 499 MOVL CREPID,SUBJPID ; MAKE THE SUBJECT PID = THE ONE JUST CREATED
040E 500 10$:
0000010C'EF 0000016B'EF42 D0 040E 501 MOVL COND1_E[P2],DEST_PIDADR ; GET PID ADDRESS OUT OF TABLE
59 000001AD'EF43 D0 041A 502 MOVL COND2_E[R3],R9 ; PRCNAM ADDR INTO REG FOR INDIRECT REF'RNCE
0422 503 :
0422 504 : ***** SYSTEM SERVICE CALL WHICH IS THE SUBJECT OF THIS TEST CASE *****
0422 505 :
0422 506 $WAKE_S PIDADR=@DEST_PIDADR, PRCNAM=(R9)
00000000'8F 50 D1 0431 507 CMPL RO,#SS$ _NORMAL ; CODE RECEIVED = CODE EXPECTED ?
5F 13 0438 508 BEQLU 18$ ; YES -- CONTINUE
00000000'EF 00000000'8F D0 043A 509 MOVL #SS$ _NORMAL,EXPV ; NO -- LOAD UP EXPECTED AND
00000000'EF 50 D0 0445 510 MOVL RO,RECV ; ... RECEIVED VALUES, THEN EXIT
044C 511 ERR_EXIT LONG,<INCORRECT STATUS CODE RETURNED FROM WAKE>
0499 512 18$:
0000010C'EF D5 0499 513 TSTL DEST_PIDADR ; PID RETURNED BY WAKE ?
66 13 049F 514 BEQL 20$ ; NO -- KEEP GOING
0000010C'FF 0000011C'EF D1 04A1 515 CMPL SUBJPID,@DEST_PIDADR ; YES -- IS IT THE CORRECT ONE ?
59 13 04AC 516 BEQL 20$ ; YES -- CONTINUE
0C000000'EF 0000011C'EF D0 04AE 517 MOVL SUBJPID,EXPV ; NO --LOAD UP EXPECTED AND
00000000'EF 0000010C'FF D0 04B9 518 MOVL @DEST_PIDADR,RECV ; ... RECEIVED VALUES, THEN EXIT
04C4 519 ERR_EXIT LONG,<INCORRECT PID RETURNED BY WAKE>
0507 520 20$:
0000011C'EF 00000118'EF D1 0507 521 CMPL CREPID,SUBJPID ; WAS A PROCESS CREATED ?
37 13 0512 522 BEQLU 30$ ; YES -- GO WAIT FOR IT TO COMPLETE
0514 523 $HIBER_S ; NO -- OFFSET SUBJECT WAKE WITH HIBER
051B 524 SS CHECK NORMAL ; CHECK FOR NORMAL RETURN
57 11 0549 525 BRB VERIFYX ; ... AND GO EXIT
054B 526 30$:
054B 527 $QIOW_S CHAN=MBXCHAN, FUNC=#IOS READVBLK, -
054B 528 P1=MBXBUFF+8, P2=MBXBUFF
0574 529 ; WAIT FOR CREATED PROCESS TO SEND MAIL
0574 530 SS_CHECK NORMAL ; CHECK FOR NORMAL STATUS CODE
05A2 531 VERIFYX:
05 05A2 532 RSB ; RETURN TO CALLER

```



