

### VI.3.6A FLASH FLOOD GUIDANCE COMPUTATION SETUP (PROGRAM FFGUID)

This Section contains information for defining parameters using the Flash Flood Guidance System (FFGS) computation program (FFGUID).

Program FFGUID can define, change, delete and display the parameters.

An example of the Main menu is:

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      NATIONAL WEATHER SERVICE
    FLASH FLOOD GUIDANCE SYSTEM
    PROGRAM FFGUID (VERSION: 5.2.1r21 - 03/18/02)
      ofs_level=ofstest    ffg_level=ofstest
directory for user info    = /fs/awips/rfc/nwsrfs/ffg/files/ofstest/user
directory for areas       = /fs/awips/rfc/nwsrfs/ffg/files/ofstest/affg
directory for carryovers  = /fs/awips/rfc/nwsrfs/ffg/files/ofstest/cary
directory for gridded ffg = /fs/awips/rfc/nwsrfs/ffg/files/ofstest/grff
directory for gridded runoff = /fs/awips/rfc/nwsrfs/ffg/files/ofstest/grro
directory for headwaters  = /fs/awips/rfc/nwsrfs/ffg/files/ofstest/hffg
directory for runoff adj parm = /fs/awips/rfc/nwsrfs/ffg/files/ofstest/gdpm
directory for groups of prod = /fs/awips/rfc/nwsrfs/ffg/files/ofstest/grpp
directory for output      = /fs/awips/rfc/nwsrfs/ffg/output
directory for products    = /fs/awips/rfc/nwsrfs/ffg/files/ofstest/prod
directory for texts       = /fs/awips/rfc/nwsrfs/ffg/files/ofstest/text
directory for water supply = /fs/awips/rfc/nwsrfs/ffg/files/ofstest/wsup

directory for system files: /fs/awips/rfc/nwsrfs/sys_files/
directory for oper files:   /fs/awips/rfc/nwsrfs/ofs/files/ofstest/fs5files/
directory for reorder files: /fs/awips/rfc/nwsrfs/ofs/files/scv_new/fs5files/
directory for mod files:    /fs/awips/rfc/nwsrfs/ofs/files/ofstest/mods/
directory for grid files:   /fs/awips/rfc/nwsrfs/ofs/files/ofstest/griddb/

      RUN DATE=03/19/2002 - 07:27:27

ERROR ON

      COMPUTATIONS MENU

      C - Compute All

      or separately
      G - Gridded FFG
      A - Area FFG
      H - Headwater FFG
      V - Carryover Transfer
      W - Water Supply Guidance

      S - Setup Menu

Select (<return>-exit):
```

The Setup Menu provides management functions to define, change and display the parametric information needed to compute gridded, area and headwater Flash Flood Guidance. Parameters can be entered from the terminal (Section VI.3.6A-SETUP) or from ASCII files (Section VI.3.6C-INFILFILE).

#### Setup and Definition

This following is a summary of the setup steps to be followed when using program FFGUID to initialize the FFGS. It also contains an explanation of some of the material needed, items to consider for the steps, explanation of what the programs do with the information and references to other parts of this manual that contain additional information.

The setup steps are:

1. Determine the number of flash flood areas (generally one for each basin).
2. Determine the number of zones/counties in the RFC service area. Boundaries for these zones/counties are used to locate all the bins in the zones/counties for which gridded guidance will be computed.
3. Size the preprocessor parametric database for data type codes FFG and BASN to include the numbers from steps 1 and 2, respectively (Chapter I.5-FILESIZE-PPP).
4. Add FFG Operation to Segment definitions (Section VI.3.4B-SEGDEF).
5. Complete the USER CONTROLS AND OPTIONS MENU, a sub-menu selected from the FFG Computations Setup Menu. The southwest HRAP corner must be completed before any gridded threshold runoffs are defined (Section VI.3.6A-SETUP-USER).

For Zone/county Flash Flood Guidance:

6. Define boundaries for desired areas (counties, zones, etc.) where Flash Flood Guidance (based on gridded guidance) is desired (Section VI.3.3B-DEFINE-BASIN).
7. Define areas (counties, zones, urban) AFFG parameters (Sections VI.3.6A-SETUP-AREA and VI.3.6C-INFILE-AREA).

For Gridded Flash Flood Guidance:

8. (Optional) - Define high flow adjust, intensity and overbank factors by MAP basin boundaries to adjust gridded threshold runoff values (Sections VI.3.6A-SETUP-INTEN and VI.3.6C-INFILE-INTEN).
9. (Initial gridded implementation) - Assign zone/county threshold runoff values to grids within the zone/county (Section VI.3.6E-ZGRID).
10. Define gridded threshold runoff values using output files from Threshold Runoff program or initially step 9 (Section VI.3.6A-SETUP-GRID and VI.3.6C-INFILE-GRID).

For Headwaters:

11. (Optional) - Define Rating Curves as desired for flow at flood stage for use by headwaters (Section VI.3.4B-DEF-RC).
12. (Optional) - Define forecast flow time series as external for adjustment of headwater guidance (Section VI.3.4B-SEGDEF).
13. Define headwater HFFG parameters (Sections VI.3.6A-SETUP-HEAD and VI.3.6C-INFILE-HEAD).

See Section VI.3.6B to setup Flash Flood Guidance Products.