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SHARE PROGRAM LIBRARY SUBMITTAL FORM

SHARE PROGRAM LIBRARY AGENCY  
Triangle Universities Computation Center  
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SPLA CONTROL NUMBER: SR-195

This form should be completed and submitted with the program package to the SHARE Program Library Agency at the address shown above. Standards and instructions for submitting programs are in the "SHARE Reference Manual".

- (1) Program Number (to be filled in by SPLA)..... 360D-17.4.004
- (2) System Type (machine)..... S/360, S/370
- (3) Search Key..... CAMIVA
- (4) Programming Systems/Languages..... FORTRAN and Assembler
- (5) Author's Name and Address..... William G. Schenk  
AFTAC/ADOS, Bldg 989  
Patrick AFB, FL 32925
- (6) Direct Technical Inquiries to Name & Address  
(if different than Author) \_\_\_\_\_
- (7) Title of Program..... Cartographic Automatic Mapping System
- (8) Submitter's Installation Membership Code..... AFT
- (9) Submitter's Own Program Identification and Suffix(Optional) .. \_\_\_\_\_
- (10) Primary Subject Code..... 17 4
- (11) Minimum System Requirements 360/OS and Plotter
- (12) New or Revision Code (if revision, show prior Program Number in Item 1) New
- (13) Year Completed..... 1975
- (14) Date of Submittal..... 15 June 1976
- (15) Documentation (number of original pages submitted)..... 4
- (16) Abstract (should contain sufficient information for a reader to determine the value of the program). Listed on the reverse side of this form are subjects which may serve as a guide for a descriptive abstract.

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Subject Guide:

- a. Purpose
- b. Programming Language used
- c. Version and modification level or release number
- d. Field of application
- e. Type of routine (main program, subroutine, etc.)
- f. Specific description of machine requirements

**ABSTRACT**

CAMIVA is an IBM System 360 FORTRAN program that performs a wide variety of cartographic plotting tasks. It will connect points with straight lines or great circles and draw line grids, range rings, ellipses, cones, azimuths, and a host of other map features. Included also are a selection of 17 map projections that can be used in conjunction with World Data Bank I. The structure of CAM is modular to permit the easy addition of new features or subroutines to read data in a different format.

**DISCLAIMER**

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(Please attach additional pages if necessary).....Total pages attached \_\_\_\_\_

**Permission to Publish**

"I hereby give the SHARE Program Library Agency permission to reprint, reproduce, and distribute this program."

(17) Signature of Submitter and Date William H. Schryer 15 June 76

(18) Signature of Installation Addressee Norman W. Snyder

## Comments and Instructions Concerning CAM

1. The Cartographic Automatic Mapping system which is contained on this tape has the following requirements:

- a. One 2314 Disk Pack. This pack should be labeled and initialized.
- b. 200K of IBM memory to execute the program.
- c. A Calcomp plotter or Gould plotter/printer (electrostatic).

2. Tape number one (1) contains twelve files. *(Each file has header & trailer records; therefore 36 tape files)* The first eight files are PDS's which were unloaded by IEHMOVE. The last four are data sets for Data Bank I unloaded by IEHMOVE. The PDS and data set names are:

<u>FILE</u>	<u>NAME</u>	<u>TYPE</u>
1	CAMII.JCL	PDS
2	CAMII.LEL	PDS
3	CAMII.LOAD	PDS
4	CAMII.OBJECT	PDS
5	CAMII.SAMPLE	PDS
6	CAMII.SOURCE	PDS
7	NOT USED	
8	CAMII.WRITEUP	PDS
9	COASTLINE	PS
10	BOUNDARY	PS
11	SBOUND	PS
12	TOPO DATA	PS

File 1, CAM.JCL, contains the JCL necessary to execute the program. Member CAMGOULD is for the Gould printer/plotter and member CAMJCL is for the Calcomp plotter.

File 2, CAMII.LEL, contains the linkage editor cards to relink the object code should it be necessary. CAUTION: The program is overlaid and requires a large size linkage editor (128K).

File 3, CAMII.LOAD, contains the executable load modules and also the program necessary to print the user's guide.

File 4, CAMII.OBJECT, contains all object code generated by the compilers.

File 5, CAMII.SAMPLE, contains some examples of maps produced by CAM.

