11.0 MISCELLANEOUS INSTALLATION COMMENTS

11.1 NAM/RBF START-UP PROCEDURES

NAM, RBF, IAF, and TAF installation creates permanent files that when using default setup procedures, have to be transferred to the SYSTEM user index (377777B) in order to start-up the network.

Located below are the names of those files required for network operation:

Indirect Access Files	Direct Access Files
1. NAM	14. NAMLOCK
2. NPUDUMP	15. RBFLOCK
3. NAMPROC	16. APPLOCK
4. JOBNS	17. NIPLOCK
5. JOBCS	18. NSLOCK
6. JOBNVF	19. CSLOCK
7. JOBTVF	20. NVFLOCK
8. NETPROC	21. TVFLOCK
9. NPSDUMP	22. NPSLOCK
10. NETSS	23. NCFFILE(*)
11. NETUVSN	24. LCFFILE(*)
12. RBF	25. CCPFILE(*)
13. RBFPROC	

(*) NCFFILE and LCFFILE are created by the installer using NDLP. CCPFILE is the Gzzz file created by CCP build step CCPLOAD.

11.2 IAF/TAF Start-Up Procedures

IAF and TAF installation creates permanent files that are transferred to the SYSTEM user index (377777B) in order to start up IAF/TAF.

Located below are the names of those files required for IAF/TAF operation that are created by the SYSTEM procedure in DECKOPL.

Indirect Access Files

1. IAF (IAF)
2. TRACIAF
3. IAFTM
4. IAFTR
5. TAFNAM (TAF)

11.3 RHF START-UP PROCEDURE

RHF installation creates a permanent file that must be transferred to the SYSTEM user index (377777B) in order to start up RHF.

The following files are required for RHF operation:

1. RHF - Indirect file created by SYSTEM procedure in DECKOPL.
2. QTFTxx - Direct file created by the installation.
3. NADTxx - Indirect file created by the installation. (optional)

11.4 XEDIT HELP File

XEDIT installation creates an indirect access permanent file XEDITH that has to be transferred to the LIBRARY user index (377776B) in order to use the XEDIT HELP directive. The XEDITH file must be made CT=PU, M=R after moving it to UI=377776B.

11.5 MOVEPF

X.MOVEPF can be used to transfer any of the aforementioned files. MOVEPF is documented in the NOS Installation Handbook in the NAM installation section.

11.6 NOTES ON PRODUCT INSTALLATION

Several installation jobs exhibit overlapping corrections, non-fatal loader errors, or "COPYL DID NOT FIND" messages. These are not conditions which affect the generated binaries although it is expected that these conditions will be corrected in a future release. The following table details these errors for the associated products. Cases where multiple numbers are provided for a given error with a particular product imply multiple executions of the processor yielding the error. The frequency of occurence of these conditions as documented below is relative to the products as released. Any local code may change these frequencies. For this information to be applicable, users must install all suggested code.

PRODUCT	NON-FATAL UPDATE ERRORS	NON-FATAL LOADER ERRORS	UPDATE OVERLAPPING CORRECTIONS	PARTITIONS NOT REPLACED IN COPYL	GTR OR LIBEDIT ERRORS
AAM1		2		13/109/111	
ALGOL5				5	
BAM	1				
BASIC3				2	
CCPBLB			18		
CCPLOAD			18		
CCPPH1			18		
CCPOVB			18		
CCPVAR			18		
CDCS2				3	
COBOL5				7	
DBU		1			
FTN					1
FTNTS					1
FTN5				3	
F45				1	
PLI				1	
TEXT	1				

SYSJOB

SYSJOB does not show up on REPORT if run from system origin. Therefore, there is no record of it failing or passing and in such a case a useless DAYFILS file will be created on user number SYSTEMX.

FCL1

Notice that FCL1 and FCL2 are actually two parts of the FTN Common Library 4. It is recommended that mods to FCL4 be applied at both times if they are applied at all.

11.7 NOTES ON INSTALLATION VERIFICATION JOBS

Several of the installation verification jobs generate diagnostics in the output file which should not be reason for concern. Several others contain errors which should be corrected as described below. The frequency of occurrence of these conditions as documented below is relative to the products as released. Any local code may change these frequencies.

VALGEDT

Expect 2 diagnostics against line 110, 4 against line 190, and 1 against line 250 of the test program.

VC4C5

Expect several diagnostics against the test program.

VMCS1B

MCS will abort if the procedure file MCSTEST as documented on p. 6-58 of the Installation handbook is used. This will cause VMCS1B to abort.

VALGOL

VALGOL aborts with compilation errors.

VNPS2

VNPS2 fails with "Errors in input - run aborted".

VJOBS

VJOBS call nonexistent jobs: VAAM, VLCS2, VFCS2. These have been replaced by VAAM1, VAAM2, VLCS3, VFCS3.

11.8 RESEQUENCED DECKS

No decks have been resequenced on Level 552/552 NOS 1.4 Operating System.

12.0 DETAILED INSTALLATION NOTES

12.1 SAMPLE LIBDECK WITHOUT ECS

This deck is provided as a reference only.

