U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE
NATIONAL METEOROLOGICAL CENTER

OFFICE NOTE 230

How to Get Some Varian Graphics: Part I

A. J. Desmarais
Development Division

MARCH 1981

This is an unreviewed manuscript, primarily intended for informal exchange of information among NMC staff members.

NMC's VARIAN Package

The VARIAN programs, developed by Automation Division, operationally provide graphics for data plots and contours from the various analyses and forecasts on several map scales and projections. The graphical products are made available to many users:

(a) in-house hard copy from the VARIAN recorder,

(b) facsimile transmissions to outside users,

(c) display on the AFOS system, and

(d) 35-mm film generated by OMCS Graphics Section.

Many researchers and programmers in NMC have a need to display the results from various impact studies, data evaluation tests, analysis and forecast models, diagnostic studies, etc. The operationally designed VARIAN package, however, has its limitations, is somewhat cumbersome to use, has many options, but produces excellent graphics. To minimize the difficulty in using portions of the VARIAN package in a checkout mode and in specifying the options, several programs and procedures have been generated for your use. But, remember, the package can not do everything one can imagine; it will always be up to the user to provide the necessary input files, in the correct format, for the options chosen. That is, observations for data plots have to be in NMC Office Note 29 format in sequential files; gridded fields have to be in Office Note 84 format and reside in random access disk files. The version of the VARIAN program described herein is a modification of the NMC operational program PEPFAX8. Other VARIAN products, like the Mercator strips, will be documented and made available at a later time.

Loading Data Files from Tape

If necessary input files are not already resident in disk files, one may use, for example, the NMC procedures NWSLDLFM, NWSLDOPL, or NWSLDFNL to extract the desired files from the NMC history tapes. These procedures will automatically restore observational data to sequential files on temporary disk and/or restore gridded fields to temporary random access files. User-generated fields in Office Note 84 format can be converted from a sequential file to a random access file by using the catalogued procedure SEQ2RA. (See Appendix A1).

Setting up the VARIAN Input Controls

The procedure VSETUP (See Appendix A1) requires two (2) input data cards that will be used to generate the necessary card input file for the VARIAN program. The user merely selects the type run (KRUN), the data plot control (IC), the output merge control (MP) as given in Table 1, and the desired map numbers for the given KRUN from Table 2 or Table 3. Additional map numbers can be added to Table 2 or Table 3 upon request (See Desmarais).

Table 1. Format of Input Cards for VSETUP (//SYSIN DD *):

Card 1.

Columns 1 - 4, KRUN, left-justified, use one of the following:

OPN	for operational run, t=0 thru t=48,	(N. Hem)
OPNS	" " " " " "	(S. Hem)
LFM	" LFM " " " "	(N. Hem)
RAD	" RADAT " " " "	(N. Hem)
EXP	" ext. forecast run, from t=60,	(N. Hem)
FIN	" FINAL run, T=0, 12, 24	(N. Hem)
FINS	" " " " " "	(S. Hem)

Column 5, IC, data plot control:

2 specifies contours only and a label card.
3 specifies contours and data plots, and a label card.
4 specifies data plot only, and a label card.
0 (for operational use)
1 (for R. Schnurr's use)

Column 6, MP, output merge control, (FT01F001):

0 signifies the last of a series or a single VARIAN program execution.
1 signifies that 2 or more VARIAN program executions are planned, and that the subsequent output files will be concatenated (MOD,PASS).

(For disk output, see the section 'Varian output file')

NOTE: Use of MP=1 will cause COND CODE = 16. This is normal.

Columns 7,8,9, a 3-digit number from Table 2 or Table 3 for desired map.
10,11,12
etc. " " " " " " " " "
70,71,72 (as needed -- maximum of 22 maps per run).

Card 2. (Label Card)

Columns 1 - 4, 0300 = user label starts 3.00 inches from left edge.
5 - 8, 0040 = " " " 0.40 " from bottom " .

NOTE: User is allowed to start the label anywhere on the map.

9 - 72, user label--should include bin number to store the maps, user's name, and any other pertinent information.

Data Plots

The option to plot data with the VARIAN program is controlled by the data plot control (IC) used in VSETUP. If IC = 3 or 4, the user must prepare the data prep file specified in Table 4 for the desired KRUN.

The file may be created by executing the procedure DATAX20 or DESUAPAP (See Appendix A2 and A3). Notice that the output from both of these procedures will be on a temporary disk file with a DSN = &&FILI54, and is to be passed to the procedure VARIANX by setting the parameter ADP='&&FILI54'. By default, the VARIAN program will use an empty file for ADP.

The date/time of the ADP file to be created must agree with the GES file. If a GES file is not available, the user may create an empty but suitable (&&GES) file by executing the following JCL:

```
//GESER EXEC PGM=DESGESER
//STEPLIB  DD  DISP=SHR,DSN=NWS.NMC.DDIVDAB.LOAD
//FT06F001 DD  SYSOUT=A
//GES      DD  DISP=(NEW,PASS),UNIT=SYSDA,SPACE=(CYL,1),DSN=&&GES
//FT10F001 DD  DISP=(OLD,PASS),DSN=&&ADPUPA  (or any other data file
                                             previously loaded)
```

However, there is no date/time test made between the ADP file and the analysis of forecast files. This permits one to display verifying observations on forecast displays.

Data plots are only permitted with certain maps combinations, namely,

(a) Heights and relative humidity,
(b) Heights and isotachs,
(c) Heights and temperatures,
(d) Heights and thickness,
(e) Heights only.

TABLE 2.

	LFM									FINAL													RADAT
											N.H.				S.H.								
	00 FMNL	FM00	12 FM12		24 FM24		36 FM36		48 FM48	00 ANL3	12 GF12	24 GF24		00 ANL3	12 GF12	24 GF24	00 ANL1	12 ANL1	24 ANL1	36 ANL1	48 ANL1	
SFC Pres. Chg.																		204				
MSL Pres.																						
MSL Pres. and 1000-500 THKNS	404		408		416		422		428	901	912	918		920	949		201					
MSL Pres. and 1000-300 THKNS															924	927						
1000 HGT and 1000-500 THKNS										947				948								
1000 HGT and 1000-250 THKNS	445		446																			
850 HGT and 850 TEMP	403		410		412		424		430	902	908	914		937	952							
850 HGT and 850-500 THKNS																						
850 HGT and 850 Isotachs										931	951			938	953							
850 RH										930				945								
700 HGT and 700 TEMP										903				939								
700 HGT and 700 Isotachs																						
700 HGT and SIGL1RH	401		406		415		421		427													
700 HGT	447																					
500 HGT and 500 TEMP	444									904	909	915		940	954		202					
500 HGT and 500 Vorticity	402		407		414		420		426	933				941			203	206	207	208	209	
500 HGT and 500 Isotachs	431		432		433		434		435	934	910	916		921	925	928						
500 HGT																						
500 RH										932				946								
500 HGT Error																						
500 Lifted Index	405		411		413		425															
500 HGT Change																			205			
300 HGT and 300 TEMP																						
300 HGT and 300 Isotachs										905	911	917		922	926	929						
250 HGT and 250 TEMP	440		441		419		442		443	935				942								
250 HGT																						
250 HGT and 250 Isotachs	436		437		418		438		439	907	913	919		923	950							
200 HGT and 200 TEMP														956								
200 HGT and 200 Isotachs										906				943								
100 HGT and 100 TEMP														944								
100 HGT and 100 Isotachs																						
50 HGT and 50 TEMP										955												
SIGL1RH and 6-hr. 700 Vert. Vel.																						
SIGL1RH and 700 Vert. Vel.																						
Precip. Amt. and 700 Vert. Vel.			409		417		423		429													
Trop. Streams and Trop. Isotachs																						
Trop. Pres. and Trop. Wind Shear																						

TABLE 3.