File 6, CAMII.SOURCE, contains all source code, both Assembler and FORTRAN. FORTRAN H compiler options must be: PARM='OPT=2,MAP,XREF,XL'

NOTE: Module names are preceeded by A or F indicating ALC or FORTRAN. This letter must be dropped when compiling into OBJECT.  
(i.e. SOURCE NAME=ACLOCK, OBJECT NAME=CLOCK)

File 8, CAMII.WRITEUP, contains the user's guide.

Files 9, 10, and 11 contain Data Bank I. This data is accurate to within approximately 5 miles of true location.

File 12 contains a tabulation of land elevations and ocean depths on a one degree grid. The accuracy is about 100 meters.

4. Attachment 2 contains the JCL to obtain a copy of the CAM User's Guide.

```

//ALLOCATE PROC,FORMAT=FB,REC=80,BLOCK=3200
//ALLOCATE EXEC PGM=IEFBR14
//DD1 DD DSN=CAMII.&SECTION,UNIT=SYSDA,DISP=(NEW,CATLG),
//      DCB=(RECFM=&FORMAT,LRECL=&REC,BLKSIZE=&BLOCK),
//      SPACE=(TRK,(&SPACE,,&DIR)),VOL=(PRIVATE,RETAIN,SER=&VOL)
//      PEND
//A EXEC ALLOCATE,SECTION=JCL,SPACE=5,DIR=2,VOL=CAMALL
//B EXEC ALLOCATE,SECTION=LEL,SPACE=15,DIR=5,VOL=CAMALL
//C EXEC ALLOCATE,SECTION=LOAD,SPACE=160,DIR=5,VOL=CAMALL
//      FORMAT=U,BLOCK=7294
//D EXEC ALLOCATE,SECTION=OBJECT,SPACE=100,DIR=10,VOL=CAMALL
//E EXEC ALLOCATE,SECTION=SAMPLE,SPACE=10,DIR=5,VOL=CAMALL
//F EXEC ALLOCATE,SECTION=SOURCE,SPACE=200,DIR=10,VOL=CAMALL
//G EXEC ALLOCATE,SECTION=WRITEUP,SPACE=60,DIR=10,VOL=CAMALL
//H EXEC PGM=IEFBR14
//DD1 DD DSN=COASTLINE,UNIT=SYSDA,DISP=(NEW,CATLG),
//      DCB=(RECFM=VSB,LRECL=22,BLKSIZE=3502),SPACE=(TRK,(205)),
//      VOL=(PRIVATE,RETAIN,SER=CAMALL)
//DD2 DD DSN=BOUNDARY,UNIT=SYSDA,DISP=(NEW,CATLG),
//      DCB=(RECFM=VSB,LRECL=22,BLKSIZE=3502),SPACE=(TRK,(100)),
//      VOL=(PRIVATE,RETAIN,SER=CAMALL)
//DD3 DD DSN=SBOUND,UNIT=SYSDA,DISP=(NEW,CATLG),
//      DCB=(RECFM=VSB,LRECL=22,BLKSIZE=3502),SPACE=(TRK,(5)),
//      VOL=(PRIVATE,RETAIN,SER=CAMALL)
//DD4 DD DSN=TOPODATA,UNIT=SYSDA,DISP=(NEW,CATLG),
//      DCB=(RECFM=FB,LRECL=80,BLKSIZE=3200),SPACE=(TRK,(70)),
//      VOL=(PRIVATE,RETAIN,SER=CAMALL)
//I EXEC PGM=IEHMOVE
//SYSPRINT DD SYSOUT=A
//SYSUT1 DD UNIT=SYSDA,DISP=OLD,VOL=SER=SCRVOL
//DISK DD VOL=SER=CAMALL,DISP=OLD,UNIT=SYSDA
//TAPE DD UNIT=TAPE9,DISP=OLD,LABEL=(,SL),VOL=SER=00710,
//      DCB=(DEN=3,RECFM=FB,LRECL=80,BLKSIZE=800)
//SYSIN DD *
COPY TO=2314=CAMALL,FROM=3400-3=(000710,1),FROMDD=TAPE,
      PDS=CAMII.JCL
COPY TO=2314=CAMALL,FROM=3400-3=(000710,2),FROMDD=TAPE,
      PDS=CAMII.LEL
COPY TO=2314=CAMALL,FROM=3400-3=(000710,3),FROMDD=TAPE,
      PDS=CAMII.LOAD
COPY TO=2314=CAMALL,FROM=3400-3=(000710,4),FROMDD=TAPE,
      PDS=CAMII.OBJECT
COPY TO=2314=CAMALL,FROM=3400-3=(000710,5),FROMDD=TAPE,
      PDS=CAMII.SAMPLE
COPY TO=2314=CAMALL,FROM=3400-3=(000710,6),FROMDD=TAPE,
      PDS=CAMII.SOURCE
COPY TO=2314=CAMALL,FROM=3400-3=(000710,8),FROMDD=TAPE,
      PDS=CAMII.WRITEUP
COPY TO=2314=CAMALL,FROM=3400-3=(000710,9),FROMDD=TAPE,
      DSNAME=COASTLINE
COPY TO=2314=CAMALL,FROM=3400-3=(000710,10),FROMDD=TAPE,
      DSNAME=BOUNDARY
COPY TO=2314=CAMALL,FROM=3400-3=(000710,11),FROMDD=TAPE,
      DSNAME=SBOUND
COPY TO=2314=CAMALL,FROM=3400-3=(000710,12),FROMDD=TAPE,
      DSNAME=TOPODATA

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/\*