LIBDECK

```
*CM     PP/CIO,2CA,2CB,2CC,2CD,2CE,2CF,2CG,2CH,2CI
*CM     PP/2NP,NIP,2CK,2CL,2CM (RHF RELATED)
*CM     PP/1AJ,TCS,3AE,3AF,LDR
*CM     PP/LDD,LDQ
*CM     PP/1CK,1MA,1MB,0BF,0DF,0AV,0RP,0FA,0RF
*CM     PP/LFM,3LB,3LF,3LG
*CM     PP/PFM,3PA,3PB,3PD,3PG,3PI,3PK,3PO
*CM     PP/RPU
*CM     PP/1RI,3RH,1RO,3RP,3RQ
*CM     PP/PFM,3PA,3PB,3PD,3PG,3PI,3PK
*CM     PP/1TA,3TK,3TJ,1TO
*CM     PP/1MT,3MG,3MH,3ML,3MT
*CM     PP/1LS,1DC
*CM     PP/1IO,1SJ,1SP,QAC,3QS
*CM     PP/1DL,9A1,9A5,9A6,9A7 (DSD RELATED)
*CM     PP/CPM,TLX,3PO,3CB,2MA,3PH,3RI
*CM     PP/CVL,3CA,3MK,9AA,CMS
*CM     ABS/PFILES,CATALOG,CATLIST,FILES,MFILES
*CM     OVL/LDC
*PROC   LIBMOD,GENVAL,GENHELP,JAB
*PROC   KRON21,KRON21D,NOS
*PROC   NETPLS,SYSMOD,MOVEPF
*PROC   PSRMOD,FEATMOD,CHECK
*FL     ABS/NDA-200,OVL/BINEDIT-131
*FL     ABS/FTN-6410,ABS/BASIC-6250,ABS/CDCS2-6615,ABS/DDLF-6540
*FL     ABS/DDL3-6540,ABS/PLI-6600,ABS/DML-6540
*FL     ABS/FILE-6030,ABS/ALGOL-6500,ABS/ALGEDIT-6400,ABS/COBOL-6630
*FL     ABS/COPYCL-6370,ABS/COBOL5-6600,ABS/SIFT-6410ABS/DDL-6540
*FL     ABS/ESTMATE-6370,ABS/SISTAT-6210,ABS/IXGEN-6650,ABS/DFRCU-6650
*FL     ABS/COPY8P-6200,ABS/SORTMRG-6600,ABS/QU-6600,ABS/REPORT-6420
*FL     ABS/ALGOL5-6450,F45-6600,FTN5-6530,CDCSBTF-6600
*FL     ABS/PMDMP-6410,ABS/IMF-6500,ABS/SORT5-6600,ABS/MERGE-6600
*SC     ABS/ADLP,OVL/BINEDIT
*SC     ABS/REPORT,QUMIP,DDLF,DML,F45
*SC     ABS/COMPASS,FILE,SYMPL,COBOL5,FTN5
*SC     ABS/UPDATE,COPYL,ITEMIZE,DFRCV,DFRST
*SC     ABS/ALGOL,COBOL,FTN,SIMULA,SORTMRG
*SC     ABS/NDA,NDLP,LFG,REPORTR,SCRIPT,STIM,DLFP
*SC     ABS/COPY8P,QU,DDL,DDL,BASIC
*SC     ABS/ESTMATE,SISTAT,IXGEN,ALGOL5
*SC     OVL/RUN,ABS/IMF
*SC     ABS/DDL3
*SC     ABS/CDCS2,DBMSTRD,DBRCVR,DBQRFA,DBQRFI,CDCSBTF
*PROC,KRON21D
*PROC,NOS
*PROC,RELOAD
```

NOTE: If EI200 or RBF are not being used, the respective entries (1LS and 1DC) may be deleted. If RHF is not being used, CIO overlays 2CK, 2CL, and 2CM may be deleted.

12.2 SAMPLE LIBDECK WITH ECS

In the sample LIBDECK below, equipment 11 represents ECS which is not used for swapping. This deck is provided as a reference only.

```
LIBDCK1
*CM     PP/CIO,1AJ,0DF
*CM     PP/9A1,9A5,9A6,9A7 (DSD RELATED)
*CM     PP/3MB (TAPE ERROR RECOVERY)
*CM     PP/1DC (RBF RELATED)
*AD     11,PP/1DL
*AD     11,PP/0RF,0FA,0RP,0BF,0AV,0AU
*AD     11,PP/QAC,3QS
*AD     11,PP/1CJ,1CK,TCS,LDR,1MA,2MA,3AA,3AB,3AD,3AE,3AF,0TD
*AD     11,PP/3AG,LDD,LDQ
*AD     11,PP/2CA,2CB,2CC,2CD,2CE,2CF,2CG,2CH,2CI
*AD     11,PP/1RI,3RG,3RH,3RI,1RO,3RP,3RQ
*AD     11,PP/LFM,3LB,3LF,3LG
*AD     11,PP/PFM,3PA,3PB,3PD,3PE,3PG,3PH,3PI,3PK,3PO
*AD     11,PP/CPM,RPV,3CA,3CB,3CC
*AD     11,PP/1TA,1TO,3TC,3TD,3TE,3TF,3TJ,TLX
*AD     11,PP/1MT,3MG,3MH,3MI,3ML,3MN,3MT
*AD     11,PP/1IO,1SJ,1SP
*AD     11,PP/1LS (EI200 related)
*AD     11,ABS/FILES,PFILES,CATLIST,CTL2,CTL3,EDIT,RESEX
*AD     11,ABS/ACCFAM,MODIFY,LOADER,CHARGE,COPYB,MFILES
*AD     11,OVL/LDC
*AD     11,ABS/COMPASS
*AD     11,OVL/COMP3$,COMP3$A,MSORT
*PROC   LIBMOD,GENVAL,GENHELP,MOVEPF
*FL     ABS/FTN-6410,COBOL-6630
*FL     ABS/BASIC-6250,CDCS2-6615
*FL     ABS/DDL-6540,DFRCV-6650
*FL     ABS/DDL3-6540,PLI-6600
*FL     ABS/DDLF-6540,DML-6540,IMF-6500
*FL     ABS/FILE-6030,ALGOL-6500,ALGEDIT-6400
*FL     ABS/COPYCL-6370,COBOL5-6600,SIFT-6410
*FL     ABS/COPY8P-6200,SORTMRG-6600,QU-6600
*FL     ABS/REPORT-6420,ALGOL5-6450,NDA-200
*FL     ABS/F45-6600,FTN5-6530
*FL     ABS/CDCSBTF-6600,PMDMP-6410
*SC     ABS/REPORT,QUMIP,DDLF,DML,CDCSBTF
*SC     ABS/COMPASS,FILE,SYMPL,COBOL5
*SC     ABS/UPDATE,COPYL,ITEMIZE,DFRCV,DFRST
*SC     ABS/ALGOL,COBOL,FTN,SORTMRG
*SC     ABS/NDA,NDLP,LFG,REPORTR,SCRIPT,STIM
*SC     ABS/COPY8P,QU,DDL,DDL3,BASIC
*SC     ABS/ESTMATE,SISTAT,IXGEN,ALGOL5
*SC     ABS/DBQRFA,DBQRFI,IMF
*SC     ABS/F45,FTN5,DLFP,CDCS2,SIMULA,ADLP
*SC     ABS/DBMSTRD,DBRCVR
*SC     OVL/BINEDIT
```

NOTE: If EI200 is not being used, the respective entry (1LS) may be deleted. If RHF is not being used, CIO overlays 2CK, 2CL, and 2CM can be deleted.