	ANL P00 00	06	F12 12	F12 18	F24 24	F24 30	F36 36	F48 48	F60 60	F72 72	F84 84	F96 96	F96 120	F96 144	F96 168
	← OPERATIONAL →								← EXTENDED →						
SFC Pres. Chg.															
MSL Pres.	683		694												
MSL Pres. and 1000-500 THKNS	601	701	615	623	624	665	636	645		808	809	833	834	835	
MSL Pres. and 1000-300 THKNS															
1000 HGT and 1000-500 THKNS															
1000 HGT and 1000-250 THKNS															
850 HGT and 850 TEMP	649		652		673		674	675		810	811				
850 HGT and 850-500 THKNS					659										
850 HGT and 850 Isotachs			651		660		676	677		812					
850 RH															
700 HGT and 700 TEMP	650				680			681							
700 HGT and 700 Isotachs			654		662		666	679		813					
700 HGT and SIGL1RH															
700 HGT Vert. Vel.					661		667	678							
500 HGT and 500 TEMP	602		653		690		691	692		814					
500 HGT and 500 Vorticity	607	702	618	706	629		638	646		815	816				
500 HGT and 500 Isotachs	697		655		663		640	648		818	819				
500 HGT Vorticity					683		639	647	801	802	803 817	804	805	806	807
500 RH															
500 HGT Error							669								
500 Lifted Index	608		617		628		637	643							
500 HGT Change															
300 HGT and 300 TEMP	611				632		685	686		822	832				
300 HGT and 300 Isotachs	603		616		625		668	684		821	831				
250 HGT and 250 TEMP	605				627										
250 HGT	700														
250 HGT and 250 Isotachs	604	704	620	699	626		641	687		823	824				
200 HGT and 200 TEMP	612				633										
200 HGT and 200 Isotachs	606		656		664										
100 HGT and 100 TEMP	610				631			689		827	828				
100 HGT and 100 Isotachs	609				630			688		825	826				
50 HGT and 50 TEMP	698														
SIGL1RH and 6-hr. 700 Vert. Vel.	613														
SIGL1RH and 700 Vert. Vel.		703	619	707	622		635	644		820	836				
Precip. Amt.		705	614	708											
Trop. Streams and Trop. Isotachs				657	621		634	642		829	830				
Trop. Pres. and Trop. Wind Shear	695			658	696										

Table 4. File Names, Run Markers, and Map Scales for the VARIAN Program.

NMC RUN	Data prep File name	VSETUP KRUN	Scale	Random Access Files (DDNAME's) to be opened
RADAT	1DOTFAX	RAD	1:40	ANL1, NEWPAP*, OLDPAP*
OPNL	NHEMI40	OPN	1:40	ANL1,F00,F12,F24,F36,F48,NEWPAP*,OLDPAP*
	SHEMI40	OPNS	1:40	" " " " " " " "
OVR48	NHEMI40	EXP	1:40	F60,F72,F84,F96**
FINAL	NHEMI40	FIN	1:40	ANL,GF12,GF24,NEWPAP*,OLDPAP*
	SHEMI40	FINS	1:40	ANL5, " " " "
LFM	2DOTFAX	LFM	1:20	FMANL,FM00,FM12,FM24,FM36,FM48,NEWPAP*,OLDPAP*
1DOTFAX	1DOTFAX	PLT1	1:20	ANL1, NEWPAP*, OLDPAP*
2DOTFAX	2DOTFAX	PLT2	1:20	FMANL, NEWPAP*, OLDPAP*
SIRSPLOT	NHEMI40	PLT3	1:20	GF12
	SHEMI40	PLT3	1:20	GF12

*Optional -- only needed if height changes are to be displayed.

**Forecasts from t=96 and beyond are expected to be in the DDNAME=F96 file.

If one chooses to have data plots only (IC=4), permitted (see above) map number combinations from Table 2 or Table 3 must still be specified on Card 1, VSETUP. Internally, a switch will be tested in the VARIAN program and will cause a bypass of the contouring subroutine.

Table 5. Format of Input Cards for DATAX20 or DESUAPAP (//SYSIN DD *):

Card 1.

Column 1, 1 signifies first card.
Columns (3 - 72, free form) KRUN=XXXXXX, NLVLS=N, IOPTN=1;
where: XXXXXX is a data prep file name selected from Table 4,
N is the number of levels where data should be prepared for plotting,
IOPTN=1; (do not change).

Card 2.

Column 1, 2 signifies second card.
Columns (3 - 72, free form) pppMB, pppMB, pppMB, etc. ;
where ppp's are set to the specific pressure levels
(there should be N entries, terminated with a semicolon).

Card 3.

Columns 1 - 3, 999 signifies last card.

TIROS Data

TIROS data files in NMC Office Note 29 format are not normally saved on any of run history tapes. However, the directories associated with the data dumps for the LFM, OPNL and FINAL runs are saved on the respective run history tapes, and the TIROS data in NMCEDS format is dumped to file 2 of the FINAL run history tape every 12 hours. But remember, all the run history tapes are overwritten monthly. A program (DEST29ZT) is available to process the TIROS data to O. N. 29 format from history tapes or from disk files (See Desmarais, or see Appendix A7).

Aircraft Data Plots

The data plotting preprocessor selects aircraft reports to be plotted at the various pressure levels according to the following altitude ranges:

Altitude (ft)	Level (mb)
2,900 - 7,000	850
7,000 - 12,000	700
15,000 - 20,000	500
27,900 - 34,000	300
32,000 - 38,000	250
34,000 - 41,000	200

VARIAN output file

The output file from the VARIAN program (See VARIANX procedure, Appendix A4) will be on FT01F001 and will be on a non-labelled 7-track tape by default. However, the file can reside on other devices, depending on what the user intends to do with the output that still has to be processed. The output file consists of many records that specify the instructions to the VARIAN recorder which is driven by a minicomputer on the 4th floor, WWB· this same file can be processed by a minicomputer in the OMCS Graphics Support Section to provide images on 35-mm film from 7- or 9-track tapes. The user can set the various output file parameters in the VARIANX procedure from the following table:

UNIT	VOUT	DEN	TRTCH	TFILE	DSN
TAPE9	user tape	DN=2	CH=''	u/s	Not required
NMCTP9	" "	DN=2	CH=''	u/s	" "
DISK	NWS255	DN=''	CH=''	n/u	TDSN='NWS.VFIL.Wxxx.name' where: xxx is user routing code, name is 1-8 characters
TAPE7	user tape	DN=2	CH=C	u/s	Not required

Note: n/u indicates not used; u/s = user specified.