```

05A3 534 .SBTTL VFY_CLEANUP
05A3 535 :++
05A3 536 : FUNCTIONAL DESCRIPTION:
05A3 537 :
05A3 538 : VFY_CLEANUP EXECUTES SYSTEM SERVICES TO UNDO THE
05A3 539 : EFFECT OF THOSE ISSUED IN THE VERIFY SUBROUTINE. VFY_CLEANUP MUST
05A3 540 : ASSUME THAT VERIFY MAY NOT HAVE EXECUTED IN ITS ENTIRETY (IF AN
05A3 541 : ERROR IS FOUND). ALSO, VFY_CLEANUP MAY ISSUE SS CHECK OR ERR_EXIT
05A3 542 : ONLY AFTER PERFORMING ALL OF ITS CLEANUP OPERATIONS; THIS IS REQUIRED
05A3 543 : IN THE EVENT THAT VFY_CLEANUP IS CALLED DURING ERROR PROCESSING,
05A3 544 : WHEN PERFORMING THE REQUIRED CLEANUP IS MORE IMPORTANT THAN
05A3 545 : POSSIBLY DISCOVERING A SECOND ERROR.
05A3 546 :
05A3 547 : CALLING SEQUENCE:
05A3 548 :
05A3 549 : BSBW VFY_CLEANUP
05A3 550 :
05A3 551 : INPUT PARAMETERS:
05A3 552 :
05A3 553 : NONE
05A3 554 :
05A3 555 : IMPLICIT INPUTS:
05A3 556 :
05A3 557 : R2,3,4,5,6 CONTAIN CURRENT CONDITION TABLE INDEX VALUES
05A3 558 : FOR COND TABLES 1,2,3,4,5, RESPECTIVELY.
05A3 559 : FOR X = 1,2,3,4,5 :
05A3 560 : CONDX_E - ADDRESS OF TABLE OF DATA VALUES FOR CONDX
05A3 561 : TABLE. IF THE CONTEXT OF TABLE X IS A SYSTEM SERVICE
05A3 562 : ARGUMENT, THE ARGUMENT NAME MAY BE USED AS A SYNONYM
05A3 563 : FOR CONDX_E.
05A3 564 :
05A3 565 : OUTPUT PARAMETERS:
05A3 566 :
05A3 567 : NONE
05A3 568 :
05A3 569 : IMPLICIT OUTPUTS:
05A3 570 :
05A3 571 : NONE
05A3 572 :
05A3 573 : COMPLETION CODES:
05A3 574 :
05A3 575 : EFLAG SET TO NON-ZERO IF ERROR ENCOUNTERED.
05A3 576 :
05A3 577 : SIDE EFFECTS:
05A3 578 :
05A3 579 : SS_CHECK AND ERR_EXIT MACROS CAUSE PREMATURE EXIT
05A3 580 : (VIA RSB) IF ERROR ENCOUNTERED.
05A3 581 :
05A3 582 : --
05A3 583 :
05A3 584 :
05A3 585 :
05A3 586 VFY_CLEANUP::
05A3 587 CMPL CREPID,SUBJPID : WAS A PROCESS CREATED FOR THIS TEST CASE ?
05AE 588 BNEQU VFY_CLEANUPX : NO -- JUST EXIT
05B0 589 $DELPRC_S SOB JPID : YES -- DELETE IT
05BF 590 VFY_CLEANUPX:

```

0000011C'EF 00000118'EF D1  
OF 12

SATSSS40  
V04-000

SATS SYSTEM SERVICE TESTS \$WAKE (SUCC S 16-SEP-1984 00:53:00 VAX/VMS Macro V04-00  
VFY\_CLEANUP 5-SEP-1984 04:31:09 [UETPSY.SRC]SATSSS40.MAR;1

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05 05BF 591 RSB  
05CO 592 .END

; RETURN TO CALLER

SSSS	= 000004CE	R	04	DIBSW_UNIT	= 0000000C		
SSSCHARS	= 0000001E			EFLAG	*****	X	04
SSSCHARS1	= 00000004			EXPV	*****	X	04
SSSCHARS2	= 0000000A			FAO_DESC	*****	X	04
SSSCHARS3	= 00000019			FAO_LEN	*****	X	04
SSSCHARS4	= 00000021			FORM_CONDS	00000283	RG	04
SSSCHARS5	= 00000026			FORM_CONDSX	0000036C	R	04
SSSCOND_A	= 00000004			IMAGRAM	00000065	R	02
SSSTRINGS	= 00000001			IOS_READVBLK	*****	X	04
SSSTRINGS2	= 00000005			LONG	= 00000004	G	
SST1	= 00000001			MBXBUFF	0000008C	R	03
SST2	= 0000C004			MBXCHAN	00000008	R	03
BYTE	= 00000001	G		MBXCHANINFO	0000000C	R	03
CFLAG	*****	X	04	MBXUNIT	00000C88	R	03
CHMRTN	*****	X	04	MOD_MSG_CODE	*****	X	04
CHM CONT	*****	X	04	MOD_MSG_PRINT	*****	X	04
COMP_SC	*****	X	04	MSGT_INP_CTL	00000019	R	02
COND1	= 00000232	RG	04	MSG3_ERR_CTL	00000039	RG	02
COND1_C	= 00000000			MSG_A	*****	X	04
COND1_CLEANUP	= 00000233	RG	04	MSG_B	*****	X	04
COND1_E	= 0000016B	R	03	MSG_CTXT	*****	X	04
COND1_H	= 0000012C	RG	03	NOTARG	= 00000000	G	
COND1_T	= 00000120	R	03	NULL	= 00000014	G	
COND1_TAB	= 0000012D	R	03	ONES	*****	X	04
COND2	= 00000234	RG	04	OUTPUT_MSG	*****	X	04
COND2_C	= 00000000			PCBSL_OIC	= 000000BC		
COND2_CLEANUP	= 00000235	RG	04	PCV	*****	X	04
COND2_E	= 000001AD	R	03	PHDSQ_PRIVMSK	= 00000000		
COND2_H	= 0000018C	RG	03	PQLS_BYTLM	= 00000003		
COND2_T	= 00000177	R	03	PQLS_CPULM	= 00000004		
COND2_TAB	= 0000018D	R	03	PQLS_FILLM	= 00000006		
COND3	= 00000236	RG	04	PQLS_LISTEND	= 00000000		
COND3X	= 0000027D	R	04	PQLS_PGFLQUOTA	= 00000007		
COND3_C	= 00000000			PQLS_PRCLM	= 00000008		
COND3_CLEANUP	= 0000027E	RG	04	PQLS_TQELM	= 00000009		
COND3_E	= 0000024A	R	03	PRIVMASK	= 00000000	R	03
COND3_H	= 000001C2	RG	03	PRIV_ARGS	= 00000002		
COND3_T	= 000001B5	R	03	PROCESS_ERR	*****	X	04
COND3_TAB	= 000001C3	R	03	QUAD	= 00000008	G	
COND4	= 0000027F	RG	04	QUOTALIST	00000084	R	02
COND4_C	= 00000014			RCV	*****	X	04
COND4_CLEANUP	= 00000280	RG	04	REST_REGS	*****	X	04
COND4_H	= 0000025E	RG	03	SAVE_REGS	*****	X	04
COND4_T	= 0000025E	R	03	SCH\$GL_CURPCB	*****	X	04
COND4_TAB	= 0000025E	R	03	SELPID	00000114	R	03
COND5	= 00000281	RG	04	SS\$ NORMAL	*****	X	04
COND5_C	= 00000014			SUBJPID	0000011C	R	03
COND5_CLEANUP	= 00000282	RG	04	SUBJPRN	00000051	R	02
COND5_H	= 0000025F	RG	03	SUCCESS	*****	X	04
COND5_T	= 0000025F	R	03	SYSSCMKRN	*****	GX	04
COND5_TAB	= 0000025F	R	03	SYSSCREMBX	*****	GX	04
CONFLICT	*****	X	04	SYSSCREPRC	*****	GX	04
CREPID	= 00000118	R	03	SYSSDELMBX	*****	GX	04
CTL\$GL_PHD	*****	X	04	SYSSDELPRC	*****	GX	04
DESC	= 00000010	G		SYSSFAO	*****	X	04
DEST_PIDADR	= 0000010C	R	03	SYSSGETCHN	*****	GX	04
DIB\$R_LENGTH	= 00000074			SYSSHIBER	*****	GX	04

SATSSS40  
Symbol table

SATS SYSTEM SERVICE TESTS SWAKE (SUCC S 16-SEP-1984 00:53:00 VAX/VMS Macro V04-00  
5-SEP-1984 04:31:09 [UETPSY.SRC]SATSSS40.MAR;1

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SYSSQIOW      ***** GX 04
SYSSSETPRN    ***** GX 04
SYSSSETPRV    ***** GX 04
SYSSWAKE      ***** GX 04
TESTNUM       ***** X  04
TEST_MOD_NAME 00000000 RG 02
TEST_MOD_NAME_D 00000009 R  02
TEST_MOD_SUCC ***** X  04
TMD_ADDR      ***** X  04
TM_CLEANUP    00000220 RG 04
TM_SETUP      00000000 RG 04
VERIFY        0000036D RG 04
VERIFYX       000005A2 R  04
VFY_CLEANUP   000005A3 RG 04
VFY_CLEANUPX  000005BF R  04
WORD          = 00000002 G
WRITE MSG2    ***** X  04
ZEROPID       00000110 R  03
  