12.3 SAMPLE IPRDECK

This deck is provided as a reference only.

```
LID=TS1,L.
LID=TS2,L.
LID=TS3,L.
LID=MFT,L.
LID=TS4,H.
LID=CY2,L.
LID=N09,L.
LID=M64,L.
LID=M90,L.
LID=M88,L.
LID=TS5,H.
LID=IBM,L.
LID=158,L.
LID=501,L.
TDEN=PE.
TDTR=NT.
CSM=64.
LOCK.
VALID.
RHFAM.
QUEUE,SY,IN,OP7757,LP700,UP3000.
QUEUE,SY,RO,OP6000,LP100,UP1000.
QUEUE,SY,OT,OP400,LP100,UP7700.
SERVICE,SY,PR1,CP100,CM20.
QUEUE,BC,IN,OP2400,LP2000,UP4010.
QUEUE,BC,RO,OP2400,LP1010,UP4004.
QUEUE,BC,OT,OP200,LP100,UP7000.
SERVICE,BC,PR30,CP400,CM200.
QUEUE,EI,IN,OP3400,LP2400,UP4010.
QUEUE,EI,RO,OP3400,LP1400,UP4006.
QUEUE,EI,OT,OP200,LP100,UP7600.
SERVICE,EI,PR30,CP400,CM200.
QUEUE,TX,IN,OP4000,LP3770,UP7006.
QUEUE,TX,RO,OP4004,LP3740,UP7000.
QUEUE,TX,OT,OP200,LP100,UP7000.
SERVICE,TX,PR30,CP40,CM10.
QUEUE,MT,IN,OP6774,LP6700,UP7400.
QUEUE,MT,RO,OP6774,LP4000,UP7400.
QUEUE,MT,OT,OP6000,LP100,UP7700.
SERVICE,MT,PR31,CP400,CM60.
QUEUE,NS,IN,OP7374,LP7360,UP7500.
QUEUE,NS,RO,OP7374,LP7350,UP7500.
QUEUE,NS,OT,OP500,LP100,UP7700.
SERVICE,NS,PR73,CP400,CM200.
DELAY,JS1,CS10,AR1000.
DSD,0,AUTO%X.QREC(NK)
DSD,3,AUTO.
SCP.
MS VALIDATION.
PF VALIDATION.
SRST=640.
```

12.4 NOS EVALUATION CHANGES TO INSTALLATION DEFAULTS

The following code is installed in the NOS Evaluation System. It has been provided for reference only.

LOADER INSTALLATION

The following code is used to turn off the LOAD map and to preset central memory to zero(s).

```
*IDENT NOS01
*I LDRCOM.13
 IP.MAP   CEQU   0
 IP.PSET  CEQU   1
*/ END OF MODSET.
```

COBOL4 INSTALLATION

The following code is used to turn on the CDCS (Version 1) option.

```
*IDENT NOS01
*INSERT,ASSEMOP.23
 DB1.1    EQU    1
*/ END OF MODSET.
```

COBOL5 INSTALLATION

The following code is used to turn on CDCS. Set n to 1 for CDCS Version 1 and 2 for CDCS Version 2.

```
*IDENT NOS01
*PURGE DMGMNT
*DELETE CB5TEXT.245
 OP.DCS   CEQU   OP.DCSn       CDCS ACTIVE
*DELETE ASSEMOP.36
       DEF  CB5$CDCS     #"CDCSn"#;   #CDCS ACTIVE#
*/ END OF MODSET.
```

The above code should be placed on file USER when installing the product concerned to insure its proper installation if these options are desired.

12.5 NETWORK HOST PRODUCTS

The following code is installed in the NOS Evaluation System. It has been provided for reference only.

NAM2 (Network Access Method) Installation

```
*IDENT MULTNODE
*/  LOCAL MOD TO ALLOW TWO FRONT ENDS
*/  AND MAXIMUM NODE NUMBER OF 5 AND UP TO 12
*/  APPLICATIONS.
*D INPARU.160
   DEF     NUMHNODE#2#;
*D INPARU.161
   DEF     MAXAPP#12#;
*D INPARU.163
   DEF     MAXNN#5#;
*C INPARU
*/ END OF MODSET.
```

12.6 RECOMMENDED INSTALLATION PROCEDURE

GROUP 0

GROUP 0 jobs create the COMPOSITE OPL (SYSOPL). Since none of these jobs assemble code, there is no restriction as to which system they are run under.

GROUP I

GROUP I jobs are to be run in consecutive order on a system deadstarted with an unconfigured D/S tape. No job should be started until the preceding job has finished.

It is required that a deadstart tape be built at the end of this phase.

GROUP II

No GROUP II job should be started until all jobs in GROUP I have been completed. Jobs in GROUP II are not order dependent. Thus, any number can be running at the same time. Care should be taken that system resources are not overcommitted by running too many installation jobs at once.

It is required that a deadstart tape be built at the end of this phase.

GROUP III

Jobs in GROUP III require output that was created by a job in GROUP II. Thus, the GROUP II job must be completed before the corresponding GROUP III job can be started.

It is recommended that a deadstart tape be built at the end of this phase.

Note: All DECKOPL procedures have been changed from KCL to CCL. Refer to the section entitled "Initial Setup" in the Installation Handbook for information regarding the change to CCL procedures and how to obtain listings of the various install decks and procedures on DECKOPL.

The S3 switch can have special meaning in the installation of each product. The COMMENTS section for the product in DECKOPL should be reviewed before the GENJOB CALL is issued. It should be noted that the S3 switch for the SYSTEM job specifies if MSSLIB will be preserved as a permanent file when building MSS.

Note: If TRACER and/or RHF are being installed during Group III system job and a system deadstart has occurred since the FTN5 install job, the SYSTEM job may abort with the message ILLEGAL CONTROL CARD on the FTN5 job card. If this happens, a new deadstart tape must be made and the system deadstarted with it to get FTN5 on the running system.

TECHNICAL INSTALLATION NOTES

With the conversion of the installation decks from KCL to CCL and the expanded parameters used in the build process, it is sometimes impossible to directly enter a command under DIS. The statement "STATEMENT TOO LONG" may be averted by using the *ELS. statement* capability of DIS.

GROUP 0 - UPDATE MODIFY PL'S AND CREATE COMPOSITE OPL

PRODUCT	SWITCH SETTINGS S1	S2	S3	PRODUCT TAPE VSN	OTHER TAPES REQUIRED	JOB THAT LAST USED PRODUCT TAPE	NOTES
COMBINE	0	0	0	REL1A	All MODIFY PL's		1,3
MDYBIN							2

GROUP 0 INSTALLATION NOTES

1) The procedure COMBINE builds the composite OPL (SYSOPL) by merging the MODIFY PL's into one file. Critical code (from file MDYMODS) is automatically added; user code, if present on file USER, is also added. Suggested code from file 6 of REL0 may be installed by placing it on file USER. Refer to COMMENTS section in COMBINE for details on its use.

2) The procedure MDYBIN can be used if a binary installation is desired. Install binaries only.

3) If no user file is provided for job COMBINE, and if all possible DEFINES are defined, COMBINE will abort with modify errors. This will not happen if notes and cautions code is applied on file user as is recommended.