TAPE7 and TAPE9 tapes have to be available in the OMCS tape library; NMCTP9 tapes must reside in the NMC library on the 3rd floor, FOB4, and are normally assigned to individuals for specific functions. If you need an NMCTP9 tape number, call Bill Glidewell, 763-5813, -- or maybe you can use someone else's tape number if it is not being used.

Automation Division has reserved some space on an online disk (NWS255) that can be used as a temporary staging area for files scheduled to be trans ferred, via the channel-to-channel interface (CTC), to the 3rd floor for semi-automatic hard copy processing. One should not catalog any data sets on NWS255 unless approved by Automation Division (Howcroft 763-8115). If DISK is selected to store the VARIAN output, the user must make sure that the last execution of the VARIANX procedure has either DISP=(NEW,KEEP) or DISP=(MOD,KEEP). Intermediate executions should have DISP=(MOD,PASS) if the output files are being concatenated. If the last KEEP is not specified the system will delete the disk file upon termination of the job (See sample JCL in Appendix 5 and 6).

Once all the codes have run, the user still has to determine the final steps to get the desired graphics...take you choice (and there are others):

VARIAN output is on	To get 35-mm film	To get VARIAN Charts
User TAPE7	Use WRTMIC Proc.	Use Copy TAPE7 to NMCTP9, or Use Copy TAPE7 to DISK and WWUPSTRS Proc.
User TAPE9	Use WRTMIC Proc.	Use Copy TAPE9 to NMCTP9, or Use Copy TAPE9 to DISK and WWUPSTRS Proc.
User NMCTP9	Copy from NMCTP9 to TAPE9, and use WRTMIC Proc.	Call NMC operator (763-5995) for VARIAN processing, and specify the number of maps expected. Most processes have IDENT=000 and one pass; hemispheric 1:20 million (SIRSPLOT) maps need 2 passes with IDENT=000 and 248.
DISK(NWS255)	Copy to TAPE9 prior to using WWUPSTRS proc., and use WRTMIC Proc.	Use WWUPSTRS.

The procedure WWUPSTRS (See sample, Appendix A5) will transfer a file from a specified disk pack to a reserved area on an NMC disk pack for semi-automatic processing. The designated NMC file names for checkout VARIAN are VFIL for single-pass maps and VFIL2 for 2-pass maps like the hemispheric 1:20 million SIRSPLOT maps. If space is not available on the NMC disk, the monitor system will copy the disk file to the designated NMCTP9 backup tape. The operator will process the backup tape after the files already in VFIL or VFIL2 have been processed and only if the processing does not interfere with operational VARIAN products or NMC digitizing. After a successful transfer of the user's disk file to NMC, the WWUPSTRS procedure will delete the user's disk file on the specified disk pack. IMPORTANT: the space available for VFIL or VFIL2 on the NMC disk pack is rather limited and should be able to accommodate about 10 maps, depending on how dense the images will be. If one needs more than 10 or so maps on hard copy, break up the processing into separate jobs. This limit does not apply to 35-mm film graphics.

WRTMIC Procedure

A sample JCL for the WRTMIC procedure follows:

```
//FILM EXEC WRTMIC,JOB=WEK,NAME=DESMARAIS,COCI='763-8161'
//   RTCDE='WWB4-D3,RM 202, W324',LAB=' 7T BLP',MM=35MM,
//   PRG='NEW VARIAN',TAPE='DA9999'
```

Copy Routine

Copying VARIAN output files from one device to another can be done using the IBM utiltity program IEBGENER (needs about 70K):

Example 1. TAPE7 to NMCTP9 (or to TAPE9)

```
//COPY  EXEC  PGM=IEBGENER
//SYSPRINT  DD  SYSOUT=A
//SYSIN  DD  DUMMY
//SYSUT1  DD  DISP=(OLD,PASS),UNIT=TAPE7,LABEL=(1,BLP,,IN),
//         DCB=(RECFM=F,LRECL=1440,BLKSIZE=1440,TRTCH=C,DEN=2),
//         VOL=SER=   ...user tape number, input
//SYSUT2 DD  DISP=(NEW,PASS),UNIT=NMCTP9,LABEL=(1,BLP,,OUT),
//         DCB=(RECFM=F,LRECL=1440,BLKSIZE=1440),
//         VOL=SER=   ...user tape number, output
//
```

Example 2. TAPE7 to DISK

```
//   ---  same as above, except
//SYSUT2  DD  DISP=(NEW,KEEP),UNIT=DISK,VOL=SER=NWS255,
//         DCB=(RECFM=F,LRECL=1440,BLKSIZE=1440),SPACE=(CYL,10),
//         DSN=NWS.VFIL.W324.DESMAPS   (use your routing code and short name)
```

Example 3. DISK to NMCTP9 (or TAPE9)

```
//COPY  EXEC  PGM=IEBGENER
//SYSPRINT  DD  SYSOUT=A
//SYSIN  DD  DUMMY
//SYSUT1  DD  DISP=(OLD,DELETE),UNIT=DISK,VOL=SER=NWS255,     (OR OLD,PASS)
//        DCB=(RECFM=F,LRECL=1440,BLKSIZE=1440),
//        DSN=NWS.VFIL.W324.DESMAPS   (example only)
//SYSUT2  DD  DISP=(NEW,PASS),UNIT=NMCTP9,LABEL=(1,BLP,,OUT),
//        DCB=*.SYSUT1,VOL=SER=   ...user tape number
//
```

ADDITIONAL PROGRAMMER NOTES:

APPENDIX

	Page
VSETUP Catalogued Procedure	A1
SEQ2RA Catalogued Procedure	A1
DATAX20 Catalogued Procedure	A2
DESUAPAP Catalogued Procedure	A3
VARIANX Catalogued Procedure	A4
Sample JCL's	
(1) Data plot and contours (disk, charts)	A5
(2) Multiple processes (tape, film)	A6
(3) Off-time S. Hem. TIROS-N Data Plots (disk, charts)	A8

VSETUP CATALOGUED PROCEDURE

```
//VSETUP  PROC  TEMP=
//*          TO SETUP CONTROL CARDS FOR INPUT TO VARIAN CODE
//*       USER SETS TEMP='---'              (TEMPORARY DATASET NAME)
//*  EXAMPLE              //STEP  EXEC VSETUP,TEMP='&&DECK1'
//*                       //SYSIN  DD   *
//*          EXPECTS DATA CARDS(SYSIN) WITH OPTIONS AND MAP NUMBERS
//*                        FOR FORMATS, SEE DESMARAIS.
//*          DESMARAIS,  NMC, DD, SEB.              OCT 12, 1977
//*                    MODIFIED 11 DEC 79.
//SETUP  EXEC  PGM=VSELECT
//STEPLIB  DD  DISP=SHR,DSN=W.NWS.W324.DES.FAX
//FT05F001  DD  DDNAME=SYSIN
//FT06F001  DD  SYSOUT=A
//FT09F001  DD DISP=SHR,DSN=W.NWS.W324DES.VCARD(VARCARDS),LABEL=(,,,IN)
//FT20F001  DD  UNIT=SYSDA,SPACE=(TRK,1),DSN=&TEMP,
//    DISP=(NEW,PASS),DCB=(RECFM=F,LRECL=80,BLKSIZE=80)
//SYSIN  DD   DUMMY                  (USER SUPPLIED)
//*  -----  END VSETUP PROC ----------------
```