```

-----  
! Psect synopsis !  
-----

PSECT name	Allocation	PSECT No.	Attributes
. ABS	00000000 ( 0.)	00 ( 0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
\$ABSS	00000000 ( 0.)	01 ( 1.)	NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE
RODATA	000000A7 ( 167.)	02 ( 2.)	NOPIC USR CON REL LCL NOSHR NOEXE RD NOWRT NOVEC LONG
RWDATA	00000260 ( 608.)	03 ( 3.)	NOPIC USR CON REL LCL NOSHR NOEXE RD WRT NOVEC LONG
SATSSS40	000005C0 ( 1472.)	04 ( 4.)	NOPIC USR CON REL LCL NOSHR EXE RD WRT NOVEC BYTE

-----  
! Performance indicators !  
-----

Phase	Page faults	CPU Time	Elapsed Time
Initialization	29	00:00:00.06	00:00:00.33
Command processing	107	00:00:00.68	00:00:02.45
Pass 1	295	00:00:08.90	00:00:15.63
Symbol table sort	0	00:00:00.75	00:00:00.83
Pass 2	128	00:00:02.15	00:00:02.76
Symbol table output	17	00:00:00.12	00:00:00.14
Psect synopsis output	2	00:00:00.03	00:00:00.04
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	580	00:00:12.70	00:00:22.18

The working set limit was 1350 pages.  
46712 bytes (92 pages) of virtual memory were used to buffer the intermediate code.  
There were 30 pages of symbol table space allocated to hold 487 non-local and 44 local symbols.  
592 source lines were read in Pass 1, producing 24 object records in Pass 2.  
46 pages of virtual memory were used to define 36 macros.

-----  
! Macro library statistics !  
-----

Macro library name	Macros defined
-----	-----
-\$255\$DUA28:[SHPLIB]UETP.MLB;1	9
-\$255\$DUA28:[SYS.OBJ]LIB.MLB;1	2
-\$255\$DUA28:[SYSLIB]STARLET.MLB;2	22
TOTALS (all libraries)	33

884 GETS were required to define 33 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS^:SATSSS40/OBJ=OBJ\$:SATSSS40 MSRC\$:SATSSS40/UPDATE=(ENH\$:SATSSS40)+EXECMLS/LIB+SHRLIB\$:UETP/LIB

0423 AH-BT13A-SE  
VAX/VMS V4.0

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