GROUP I - INSTALL IN CONSECUTIVE ORDER

PRODUCT	SWITCH SETTINGS S1	S2	S3	PRODUCT TAPE VSN	OTHER TAPES REQUIRED	JOB THAT LAST USED PRODUCT TAPE	SUGG CODE AVAILABLE	NOTES
TEXT	1	1	0	REL1E				5
TEXTIO	1	1	0	REL1E		TEXT		5
COMPASS	1	1	0	REL3A				
UPDATE	1	1	0	REL3A		COMPASS		
LOADER	1	1	0	REL1E		TEXTIO		5
SYSTEM	1	0	0	SYSOPL (INPUT ONLY)				1,6
SYSJOB	1	0	0					2,7,8
NAD	1	0	0					8,9,10
IBM	1	0	0					9,10
MIN	1	0	0					9,10
BCS	1	0	0					2,8,10
BCF	1	0	0					2,8,10
BINEDIT	1	0	0	REL3B	REL3A			
FMD	1	0	0					2,8,10
MTS	1	0	0	REL2A	SYSOPL			2,8,10
FCL1	1	1	0	REL4C	REL3A			8
SYMPL	1	1	0	REL2E				
BAM	1	1	0	REL3B	REL1E	BINEDIT		
FTN	1	1	0	REL4A	REL3A			3
FTNTS	1	1	0	REL4B	REL3A			4
FCL2	1	1	0	REL4C	REL3A			
SORT	1	1	0	REL6A				
AAM1	1	1	0	REL3E				
AAM2	1	1	0	REL3E		AAM1	AM20104	
DDL2	1	1	0	REL11F				
DDL3	1	1	0	REL11H	REL3A			
GENSYS	0	0	0					

GROUP I INSTALLATION NOTES

1) Refer to COMMENTS section in SYSTEM for details on its use. (NOS,EI200,MMF, XEDIT, TELEX,TAFTS, RHF, IAF, TAFNAM)

2) Note: S2=0.

3) Omit if FTNTS installed.

4) Omit if FTN installed.

5) For the TEXT/TEXTIO/LOADER product installation sequence, it should be noted that the output PL (REL1E) created for TEXT should be used as the input PL to the TEXTIO job, and the TEXTIO output should be used as the LOADER input. This also applies to other product set installations where more than one product is on the same output tape. A name in the column "JOB THAT LAST USED PRODUCT TAPE" indicates this situation.

6) The job SYSTEM (Group I and III) assembles the various Modify products using SYSOPL. This job should be run after LOADER in Group I and at some time during GROUP III. Each time, only those products specified under COMMENTS should be installed.

   Group I Modify products are NOS, EI200, MMF, TAFTS, TELEX and XEDIT.
   Group III Modify products are TRACER, TAFNAM, IAF, TOOLS, MSS and RHF.

7) Run SYSJOB only if CYBERLOG is to be used.

8) Jobs SYSJOB, BCS, BCF, FMD, MTS, NAD, and FCL1 produce no output tapes.

9) New decks, NAD, IBM, and MIN are provided to install the product.

10) Jobs BCS, BCF, FMD, MTS, NAD, IBM, and MIN require controlware as additional input in the form of a card deck or magnetic tape. Refer to Installation Handbook (IHB) for additional details.

GROUP II - INSTALL IN ANY ORDER

PRODUCT	SWITCH SETTINGS S1	S2	S3	PRODUCT TAPE VSN	OTHER TAPES REQUIRED	JOB THAT LAST USED PRODUCT TAPE	SUGG. CODE AVAILABLE	NOTES
ALGOL4	1	0	0	REL7A				
ALGOL5	1	0	0	REL7B				
APL2	1	0	0	REL8B	SYSOPL		AP2A068	1,2
BASIC3	1	0	0	REL8A	SYSOPL REL3A			
BIT8	1	0	0	REL3D				
CCG	1	0	0	REL14B				
CCL	1	0	0	REL3B	REL3A	BAM		
CDCS1	1	0	0	REL11C				
CDCS2	1	0	0	REL11G	SYSOPL REL3E REL11H		CD2A37A CD20040 CD20048	
CEDIAG	1	0	1	REL2B	SYSOPL			3
CID	1	0	0	REL3F	SYSOPL		ID1A177	
COBOL5	1	0	0	REL5C			CL5B229	4
COBOL5Q	1	0	0	REL5C				5
C4C5	1	0	0	REL5D				
DBU	1	0	0	REL11D				
FCL5	1	0	0	REL4G	REL3A		FL5A560	
FDBF	1	0	0	REL4D	REL11H REL3A			
FORMAT	1	0	0	REL2C	SYSOPL			
F45	1	0	0	REL4F	REL3A			
IMF1	1	0	0	REL11B	REL3A REL11H			
LCS3	1	0	0	REL5B				
NAM2	1	0	0	REL12A	SYSOPL		NA2B607 NA2B778 NA2B774 NA2B775 NA2B658 NA2B770	6
SIFT	1	0	0	REL2A				

GROUP II INSTALLATION NOTES

1) Refer to COMMENTS section in APL2 and on next page.

2) To install AP2A068 modset, set S1=0 instead of S1=1 on call to GENJOB.

3) Note: S3=1.

4) Refer to COMMENTS section in COBOL5.

5) Refer to COMMENTS section in DECKOPL before using COBOL5Q.

6) A new deck LCS3, replaces the old LCS2 deck.

1) o See COMMENTS section in DECKOPL procedure APL2.

o In order to minimize the installation of APL2 the following steps should be kept in mind:

a) Validate USER numbers APL0(zero) and APL1. See special installation information for APL2 in Section 6 of the IHB. Note that Table 6-1 in the IHB is in error:

o DS=3 yields 2560 PRU's not 1536 for UN=APL0

b) BEGIN, GENJOB,, JOB=APL2, T=ttype.

ttype=terminal type
(See comments in APL2 installation deck)

APL2 can also be installed with an 80 character header message.

EXAMPLE:

```
/JOB
APL2.MESSAGE/ASCII/
REQUEST(TAPE,MT,F=I,LB=KL,VSN=REL8B,HY)
DEFINE(RELTAPE=REL8B)
COPYBR(INPUT,MESSAGE)
BEGIN, (GENJOB,, JOB=APL2, T=ASCII)
/EOR
APL2.1-ASCII TERMINAL
/EOF
```

Step "b" can be omitted if the released binaries are to be used.

c) BEGIN, GENJOB,, JOB=APLUSR0.

d) BEGIN, GENJOB,, JOB=APLUSR1.

APLUSR1 must be installed after APLUSR0.