SEQ2RA CATALOGUED PROCEDURE

```
//*  SEQ2RA --  PROCEDURE TO CONVERT A SEQUENTIAL FILE (NMC O.N. 84
//*             FORMAT) TO A RANDOM ACCESS FILE, WITH A MAXIMUM OF
//*             255 RECORDS.
//*                          DESMARAIS, NMC/DD/SEB    763-8161
//SEQ2RA  PROC  FILE=1,UNIT=TAPE9,LA=SL,DSN=DUMMY,FNAME='&&RAC'
//*
//*      WHERE    FILE=  FILE NO. ON INPUT TAPE          (DEFAULT = 1)
//*               UNIT = TYPE INPUT DEVICE(TAPE9,DISK,T6250,ETC)
//*                                                  (DEFAULT=TAPE9)
//*               LA =  SL, BLP, NL                  (DEFAULT= SL)
//*               DSN = DATASET NAME,INPUT(FT31)     (DEFAULT =DUMMY)
//*               VSER = VOL. NUMBER            (USER SUPPLIED)
//*               FNAME = DATASET NAME,OUTPUT(LFN)  (DEFAULT='&&RAC')
//S2R   EXEC  PGM=ASY2RACC
//STEPLIB  DD  DISP=SHR,DSN=W.NWS.W322DES.LOAD
//FT05F001  DD  DDNAME=SYSIN
//FT06F001  DD  SYSOUT=A
//FT31F001  DD  DISP=(SHR,PASS),UNIT=&UNIT,DSN=&DSN,
//    LABEL=(&FILE,&LA,,IN),VOL=SER=&VSER
//LFN   DD  DISP=(NEW,PASS),UNIT=SYSDA,SPACE=(CYL,9,RLSE,CONTIG),
//      DSN=&FNAME                  ---   OUTPUT FILE
//SYSIN DD DISP=SHR,DSN=NWS.NMC.DDIVDAB.SOURC1(BLANK),LABEL=(,,,IN)
//*      ---------      END SEQ2RA PROCEDURE ----------------
```

DATAX20 CATALOGUED PROCEDURE

```
//*      DATAX20  ---      PREPARE DATA FOR VARIAN PLOTS.
//*       USER ACTIVATES DESIRED FILES.
//*        EOFVS  AND  NULLRA   ARE EMPTY FILES.......
//*    OLDPAP AND NEWPAP REQUIED ONLY IF HEIGHT CHANGES NEEDED.
//*                                DESMARAIS,NMC,DD,SEB    11 DEC 79
//DATAX20  PROC    PROG=PLOTX22,STPLIB='NWS.NMC.GRAPHICS.LOAD',
//    GES='W.NWS.W324DES.NULLRA',                    A MUST FILE
//    F14='W.NWS.W324DES.EOFVS',                   OR AIRCFT FILE
//    F15='W.NWS.W324DES.EOFVS',                   OR TIROS(Z1000=0)
//    F18='W.NWS.W324DES.EOFVS',                   OR UPABOG
//    F19='W.NWS.W324DES.EOFVS',                   OR ADPUPA
//    F22='W.NWS.W324DES.EOFVS',                   OR SATWND
//    NEWPAP='W.NWS.W324DES.NULLRA',               DEFAULT, EMPTY
//    OLDPAP='W.NWS.W324DES.NULLRA',               DEFAULT, EMPTY
//    ANL1='W.NWS.W324DES.NULLRA',              FOR 65*65 Z1000(TIROS)
//    GES='W.NWS.W324DES.NULLRA',              FOR 65*65 Z1000,BACKUP
//    ANL5='W.NWS.W324DES.NULLRA'             FOR TIROS (F15) REF. LEVEL,SH
//*
//ZERO    EXEC   PGM=ZROFLS
//STEPLIB   DD   DISP=SHR,DSN=NWS.NMC.PROD.ALOAD
//JOBLOG   DD   DISP=SHR,DSN=NWS.NMC.PROD.LOG
//GES   DD   DISP=SHR,DSN=&GES
//GRANPA   DD   DISP=(NEW,PASS),UNIT=SYSDA,SPACE=(CYL,10,,CONTIG),
//         DSN=&&GRANPA
//FT05F001   DD   DDNAME=SYSIN
//FT06F001   DD   SYSOUT=A
//FT06F001   DD   DUMMY
//SYSIN   DD DISP=SHR,DSN=W.NWS.W324DES.L7S(GRANPA),LABEL=(,,,IN)
//*      ------------------------------------------------------
//DATA4PLT   EXEC   PGM=&PROG,                                27 MAR 81
//         PARM='00000000000000000000000010001'          FOR NEWPAP+OLDPAP
//STEPLIB   DD   DISP=SHR,DSN=&STPLIB,
//JOBLOG   DD   DISP=SHR,DSN=NWS.NMC.PROD.LOG
//GRANPA   DD   DISP=(OLD,PASS),DSN=&&GRANPA
//FT05F001   DD   DDNAME=SYSIN
//FT06F001   DD   SYSOUT=A
//FT14F001   DD   DISP=SHR,DSN=&F14
//FT15F001   DD   DISP=SHR,DSN=&F15                          FOR TIROS
//*                         UNIT=DISK,VOL=SER=NWS251          --------
//FT18F001   DD   DISP=SHR,DSN=&F18
//FT19F001   DD   DISP=SHR,DSN=&F19
//FT22F001   DD   DISP=SHR,DSN=&F22
//FT24F001   DD   DUMMY
//FT50F001   DD   DUMMY
//NEWPAP   DD   DISP=SHR,DSN=&NEWPAP
//OLDPAP   DD   DISP=SHR,DSN=&OLDPAP
//ANL1   DD   DISP=SHR,DSN=&ANL1
//GES   DD   DISP=SHR,DSN=&GES
//ANL5   DD   DISP=SHR,DSN=&ANL5                   FOR TIROS REF. LEVEL
//FT55F001   DD DISP=(NEW,PASS),UNIT=SYSDA,DSN=&&FILI54,
//   DCB=(RECFM=VS,LRECL=8500,BLKSIZE=8500,BUFNO=2),
//    SPACE=(8500,(30,1))
//SYSIN   DD   DUMMY                (USER SUPPLIED)
//*        ----------     END OF PROCEDURE   ------------------------
```