```

//SZ30148 JOB (5620,3152,003U,1,4,,8),SYSTEM-CAN,CLASS=B
//EDIT EXEC PGM=EDITPGM.REGION=88K
//STEPLIB DD DSN=CAMII.LOAD,DISP=SHR,VOL=SER=CAMALL,UNIT=SYSDA
//SYSABEND DD SYSOUT=A
//WORK01 DD UNIT=SYSDA,SPACE=(TRK,(200,20)),
// DCB=(RECFM=FB,LRECL=132,BLKSIZE=3432)
//SYSPRINT DD SYSOUT=A
//CONTENTS DD SYSOUT=A,DCB=BLKSIZE=141
//PRINTER DD SYSOUT=A,DCB=BLKSIZE=141
//SYSIN DD DISP=SHR,VOL=SER=CAMALL,DSN=CAMII.WRITEUP(STANDARD),
// UNIT=SYSDA
// DD DISP=SHR,VOL=SER=CAMALL,DSN=CAMII.WRITEUP(ABSTRACT),
// UNIT=SYSDA
***
// DD DISP=SHR,VOL=SER=CAMALL,DSN=CAMII.WRITEUP(STANDARD),
// UNIT=SYSDA
// DD DISP=SHR,VOL=SER=CAMALL,DSN=CAMII.WRITEUP(USERGUID),
// UNIT=SYSDA
***
// DD DISP=SHR,VOL=SER=CAMALL,DSN=CAMII.WRITEUP(STANDARD),
// UNIT=SYSDA
// DD DISP=SHR,VOL=SER=CAMALL,DSN=CAMII.WRITEUP(DATAFORM),
// UNIT=SYSDA
***
// DD DISP=SHR,VOL=SER=CAMALL,DSN=CAMII.WRITEUP(STANDARD),
// UNIT=SYSDA
// DD DISP=SHR,VOL=SER=CAMALL,DSN=CAMII.WRITEUP(SYMBFORM),
// UNIT=SYSDA
***
// DD DISP=SHR,VOL=SER=CAMALL,DSN=CAMII.WRITEUP(STANDARD),
// UNIT=SYSDA
// DD DISP=SHR,VOL=SER=CAMALL,DSN=CAMII.WRITEUP(LCARDFRM),
// UNIT=SYSDA
***
// DD DISP=SHR,VOL=SER=CAMALL,DSN=CAMII.WRITEUP(STANDARD),
// UNIT=SYSDA
// DD DISP=SHR,VOL=SER=CAMALL,DSN=CAMII.WRITEUP(CLASSBNK),
// UNIT=SYSDA
***
// DD DISP=SHR,VOL=SER=CAMALL,DSN=CAMII.WRITEUP(STANDARD),
// UNIT=SYSDA
// DD DISP=SHR,VOL=SER=CAMALL,DSN=CAMII.WRITEUP(MAPPROJC),
// UNIT=SYSDA
//OPTION DD *
TITLE='CAMGUIDE',FLIP='YES';

```