Note: File USER must be made local to APLUSR0 and APLUSR1 installation. USER contains USER and CHARGE information.

e) BEGIN, GENJOB,, JOB=VAPL2.

GROUP III - PRODUCTS WHICH ARE DEPENDENT ON A GROUP II JOB

PRODUCT	SWITCH SETTINGS S1	S2	S3	PRODUCT TAPE VSN	OTHER TAPES REQUIRED	JOB THAT LAST USED PRODUCT TAPE	SUGG CODE AVAILABLE	NOTES
ALGEDIT	1	0	0	REL7A		ALGOL4		
COBOL4	1	0	0	REL5A				1
DCAT2	1	0	0	REL11A				2
FCS3	1	0	0	REL5B		LCS3		3
FORM	1	0	0	REL3D		BIT8		
FTN5	1	1	0	REL4E	REL3A			4
					REL14B			
MCS	1	0	0	REL12F	SYSOPL			5
					REL12A			
NPS2	1	0	0	REL12D	SYSOPL			5
					REL12A			
PLI	1	0	0	REL14A	REL14B			4
					REL3A			
PMD4	1	0	0	REL4C	REL3A	FCL2		
PMD5	1	0	0	REL4G	REL3A	FCL5		
QU3	1	0	0	REL11E	SYSOPL			6
					REL11H			
RBF2	1	0	0	REL12B	SYSOPL		RB2A540	5
					REL12A		RB2A573	
SYSTEM	1	0	0	SYSOPL (INPUT ONLY)	REL1H(RHF)			9, 10
GENSYS	0	0	0					8

GROUP III INSTALLATION NOTES

1) Install after BIT8.
2) Install after COBOL5.
3) A new deck, FCS3, replaces the old FCS2 deck.
4) Install after CCG.
5) Install after NAM2.
6) Install after DBU and CDCS2. Refer to COMMENTS section in QU3.
7) Refer to COMMENTS section in SYSTEM for details on its use (IAF, MSS, TAFNAM, TOOLS, TRACER, RHF).
8) Run after all GROUP III jobs have completed.
9) File 3 of REL14 (MSS) and REL1G (TRACER) does not contain relocatable binaries, but is empty.
10) TRACER and RHF both require FTN5 to be installed first.

VERIFICATION JOBS

PRODUCT	SWITCH SETTINGS S1	S2	S3	PRODUCT TAPE VSN	OTHER TAPES REQUIRED	JOB THAT LAST USED PRODUCT TAPE	NOTES
VAAM1	0	0	0				7
VAAM2	0	0	0				
VALGEDT	0	0	0				
VALGOL	0	0	0				
VALGOL5	0	0	0				
VAPL2	0	0	0				
VBAM	0	0	0				
VBASIC3	0	0	0				
VBIT8	0	0	0				
VCDCS1	0	0	0				
VCDCS2A	0	0	0				1
VCDCS2B	0	0	0				
VCID	0	0	0				
VCOBOL4	0	0	0				
VCOBOL5	0	0	0				
VCROSS	0	0	0	REL13A			
VC4C5	0	0	0	REL5D			
VDBU	0	0	0				
VDDL2	0	0	0				
VDDL3	0	0	0				
VFCS3	0	0	0	REL5B			
VFDBF	0	0	0				2
VFORM	0	0	0				
VFTN	0	0	0				
VFTNTS	0	0	0				
VFTN5	0	0	0				
VF45	0	0	0				
VIMF1	0	0	0				
VJOBS	0	0	0				3,5,6,8
VLCS3	0	0	0	REL5B			2
VMCS1A	0	0	0				
VMCS1B	0	0	0				
VNPS2	0	0	0				
VPLI	0	0	0				
VQU3	0	0	0				4
VSORT	0	0	0				
VSYMPL	0	0	0				

VERIFICATION JOBS NOTES

1) The verification of CDCS2 is a multi-step process which is outlined in the COMMENTS Section of VCDCS2A.

2) VFCS3 and VLCS3 replace VFCS2 and VLCS2.

3) Submits all verification jobs except VCDCS2A, VCDCS2B, and VQU3. VJOBS sets the output ID to 30 so that all the verification output can be put on one printer.

4) Run as batch job only.

5) The user card and charge card (if necessary) for the installation user index should be on the file USER for VJOBS.

6) When running VJOBS, the densities of the output tapes from other jobs may not match the densities on the request cards. To avoid a mismatch, use the DENSITY=XXXX and TRACK=yy parameters on the GENJOB call to VJOBS.

7) VAAM1 and VAAM2 replace VAAM.

8) VJOBS calls the nonexistent jobs: VAAM, VLCS2, VFCS2. See notes 2 and 7 above.

CCP/CROSS TAPE AND DISK FILE REQUIREMENTS

Build Step Order	Build Step Name	Input Tape VSN	Output Tape VSN	Input Files Generated by Previous Step	User Input File	Perm. Files Created	Optional Permanent Files Created
1	CROSS	REL13A	NEW13A		UCRS USERCHG CPRD	Addd	LCRD
2	CCPPH1	REL13B REL13E REL13F			UCCP USERCHG CNSP	ZMUX PCMB PCCP	LMFB,ZDGN PDGN,ZREM PREM
3	CCPOVB *		NEW13E NEW13F	PCMB PDGN,PREM	UCCP USERCHG		LDGB,ZDGN LRMB,ZREM
4	CCPBLB		NEW13B	ZMUX,LMFB PCMB,ZDGN ZREM,PCCP	UCCP USERCHG	BCMB	LFCA
5	CCPVAR		NEW13C	PCMB BCMB	UCCP USERBPS USERCHG	Zvvv Svvv	Lvvv
6	CCPEDIT *			Zvvv Svvv	UEDZ USERCHG	Zyyy Syyy	
7	CCPLOAD			PCMB ZMUX ZDGN ZREM Zvvv	UCCP USERBPS USERCHG	Gzzz	
8	CCPPURG *				USERCHG		

* = optional

NOTES: (continued on following page)

1. If LIST=PF or LIST=BOTH on the calls to CCPPH1, CCPOVB, CCPBLB or CCPVAR, the list file will be placed on the appropriate RELTAPE. These list files will be kept as permanent files until the RELTAPE is created and then be purged. Thus, if a job aborts before the RELTAPE is created, the list file will be permanent as described in section 6 of the IHB. If LIST=YES or LIST=NO is specified, the list file will not be placed on the RELTAPE. Specifying LIST=YES or LIST=BOTH will write the list file to output.