DESUAPAP CATALOGUED PROCEDURE

```
//*   DESUAPAP      -----        DESMARAIS, NMC, DD       763-8161
//*     ON   USER.PROCLIB        AS OF 27 MAR.  1981
//DESUAPAP   PROC  PROG=PLOTX22,STPLIB='NWS.NMC.GRAPHICS.LOAD',
//     GES='W.NWS.W324DES.NULLRA',                          (DEFAULT,EMPTY)
//     FT12='W.NWS.W324DES.EOFVS',                ADPSFC, DEFAULT EMPTY
//     FT14='W.NWS.W324DES.EOFVS',                AIRCFT, DEFAULT EMPTY
//     FT15='W.NWS.W324DES.EOFVS',                TIROS, DEFAULT EMPTY
//     FT16='W.NWS.W324DES.EOFVS',                UPABOG, DEFAULT EMPTY
//     FT19='W.NWS.W324DES.EOFVS',                ADPUPA---A MUST FILE
//     FT22='W.NWS.W324DES.EOFVS',                SATWND, DEFAULT EMPTY
//    ANL1='W.NWS.W324DES.NULLRA',                  FOR 65*65 Z1000 FLD
//     ANL5='W.NWS.W324DES.NULLRA',          FOR TIROS IN S.HEM
//     GES='W.NWS.W324DES.NULLRA',                  FOR 65*65 Z1000,BACKUP
//     OLDPAP='W.NWS.W324DES.NULLRA'              DEFAULT-- EMPTY FILE
//*          ------------------------------------------
//ZERO  EXEC  PGM=ZROFLS
//STEPLIB  DD  DISP=SHR,DSN=NWS.NMC.PROD.ALOAD
//JOBLOG  DD  DISP=SHR,DSN=NWS.NMC.PROD.LOG
//FT05F001  DD  DDNAME=SYSIN
//FT06F001  DD  DUMMY
//GES  DD  DISP=SHR,DSN=&GES
//GRANPA  DD  UNIT=SYSDA,SPACE=(CYL,5),DISP=(NEW,PASS),DSN=&&GRANPA
//NEWPAP  DD  DISP=(NEW,PASS),UNIT=SYSDA,SPACE=(CYL,10),DSN=&&NEWPAP
//SYSIN DD DISP=SHR,DSN=W.NWS.W324DES.L7S(ZERO2),LABEL=(,,,IN)
//*          ------------------------------------------
//PAP  EXEC  PGM=LFMUPAP                     GENERATE NEWPAP DATA
//STEPLIB  DD  DISP=SHR,DSN=NWS.NMC.PROD.BLOAD
//JOBLOG  DD  DISP=SHR,DSN=NWS.NMC.PROD.LOG
//NEWPAP  DD  DISP=(OLD,PASS),DSN=&&NEWPAP
//GES  DD  DISP=SHR,DSN=&GES
//FT06F001  DD  SYSOUT=A
//FT09F001  DD   SYSOUT=A
//FT12F001  DD  DISP=SHR,DSN=&FT12                          (ADPSFC)
//FT14F001  DD  DISP=SHR,DSN=&FT14                          (AIRCFT)
//FT15F001  DD  DUMMY
//FT16F001  DD  DISP=SHR,DSN=&FT16                          (UPABOG)
//FT19F001  DD  DISP=SHR,DSN=&FT19                          (ADPUPA)
//FT22F001  DD  DISP=SHR,DSN=&FT22                          (SATWND)
//*          ------------------------------------------
//*              .........   GENERATE &&FILI54,  FOR VARIAN PLOTS......
//*   .........   CHECK VALUES FOR PARM ...........
//PLOTPAP  EXEC    PGM=&PROG,PARM='00000000000000000000000010001'
//STEPLIB  DD  DISP=SHR,DSN=&STPLIB
//JOBLOG  DD  DISP=SHR,DSN=NWS.NMC.PROD.LOG
//GRANPA  DD  DISP=(OLD,PASS),DSN=&&GRANPA
//NEWPAP  DD  DISP=(OLD,PASS),DSN=&&NEWPAP
//OLDPAP  DD  DISP=SHR,DSN=&OLDPAP
//FT05F001  DD  DDNAME=SYSIN
//FT06F001  DD  SYSOUT=A
//FT14F001  DD  DISP=SHR,DSN=&FT14                          (AIRCFT)
//FT15F001  DD  DISP=SHR,DSN=&FT15                              (TIROS)
//FT18F001  DD  DISP=SHR,DSN=&FT16                              (UPABOG)
//FT19F001  DD  DISP=SHR,DSN=&FT19                          (ADPUPA)
//FT22F001  DD  DISP=SHR,DSN=&FT22                          (SATWND)
//ANL1  DD  DISP=SHR,DSN=&ANL1                  FOR 65*65 Z1000
//GES   DD  DISP=SHR,DSN=&GES                   FOR 65*65 Z1000,BACKUP
//ANL5  DD  DISP=SHR,DSN=&ANL5              FOR SAT. SOUNDINGS IN S.H.
//FT50F001  DD  DUMMY                          (ONLY NEEDED FOR AFOS)
//FT55F001  DD  DISP=(NEW,PASS),UNIT=SYSDA,SPACE=(8200,(30,1)),
//  DCB=(RECFM=VS,LRECL=8196,BLKSIZE=4108,BUFNO=1),DSN=&&FILI54
//SYSIN  DD  DUMMY                  (USER SUPPLIED)
//*          ------------------------------------------
//*       ------   END OF DESUAPAP  PROCEDURE   ---------
//*     -------
```