2. In order to build CCP for a 63-character set system, it is necessary to add the following statements to the end of the job shown in step 1 of initial setup on page 3-6 of the Installation Handbook.

```
ATTACH(OPL=DECKOPL/M=W)
MODIFY(F,CV=63,I=0,N,LO=E)
REWIND(OPL,NPL)
COPYEI(NPL,OPL)
```

Next, perform Step 4 with:

```
BEGIN(GENJOB,,JOB=GENFILS, DF63=63CSET)
```

If other modifications need to be applied to DECKOPL at a later time, perform Step 3 with:

```
BEGIN(GENJOB,, JOB=DECKFIX, DF63=63CSET)
```

If more than one variant is being built by performing each CCPVAR step in separate batch jobs (or by calling from an interactive job), it is necessary to provide a different NEW13C tape (or permanent file) for each variant. If all calls to CCPVAR are made from one batch job, the NEW13C files for all variants will be written on one tape. If you desire to run CCPVAR in separate batch jobs, but prefer to use only one tape, then perform step 3 of initial setup on page 3-7 of the Installation Handbook with the following modification.

```
*IDENT,INSDRTB
*DECK,DRTBAT1
*I,101
SKIPEI(LFN)
```

If the released version of the JOBNS permanent file is used (see pages 6-39 and 6-40 of the Installation Handbook), it is necessary to rename the Gzzz file (created by the CCPLOAD step) to "CCPFILE" when moving it to SYSTEMX (User Index 377777).

13.0 INSTALLATION RESPONSE FORM

NOS Field Support maintains a site list of the sites using NOS. In order that we can represent the customer base more effectively, we ask that you fill out the form found below and return it to Field Support. Thank you.

- -

SITE NAME AND CODE _____

SITE ADDRESS _____

_____

_____

CONTACT _____

DATE _____

PROF. SERVICES ANALYST _____

LOCATION _____

This site has installed NOS 1.4 Level 552 and is currently using it in a production environment.

Communications software being used:

( ) TELEX ( ) IAF ( ) RHF

( ) EI200 ( ) RBF

( ) TAFTS ( ) TAFNAM

Please return to:

NOS FIELD SUPPORT - ARH213
CONTROL DATA CORPORATION
4201 Lexington Avenue North
St. Paul, MN 55112

0658K

APPENDIX A

```
*IDENT AM20104
*B HISTORY.2
 AM20104  AAM2PL
          AM20078 CONCERNED A CASE WHERE A JOB ABORTED BY TRYING TO WRITE
          OUT A BLOCK IN A MIP FILE THAT DID NOT HAVE WRITE PERMISSION.
          WRITING OUT THE BLOCK WOULD NOT INJURE THE FILE, AND THE CASE
          DID NOT HAPPEN FREQUENTLY, SO WE CORRECTED IT BY BY-PASSING
          THE CODE THAT LED TO THE WRITE, IF THE FILE DID NOT HAVE ALL
          PERMISSIONS.

          IT TURNS OUT THAT THERE IS STILL A WAY TO FALL INTO THAT TRAP.
          THE FILE MAY HAVE ALL THE PERMISSIONS, BUT BE OPEN FOR INPUT
          ONLY. FOR THE BAD CASE TO ARISE, THERE MUST BE SOME MIP FILE
          THAT HAS BEEN ALTERED BY THE CURRENT JOB STEP, BUT IT MAY HAVE
          BEEN CLOSED, AND THIS MAY HAVE LED TO THE UNLOADING OF THE
          CAPSULES THAT ARE NEEDED ONLY FOR UPDATING. SO THE TEST FOR
          ALL PERMISSIONS PASSES, BUT THE JOB ABORTS CALLING AN UNLOADED
          SUBROUTINE.

          TO CORRECT THIS, WE COULD ADD TO THE TEST IN AM20078 EITHER
          A TEST OF THE PROCESSING DIRECTION OF THE CURRENT FILE
          (MUST NOT BE INPUT) OR A TEST FOR WHETHER THE MIP-UPDATE
          CAPSULE IS NOW LOADED. TO AVOID CONFUSION IF THERE ARE TWO
          OPEN FITS FOR THE SAME MIP FILE, ONE OPEN FOR READ-ONLY
          (PD=INPUT) AND THE OTHER OPEN FOR READ AND UPDATE, THE
          FOLLOWING CORRECTION CODE TESTS FOR THE PRESENCE OF THE
          CAPSULE, RATHER THAN THE PD OF THE CURRENT FIT.
          AFRB   10/06/81    MIPDMIP

*COMPILE HISTORY
*I MIPDMIP.10
          PROC PUT$MP;
*I MIPDMIP.38
CONTROL WEAK PUT$MP;
*I AM20078.23   MIPDMIP.1326
                    AND LOC( PUT$MP ) GR 0 #UPDATE CAPSULE LOADED#
*COMPILE MIPDMIP
*/ THERE ARE     38 CORRECTION CARDS INCLUDING THIS COMMENT.
```

```
*IDENT,DIMA637
*/ MODSET DIMA637 APPLIES TO DECK FMDFT ON REL2B AND PL5A.
*BEFORE,HISTORY.2
*
* FMDFT    JMO     81/09/16
*          MODSET CORRECTS THE FMDFT PRODUCT OVERLAY SO FMU DOES
*          NOT ERROR ON GET SERIAL OR READ FACTORY/UTILITY MAPS
*          WITH INCOMPLETE DATA RETURNED TO PP. PSR DIMA637.
*
*COMPILE,HISTORY
*DELETE,DIMA605.7
          STM     IJM3
*DELETE,DIMA605.8
          SOM     IJM3
*INSERT,FMDFT.1638

 IJM3     DATA    0            TIME FOR ONE SECOND
*COMPILE,FMDFT
*/ MODSET DIMA637 CONTAINS 19 CARDS INCLUDING THIS COMMENT.
```

```
FIP1
*IDENT    FIP1
*DECK     FIP
*D,260
 .1 MICRO 1,,#_A_#
*D,283
 .1 MICRO 1,,#_A_#
*D,306
 .1 MICRO 1,,#_A_#
*D,325,326
  IFC NE,#_A_##,2
 TAG MICRO 1,,#_"TAG",A_#
*/        END OF MODSET
```

```
*IDENT    IAFEX61  JDB.       82/01/14.
*/        ****   NOS 1.5 OS.
*/        *****  PROBLEM - A UPPER CASE SHIFT AT THE
*/        END OF A WORD WHICH IS THE END OF THE
*/        POT CHAIN, CAUSES THE 0014 CONTROL BYTE
*/        TO BE INCLUDED IN THE OUTPUT DATA AND
*/        GARBAGE DATA BEYOND THE 0014 CONTROL BYTE
*/        IS ALSO INCLUDED (UP TO 7 WORDS).
*/        THIS BUG OCCURS ONLY IN EXTENDED CHARACTER MODE.
*/
*/        SOLUTION - TEST FOR 0014 CONTROL BYTE ON
*/        A CONTINUATION TO THE NEXT WORD.
*DECK     IAFEX
*I,N15500.1762                (19641)
 TDM16.1  SX2    ASC.US       SEND UNIT SEPARATOR
          SB3    B1           LAST CHARACTER
          SA1    B4           INDICATE REENTRY TO EOR
          MX7    1            INDICATE UNIT SEPARATOR SENT
          SA7    TDMB
*I,N15500.1771                (19641)
 TDM17.1  SX2    0014B
          LX2    59-11
          BX2    X1-X2        TEST FOR 0014 CONTROL BYTE
          ZR     X2,TDM16.1   IF END OF POT CHAIN
*D,N15500.1825                (19641)
          JP     TDM17.1      74 OR 76 ESCAPE
*/        END OF MODSET.
```

```
KRA881
*IDENT    KRA881 BRH.          82/01/22.
*/        ****   NOS 531A.
*/        ****   NS0G567.
*/        ****   NS05021.
*/        *****  PROBLEM - FTN COMPILE WOULD MODE OUT IF ROLLED
*/        OUT AFTER ACQUIRING ECS FOR USE IN THE COMPILE.
*/
*/        *****  SOLUTION - ECM ROLLOUT/ROLLIN WOULD DESTROY PART
*/        OF THE JOBS CM.  SINCE ECM IS READ AND WRITTEN FROM THE
*/        PP  FOR  ROLLOUT AND ROLLIN, CENTRAL MEMORY AND ECS MAY
*/        BE WRITTEN AS TWO SEPERATE  CHUNKS  SINCE  CM  IS  NOT
*/        NEEDED  AS A BUFFER FOR ECS.  THIS PREVENTS THE PROBLEM
*/        FOR ECM.
*DECK     1RO
*D,410
 JEC0     RJM    ECM           DUMP SOFT ECS

 JEC      SUBR                 ENTRY/EXIT
 JECZ     LDN    0
*         LDN    1             (IF CME)
          NJN    JEC0          IF CME
*D,AN15300.5,AN15300.21       (425)
*         ROLLOUT ECS.

          LDN    ZERL
*D,AN15300.89,AN15300.96      (1091)
          LDN    0
*D,1204
 PRS6     LDN    CPUL
          CRD    CM
          LDD    CM+3
          SHN    21-10
          PJN    PRS6.5        IF NO CME
          LDC    LRDI+CN+2
          STM    ROMC
          LDD    FL
          STM    JFLA
          AOM    JECZ
 PRS6.5   LDD    CP
*DECK     1RI
*D,287
 JFLZ     SBN    MCMX/100/2
*         PSN                  (IF CME)
*D,316,AN15300.16
 JEC10    RJM    ECM           LOAD ECM

 JEC      SUBR                 ENTRY/EXIT
 JECC     LDN    0
          NJN    JEC10         IF CYBER 835
          LDN    MCMX/100/4
*D,1164
          LDN    CPUL
          CRD    CM
          LDD    CM+3
          SHN    21-10
          PJN    PRS.1
          AOM    JECC          SET CME FLAG
          LDN    0
          STM    JFLZ          SET PSN INSTRUCTION
 PRS.1    LDN    2             CONSTANT 2
*/        END OF MODSET.
```