VARIANX CATALOGUED PROCEDURE

```
//*     -------
//*          VARIANX              DESMARAIS, NMC, DD,  763-8161
//*                                        OCT. 12, 1977
//*       ADDED  FT54 (FOR ADP PLOTS)     29 AUG 79.   DESMARAIS
//*    FOR UN=TAPE9 OR NMCTP9,  USE CH=' ',DN=2
//*    FOR DISK,  USE  CH=' ',DN=' ',  AND SET DATASET NAME
//*
//VARIANX  PROC UN=TAPE7,TFILE=1,VOUT=,TEMP=,CH=C,DN=2,
//     PROG=DESFAX,STEPL='W.NWS.W324.DES.FAX',
//   ANL1='W.NWS.W324DES.NULLRA',
//   FMANL='W.NWS.W324DES.NULLRA',
//   FM00='W.NWS.W324DES.NULLRA',
//   FM12='W.NWS.W324DES.NULLRA',
//   FM24='W.NWS.W324DES.NULLRA',
//   FM36='W.NWS.W324DES.NULLRA',
//   FM48='W.NWS.W324DES.NULLRA',
//   ANL='W.NWS.W324DES.NULLRA',
//   F00='W.NWS.W324DES.NULLRA',
//   F12='W.NWS.W324DES.NULLRA',
//   F24='W.NWS.W324DES.NULLRA',
//   F36='W.NWS.W324DES.NULLRA',
//   F48='W.NWS.W324DES.NULLRA',
//   F60='W.NWS.W324DES.NULLRA',
//   F72='W.NWS.W324DES.NULLRA',
//   F84='W.NWS.W324DES.NULLRA',
//   F96='W.NWS.W324DES.NULLRA',
//   ANL5='W.NWS.W324DES.NULLRA',
//   GF12='W.NWS.W324DES.NULLRA',
//   GF24='W.NWS.W324DES.NULLRA',
//   ADP='W.NWS.W324DES.EOFVS',          EMPTY FILE (DEFAULT)
//    TDSN=DUMMY
//*
//VARIAN  EXEC  PGM=&PROG
//STEPLIB  DD  DISP=SHR,DSN=&STEPL
//FT05F001  DD  DISP=(OLD,PASS),DSN=&TEMP        DATA CARD FILE
//FT06F001  DD  SYSOUT=A
//ANL1    DD  DSN=&ANL1,DISP=SHR                  FOR RADAT
//FMANL   DD  DSN=&FMANL,DISP=SHR                 LFM
//FM00    DD  DSN=&FM00,DISP=SHR                  LFM
//FM12    DD  DSN=&FM12,DISP=SHR                  LFM
//FM24    DD  DSN=&FM24,DISP=SHR                  LFM
//FM36    DD  DSN=&FM36,DISP=SHR                  LFM
//FM48    DD  DSN=&FM48,DISP=SHR                  LFM
//ANL   DD  DSN=&ANL,DISP=SHR                     OPNL
//F00   DD  DSN=&F00,DISP=SHR                     OPNL
//F12   DD  DSN=&F12,DISP=SHR                     OPNL
//F24   DD  DSN=&F24,DISP=SHR                     OPNL
//F36   DD  DSN=&F36,DISP=SHR                     OPNL
//F48   DD  DSN=&F48,DISP=SHR                     OPNL
//F60   DD  DSN=&F60,DISP=SHR                     EXT. PE
//F72   DD  DSN=&F72,DISP=SHR                     EXT. PE
//F84   DD  DSN=&F84,DISP=SHR                     EXT. PE
//F96   DD  DSN=&F96,DISP=SHR                     EXT. PE
//ANL5    DD  DSN=&ANL5,DISP=SHR                  FINAL
//GF12    DD  DSN=&GF12,DISP=SHR                  FINAL
//GF24    DD  DSN=&GF24,DISP=SHR                  FINAL
//FT54F001 DD DISP=(SHR,PASS),DSN=&ADP          (FOR ADP PLOTS, IF REQ'D)
//FT55F001 DD DCB=(RECFM=VS,LRECL=8500,BLKSIZE=8500,BUFNO=2),
//   UNIT=SYSSQ,DISP=(NEW,DELETE),SPACE=(8500,(30,1))
//FT60F001 DD DCB=*.FT55F001,
//   UNIT=SYSSQ,DISP=(NEW,DELETE),SPACE=(8500,(30,1))
//FT61F001 DD DCB=*.FT55F001,
//   UNIT=SYSSQ,DISP=(NEW,DELETE),SPACE=(8500,(30,1))
//FT62F001 DD DCB=*.FT55F001,
//   UNIT=SYSSQ,DISP=(NEW,DELETE),SPACE=(8500,(30,1))
//FT63F001 DD DCB=*.FT55F001,
//   UNIT=SYSSQ,DISP=(NEW,DELETE),SPACE=(8500,(30,1))
//FT01F001  DD  DISP=(NEW,PASS),UNIT=&UN,VOL=SER=&VOUT,
//   DCB=(RECFM=F,LRECL=1440,BLKSIZE=1440,DEN=&DN,TRTCH=&CH),
//     SPACE=(CYL,10),
//    LABEL=(&TFILE,BLP,,OUT),DSN=&TDSN
//FT02F001  DD  DISP=SHR,DSN=NWS.NMC.PROD.GRAFBGND
//FT09F001  DD  DUMMY
//*       ------      END OF VARIANX PROCEDURE  -----
```

SAMPLE JCL -- DATA PLOTS AND CONTOURS (DISK,CHARTS)

```
//    REGION=600K,CLASS=I,TIME=2
//SCR   EXEC  PGM=IEFBR14
//OLD   DD  DISP=(OLD,DELETE),UNIT=DISK,DSN=NWS.VFIL.W324DES.AIDS,
//      VOL=SER=NWS255
//*     ------------------------------------------------------------
//*     ------------------------------------------------------------
//*     FOR 1:20 AND 1:40 MILLION PLOTS, PLOTX22 ADDS Z1000 HGTS(TIROS)
//DATAX  EXEC  DATAX20,                  PREP DATA FOR DATAPLOT
//    F14='NWS.NMC.W324DES.AIDS1',                    12Z, 15 JAN 79 CASE
//    F19='NWS.NMC.W324DES.ADPUPA',
//    ANL1='NWS.NMC.W324DES.CPYOANL',          FOR 65*65 Z1000, TIROS
//    GES='NWS.NMC.W324DES.CPYOGES',
//   ANL5='W.NWS.W324DES.NULLRA'            NEEDED FOR Z1000 S.H. TIROS
//DATA4PLT.SYSIN  DD  *
1     KRUN = NHEMI40, NLVLS = 3,  IOPTN = 1;
2     300MB, 250MB, 200MB;
999                 LAST INPUT CARD .......
/*
//SETUP  EXEC  VSETUP,TEMP='&&DECK1'
//SYSIN  DD  *
OPN 30603604606
 300  40  BIN D-3. DESMARAIS,  OPERATIONAL RUN  (AIDS OVER-PLOTTED)
/*
//MAPS  EXEC  VARIANX,
//   UN=DISK,VOUT=NWS255,DN='',CH='',
//    TEMP='&&DECK1',
//    ANL='NWS.NMC.W324DES.CPYOANL',
//      ADP='&&FILI54',
//    TDSN='NWS.VFIL.W324DES.AIDS'           DISK DATASET NAME
//VARIAN.FT01F001  DD  DISP=(NEW,KEEP)
//*     ------------------------------
//*     ------------------------------------------------------------
//UP EXEC WWUPSTRS,K='VFIL     ',V=DA9999,UNIT=NMCTP9,LOADSET=B,
//   S=X,D='NWS.VFIL.W324DES.AIDS'
//XMIT  DD  DISP=(OLD,KEEP),DSN=&D,VOL=SER=NWS255,UNIT=DISK
//
```

SAMPLE JCL -- OFF-TIME S. HEM. TIROS-N DATA PLOTS (DISK,CHARTS)

```
//    REGION=600K,TIME=3,MSGLEVEL=(2,0)
//*FORMAT  PR,DDNAME=,DEST=WWB3729
//*       MULTIPLE PROCESSES, OUTPUT CONCATENATED ON TAPE......
//DATA1  EXEC  DATAX20,                          PREP DATA FOR VARIAN PLOT
//    F14='NWS.NMC.W324.AIRCFT',
//    F19='NWS.NMC.W324.ADPUPA',                      F19--A MUST FILE
//    F22='NWS.NMC.W324.SATWND',
//    GES='NWS.NMC.W324.GES',
//    ANL1='NWS.NMC.W324.ANL5',
//    ANL5='NWS.NMC.W324.ANL5'
//DATA4PLT.SYSIN  DD  *
1     KRUN = NHEMI40, NLVLS = 2,  IOPTN = 1;
2     250MB, 100MB;
999                 LAST INPUT CARD .......
/*
//SETUP1  EXEC  VSETUP,TEMP='&&DECK1'
//SYSIN  DD  *
FIN 31901933907936
 300  40 BIN D3.  SATELLITE IMPACT TEST.   SAT MODE
/*
//MAPS1  EXEC  VARIANX,
//     VOUT=DA9999,                          (USER TAPE NUMBER)
//    TEMP='&&DECK1',
//     ADP='&&FILI54',
//    ANL='NWS.NMC.W324.ANL5',
//    ANL5='NWS.NMC.W324.ANL5',
//    TDSN='NWS.VFIL.W324DES.IMPACT'                 DISK DATASET NAME
//VARIAN.FT01F001  DD  DISP=(NEW,PASS)
//DEL1  EXEC  PGM=IEFBR14
//XA  DD  DISP=(OLD,DELETE),DSN=&&GRANPA
//XB  DD  DISP=(OLD,DELETE),DSN=&&FILI54
//*     ==============                 ==============          ==========
//DATA2  EXEC  DATAX20,                          PREP DATA FOR VARIAN PLOT
//    F19='NWS.NMC.W324DES.T29NW',                    TIROS, HGTS
//    ANL1='NWS.NMC.W324.ANL5',
//    ANL5='NWS.NMC.W324.ANL5',
//    GES='NWS.NMC.W324.GES'
//DATA4PLT.SYSIN  DD  *
1     KRUN = NHEMI40, NLVLS = 2,  IOPTN = 1;
2     500MB, 250MB;
999                 LAST INPUT CARD .......
/*
//SETUP2  EXEC  VSETUP,TEMP='&&DECK2'
//SYSIN  DD  *
FIN 41904935
 300  40 BIN D3.        DATA PLOT ONLY.          HEIGHTS
/*
//MAPS2  EXEC  VARIANX,
//     VOUT=DA9999,                          (USER TAPE NUMBER)
//    TEMP='&&DECK2',
//     ADP='&&FILI54',
//    ANL='NWS.NMC.W324.ANL5',
//    ANL5='NWS.NMC.W324.ANL5',
//    TDSN='NWS.VFIL.W324DES.IMPACT'                 DISK DATASET NAME
//VARIAN.FT01F001  DD  DISP=(MOD,PASS)
//DEL2  EXEC  PGM=IEFBR14
//XA  DD  DISP=(OLD,DELETE),DSN=&&GRANPA
//XB  DD  DISP=(OLD,DELETE),DSN=&&FILI54
//*     ==============                 ==============          ==========
//DATA3  EXEC  DATAX20,                          PREP DATA FOR VARIAN PLOT
//    F14='NWS.NMC.W324.AIRCFT',
//    F19='NWS.NMC.W324.ADPUPA',                      F19--A MUST FILE
//    F22='NWS.NMC.W324.SATWND',
//    GES='NWS.NMC.W324.GES',
//    ANL1='NWS.NMC.W324.ANL5',
//    ANL5='NWS.NMC.W324.ANL5'
//DATA4PLT.SYSIN  DD  *
1     KRUN = SHEMI40, NLVLS = 1,  IOPTN = 1;
2    250MB;
999                 LAST INPUT CARD .......
/*
//SETUP3  EXEC  VSETUP,TEMP='&&DECK3'
//SYSIN  DD  *
FINS31923920
 300  40 BIN D3.  SATELLITE IMPACT TEST.   SAT MODE
/*
//MAPS3  EXEC  VARIANX,
//     VOUT=DA9999,                          (USER TAPE NUMBER)
//    TEMP='&&DECK3',
//     ADP='&&FILI54',
```

```
//    ANL='NWS.NMC.W324.ANL5',
//    ANL5='NWS.NMC.W324.ANL5',
//    TDSN='NWS.VFIL.W324DES.IMPACT'                    DISK DATASET NAME
//VARIAN.FT01F001  DD  DISP=(MOD,PASS)
//DEL3  EXEC  PGM=IEFBR14
//XA  DD  DISP=(OLD,DELETE),DSN=&&GRANPA
//XB  DD  DISP=(OLD,DELETE),DSN=&&FILI54
//*     ==============                ==============          ==========
//DATA4  EXEC  DATAX20,                          PREP DATA FOR VARIAN PLOT
//    F19='NWS.NMC.W324DES.T29NW',                  TIROS HGTS
//    GES='NWS.NMC.W324.GES',
//    ANL1='NWS.NMC.W324.ANL5',
//    ANL5='NWS.NMC.W324.ANL5'
//DATA4PLT.SYSIN  DD  *
1     KRUN = SHEMI40, NLVLS = 1,  IOPTN = 1;
2    250MB;
999                 LAST INPUT CARD .......
/*
//SETUP4  EXEC  VSETUP,TEMP='&&DECK4'
//SYSIN  DD  *
FINS40923
 300  40 BIN D3.        DATA PLOT ONLY.        HEIGHTS
/*
//MAPS4  EXEC  VARIANX,
//     VOUT=DA9999,                        (USER TAPE NUMBER)
//    TEMP='&&DECK4',
//     ADP='&&FILI54',
//    ANL='NWS.NMC.W324.ANL5',
//    ANL5='NWS.NMC.W324.ANL5',
//    TDSN='NWS.VFIL.W324DES.IMPACT'                    DISK DATASET NAME
//VARIAN.FT01F001  DD  DISP=(MOD,KEEP)
//DEL4  EXEC  PGM=IEFBR14
//XA  DD  DISP=(OLD,DELETE),DSN=&&GRANPA
//XB  DD  DISP=(OLD,DELETE),DSN=&&FILI54
//*     ==============                ==============          ==========
//EXTRA  DD  DATA       MISC. CARDS FOLLOW ................
//  UN=DISK,VOUT=NWS255,DN='',CH='',
//  UN=TAPE9,VOUT=DA9997,DN=2,CH='',
//  UN=NMCTP9,VOUT=DA9998,DN=2,CH='',
/*              END      MISC. CARDS   ......................
//
```