M1811 MESSAGE LISTING. 82/03/26. 82/02/24. 82/02/24.

AUTHOR LISA TRAEGER
CODE LEVEL 543,552
ENTRY-820118
ORIGIN-820118
PROD NAME CCP 3.3
PROD NUM N221-01
REL LEVEL 543,552
SIM N058
SUBJ- SIM N058-1 MODE4 PRINTER HANGS
TYPE NETWORK PRODUCTS

THE CODE IN THIS SIM CAN HELP USERS THAT HAVE MODE4 PRINTERS THAT APPEAR TO BE "HANGING". IF THE MODE4 STATION OR LINE IS POWERED OFF OR HAS A LINE FAILURE, THE NEXT TIME THE STATION IS BROUGHT BACK UP THE LINE (OR PRINTER) WOULD HANG AFTER THE FIRST COMMAND ENTERED. THIS CODE SHOULD REPAIR THIS SITUATION.

```
*ID CC40602
*B HISTORY.2
 CC40602  MODE4 DOES NOT PRINT AFTER A GO,LP.

          AFTER A LINE FAILURE, CCP DOES NOT CLEAR THE BSSTSTOP
          BIT ON CONNECTION INIT. THIS CAUSES BIP TO NOT BACK THE
          FIRST DEVICE COMMAND TO THE PRINTER CONNECTION, WHICH MAY
          CAUSE THE CONNECTION TO HANG.

          DEPENDENT ON PRU

          EPL             01/05/82        PBBPM

          SRN=XXXX

*C HISTORY
*I PBBPM.466
      BSSTSTOP    := FALSE;                    _ RESET STREAM STOPPED     ?
*C PBBPM
```

M1810 MESSAGE LISTING. 82/03/26. 82/02/23. 82/02/23.

AUTHOR LISA TRAEGER
CODE LEVEL 543,552
ENTRY-820120
ORIGIN-820120
PROD NAME CCP 3.3
PROD NUM N221-01
REL LEVEL 543,552
SIM N059
SUBJ- SIM N059-1 TRANSPARENT OUTPUT ON 9600 BPS LINES.
TYPE NETWORK PRODUCTS

THE CODE IN THIS SIM CORRECTS A PROBLEM IN SENDING TRANSPARENT OUTPUT ON 9600 BPS LINES, TYPICALLY FOR CAD/CAM OR GRAPHICS USERS.

```
*ID CC4C164
*B HISTORY.2
 CC4C164  BAD DATA SENT TO T4014 AT 9600 BAUD

          ASYNC TIP DID NOT CHECK THE TRANSPARENT BIT IN THE DBC BEFORE
          CHECKING FOR FORMAT EFFECTORS ON LINE SPEEDS OF 9600 BAUD

          MODIFY THE ASYNC TIP TO CHECK THE TRANSPARENT BIT, AND IF SET
          IGNORE FORMAT EFFECTOR PROCESSING

          EPL/JGS        01/13/82        ASYNCTIP

         DEPENDENCIES: CC40248

*C HISTORY
*D ASYNCTIP.713,714
               ATFIRST  : BOOLEAN;
               ATSPR2   : BOOLEAN;
               ATSXPRT  : BOOLEAN;
               ATSPR3   : B02BITS);
*I CC40248.27                          NEAR ASYNCTIP.814
          IF NOT AVNDBC.ATSXPRT              _ IF NOT TRANSPARENT        ?
          THEN
          BEGIN
*I CC40248.80                          NEAR ASYNCTIP.815
          END  _IF NOT AVNDBC.ATSXPRT ?
*C ASYNCTIP
```

M1798 MESSAGE LISTING. 82/03/26. 82/02/16. 82/02/17. 05.41 PM

AUTHOR CHENG-YU CHOW
CODE LEVEL 543 AND 552
ENTRY-543 AND 552
ORIGIN-820212
PROD NAME
REL LEVEL 543 AND 552
SIM N060
SUBJ-N060-1 CCP LOSES BUFFERS.
TYPE NETWORKS

BIP MAY LOSE BUFFERS IF INPUT IS ENTERED WHILE THERE
IS A CONNECTION SWITCH IN PROGRESS.

```
*ID CC4C198
*B HISTORY.2
 CC4C198  TOO MANY LOST BUFFERS
          BIP MAY LOSE BUFFERS IF INPUT IS ENTERED WHILE THERE
          IS A CONNECTION SWITCH IN PROGRESS.

          EWB/JGS/EPL    82/02/09       PBULTS,ASYNCTIP

*C HISTORY
*C PBULTS,ASYNCTIP
*D PBULTS.1217,CC4B828.67
    END;  CONNECTION ESTABLISHED?
  PBRELZRO (BSINPBUF, BEDBSIZE);          _ RELEASE INPUT BUFFER     ?
*I ASYNCTIP.1714
    PTAPBUFREL (BSINPBUF);                _ RELEASE INPUT BUFFER     ?
```

AUTHOR BROWN EDWIN W III
ENTRY-820219
ORIGIN-820216
PROD NAME RBF 1.3
PROD NUM F521-26
REL LEVEL 538
REL LEVEL 543
REL LEVEL 552
SIM N061
SUBJ-N061-1 BATCH TERMINAL HANGS AT END OF PRINT FILE
TYPE NETWORK PRODUCTS

DUE TO IMPROPER FILE LIMIT PROCESSING IN CCP, A BATCH TERMINAL MAY HANG AFTER PRINTING THE LAST LINE OF A FILE. THIS SITUATION IS INDICATED IN THE RBF DAYFILE BY THE MESSAGE, "DCM STATE TABLE ERROR - O/ D". UNTIL CCP IS CORRECTED, THE FOLLOWING RBF CODE WILL WORK AROUND THE PROBLEM.

```
*ID RB20179
*/
*/ NOTE:  THIS CODE IS A WORK-AROUND SOLUTION DEVELOPED BY FIELD SUPPORT
*/        AND SHOULD BE USED ONLY TEMPORARILY UNTIL A FORMAL SOLUTION IS
*/        GENERATED.
*/
*B HISTORY.2
 RB20179  IGNORE OFC/STPD,RC=FLE (FILE LIMIT EXCEEDED) IF IT OCCURS WHEN
          PRINTING THE ACCOUNTING MESSAGE AT THE END OF A FILE.
          EWB     82/02/08    DCM

*C HISTORY
*D DCM.629
                                S"DCM$GOEOF",S"DCM$ERROR",S"DCM$IDLE",
                                S"DCM$WTEOF",
*D DCM.696
                                S"DCM$A0",S"DCM$A31",S"DCM$AER",
                                S"DCM$A21",
*I DCM.903
      ARRAY TRAP S(3);
        BEGIN
        ITEM TRAPMSG C(0,0,28) = ["OFC/STPD,RC=FLE WAS IGNORED."],
             TRAPEOL U(2,48,12) = [0];
        END
*I DCM.2279
          IF DCB$CURINPUT EQ DCMINPUT"LIMITDCM"
             AND
             DCB$CURSTATE EQ DCMSTATE"DCM$GOEOF"
          THEN
            BEGIN
            MESSAGE (TRAP, DFLOPT);
            END
*C DCM
```

M1804 MESSAGE LISTING. 82/03/26. 82/02/19. 82/02/19. 03.11 PM

AUTHOR BROWN EDWIN W III
ENTRY-820219
ORIGIN-820216
PROD NAME CCS 1.2
PROD NUM F521-25
REL LEVEL 552
SIM N062
SUBJ-N062-1 CROSS MACRO ASSEMBLER INCOMPATIBILITY
TYPE CYBER CROSS SYSTEM

CODE FOR PSR XSY0124 AND XSY0136, INTRODUCED AT PSR LEVEL 552, CORRECTS LONG OUTSTANDING PROBLEMS WITH THE MACRO ASSEMBLER WHICH HAVE BEEN WORKED AROUND IN THE PAST BY USING CERTAIN CODING TECHNIQUES. THESE METHODS WILL NOW CAUSE ASSEMBLY ERRORS OR INCORRECT OBJECT CODE.

CCP HAS BEEN MODIFIED BY CODE FOR PSR CC4B832 AND RN1C002 IN ORDER TO BE COMPATIBLE WITH THE NEW ASSEMBLER. ALL OTHER L552 CCP PSR CODE WAS ALSO WRITTEN USING THE NEW ASSEMBLER RULES. PLEASE CONSULT FIELD SUPPORT BEFORE ATTEMPTING TO INSTALL ANY L552 CODE IN L543 CCP USING THE OLD ASSEMBLER. FAILURE TO DO SO MAY RESULT IN ERRONEOUS OBJECT CODE WITHOUT WARNING BY THE ASSEMBLER.

ADDITIONALLY, ALL NON-STANDARD CCP CODE (LOCAL MODIFICATIONS AND SPL PRODUCTS) SHOULD BE INSPECTED FOR ADHERENCE TO THE NEW ASSEMBLER SYNTAX BEFORE UPGRADING TO PSR LEVEL 552. THE CHANGES AFFECT MACRO CALLS IN THE FOLLOWING MANNER:

1. THE ADDRESS FIELD STARTS WITH THE FIRST NON-BLANK AFTER THE OPERATION CODE. IF THE FIRST NON-BLANK DOES NOT OCCUR BEFORE COLUMN 30, THE ADDRESS FIELD IS CONSIDERED BLANK AND ALL PARAMETERS NULL.
2. THE ADDRESS FIELD TERMINATES WITH THE FIRST BLANK OR COLUMN 73, WHICHEVER OCCURS FIRST.
3. IF THE CHARACTER IMMEDIATELY PRECEDING THE TERMINATOR (BLANK OR COLUMN 73) IS A COMMA, THE MACRO CALL IS CONTINUED ON THE NEXT LINE.