SAMPLE JCL -- MULTIPLE PROCESSES (TAPE, FILM)

```
//    REGION=600K,CLASS=E,TIME=3
//*     GANL6, PLUS 65*65 FIELDS  ....  IN   W324DES.F00
//SCR   EXEC  PGM=IEFBR14
//OLD   DD  DISP=(OLD,DELETE),UNIT=DISK,VOL=SER=NWS255,
//      DSN=NWS.VFIL.W324DES.VTEST
//*       NEED TO LOAD NECESSARY ADP FILES  ........
//AA   EXEC  WWLDFNL,DATE=16,CYCLE=00,ADPUP6=,TSDCT6=
//*      ==========                ==========                ==========
//GESER  EXEC  PGM=DESGESER
//STEPLIB  DD  DISP=SHR,DSN=W.NWS.W322DAC.LOAD
//FT06F001  DD  SYSOUT=A
//GES   DD  UNIT=SYSDA,SPACE=(CYL,1),DISP=(NEW,PASS),DSN=&&GES
//FT10F001  DD  DISP=(OLD,PASS),DSN=&&ADPUP6
//*      ==========                ==========                ==========
//TIROS  EXEC  PGM=IEBGENER
//SYSPRINT  DD  SYSOUT=A
//SYSUT1  DD  DISP=(SHR,PASS),UNIT=TAPE9,DSN=TIROSN,LABEL=(2,SL,,IN),
//    VOL=REF=*.AA.LOAD.FT01F001
//SYSUT2  DD  UNIT=SYSDA,SPACE=(CYL,35),DSN=&&NMCEDS,
//    DCB=(RECFM=FB,LRECL=280,BLKSIZE=6440),DISP=(NEW,PASS)
//SYSIN  DD  DUMMY
//*      ------------------------------------------------------------
//*      ==========                ==========                ==========
//T29ZT  EXEC  PGM=DEST29ZT,COND=(4,LT)
//STEPLIB  DD  DISP=SHR,DSN=W.NWS.W324DES.LTIROS2
//FT05F001  DD  DDNAME=SYSIN
//FT06F001  DD  SYSOUT=A
//JOBLOG  DD  DUMMY
//FT88F001  DD  DISP=(OLD,PASS),DSN=&&TSDCT6
//FT89F001  DD  DISP=(OLD,PASS),DSN=&&NMCEDS
//FT30F001  DD  DISP=(OLD,PASS),DSN=&&ADPUP6
//FT11F001  DD  DISP=(NEW,PASS),UNIT=SYSDA,SPACE=(CYL,30),DSN=&&TIROS
//LFN   DD  DISP=SHR,DSN=NWS.NMC.W324DES.F00          (2.5 1000Z)
//LFN   DD  DISP=SHR,DSN=W.NWS.W324DES.NULLRA      EMPTY R/A FILE
//SYSIN  DD  *        (BASE TIME DETERMINED BY FT30....)
 -300  259  7 1  7 2   0. -90. 360.   0.   1            HGTS
/*
//*      ==========                ==========                ==========
//TRYIT    EXEC    DATAX20,
//    ANL1='NWS.NMC.W324DES.F00',
//        GES='&&GES',
//    ANL5='NWS.NMC.W324DES.F00',
//    F19='&&TIROS'
//DATA4PLT.SYSIN  DD  *
1     KRUN = SHEMI40, NLVLS = 3,  IOPTN = 1;
2    250MB, 200MB, 100MB;
999                 LAST INPUT CARD .......
/*
//*      ==========                ==========                ==========
//*      ==========                ==========                ==========
//SETUP  EXEC  VSETUP,TEMP='&&DECK1'
//SYSIN  DD  *
FINS40942944956
 300  40  BIN D-3,  DESMARAIS.
/*
//*      ==========                ==========                ==========
//MAPS  EXEC  VARIANX,
//   UN=DISK,VOUT=NWS255,DN='',CH='',
//    ANL5='NWS.NMC.W324DES.F00',
//    ANL='NWS.NMC.W324DES.F00',
//     TEMP='&&DECK1',ADP='&&FILI54',
//    TDSN='NWS.VFIL.W324DES.VTEST'              DISK DATASET NAME
//VARIAN.FT01F001  DD  DISP=(NEW,KEEP)
//*      -------
//*      ==========                ==========                ==========
//UP EXEC WWUPSTRS,K='VFIL     ',V=DA9999,UNIT=NMCTP9,LOADSET=B,
//   S=2,D='NWS.VFIL.W324DES.VTEST'
//XMIT  DD  DISP=(OLD,KEEP),DSN=&D,VOL=SER=NWS255,UNIT=DISK
//
```

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL WEATHER SERVICE
[redacted]
National Meteorological Center
OA/W324 - Room 202
World Weather Building
Washington, D. C. 20233

OA/W324/AJD

April 14, 1981

TO : Recipients of NMC Office Note 230

FROM : OA/W324 - A. J. Desmarais A.J.D.

SUBJECT: Correction for Table 3, NMC Office Note 230

Map numbers 621, 634, 642, 829 and 830 as specified in Table 3 (page 5) of NMC Office Note 230 were incorrectly assigned to Trop. Streams and Trop. Isotachs. These numbers should be assigned to Precip. Amt. for the same time periods.

Kindly make a correction to Table 3 or replace page 5 with a corrected version (attached).

Attachment

TABLE 3.

			OPERATIONAL									EXTENDED						
			ANL 00	F00 06	F12 12	F12 18	F24 24	F24 30	F36 36	F36 48	F48 60	F60 72	F72 84	F84 96	F96 120	F96 144	F96 168	F96
SFC Pres. Chg.																		
MSL Pres.			693		694													
MSL Pres.	and	1000-500 THKNS	601	701	615	623	624	665	636	645		808	809	833	834	835		
MSL Pres.	and	1000-300 THKNS																
1000 HGT	and	1000-500 THKNS																
1000 HGT	and	1000-250 THKNS																
850 HGT	and	850 TEMP	649		652		673		674	675		810	811					
850 HGT	and	850-500 THKNS					659											
850 HGT	and	850 Isotachs			651		660		676	677		812						
850 RH																		
700 HGT	and	700 TEMP	650				680			681								
700 HGT	and	700 Isotachs			654		662		666	679		813						
700 HGT	and	SIGLIRH																
700 HGT Vert. Vel.							661		667	678								
500 HGT	and	500 TEMP	602		653		690		691	692		814						
500 HGT	and	500 Vorticity	607	702	618	706	629		638	646		815	816					
500 HGT	and	500 Isotachs	697		655		663		640	648		818	819					
500 HGT Vorticity							653		634	647	801	802	803 817	804	805	806	807	
500 RH																		
500 HGT Error									669									
500 Lifted Index			608		617		628		637	643								
500 HGT Change																		
300 HGT	and	300 TEMP	611				632		685	686		822	832					
300 HGT	and	300 Isotachs	603		616		625		668	684		821	831					
250 HGT	and	250 TEMP	605				627											
250 HGT			700															
250 HGT	and	250 Isotachs	604	704	620	699	626		641	687		823	824					
200 HGT	and	200 TEMP	612				633											
200 HGT	and	200 Isotachs	606		656		664											
100 HGT	and	100 TEMP	610				631			689		827	828					
100 HGT	and	100 Isotachs	609				630			688		825	826					
50 HGT	and	50 TEMP	698															
SIGLIRH	and	6-hr. 700 Vert. Vel.	613															
SIGLIRH	and	700 Vert. Vel.		703	619	707	622		635	644		820	836					
[illegible]cip. Amt.				705	61[illegible]	[illegible]	621		634	642		829	830					
[illegible]p. Streams	and	Trop. Isotachs				651												
Trop. Pres.	and	Trop. Wind Shear	695			658	696											