

VI.5.5-FFG-ZGRID CONVERT FFG AREAL ZONE RUNOFF TO HRAP GRID RUNOFF
USING PROGRAM ZGRID

Purpose

Program ZGRID converts zone/county threshold runoff to HRAP grid runoff.

Application Guidelines

Areal runoffs for zones and counties are maintained on the area (AFFG) records. Initially, areal runoffs resided on parametric files from previous RFC FFG software which is no longer used. Program zgrid can be used to add the runoffs to the AFFG records.

Procedure 1 copies runoffs from the gridded runoff files to the area definition file for later use in Procedure 2. This is a one time conversion.

Procedure 2 distributes areal runoffs to grids. This step is executed when area boundaries are changed or when areal runoffs are changed.

Procedure 1 - add runoffs to area definition records:

- 1.1 Go to the directory ../ffg/files/oper/define.
- 1.2 Dump area parameters if defarea file is not current or does not exist.
- 1.3 For MBRFC and OHRFC add command 'rofb' as first record in file defarea.

For ABRFC, LMRFC, NCRFC, SERFC, SJU and WGRFC add command 'rozb' as first record in file defarea.

For MARFC and NERFC add command 'rohd' as first record in file defarea.

- 1.4 If files gridro01, gridro03 and gridro06 are not present then run the following UNIX commands:

```
cp defgro01 gridro01
cp defgro03 gridro03
cp defgro06 gridro06
cp defgro12 gridro12 (if used)
cp defgro24 gridro24 (if used)
```

- 1.5 Run ZGRID using 'defarea' as the input file name and 'defarea_new' as the output file name.

File defarea_new should be identical to file defarea but has runoffs on each record.

1.6 Run the following UNIX commands:

```
mv defarea defarea.old
mv defarea_new defarea
```

Procedure 2 - runoffs exist on area definition records:

Redistribute runoff to grids and/or recompute gridded runoffs when area boundaries or zone/counties are added, deleted or changed.

2.1 Go to directory ../ffg/files/oper/define.

2.2 Run ZGRID using defarea as the input file name and defarea_test as the output file name. Files defarea and defarea_test should be identical. File defarea_test can be deleted. Files gridro01, gridro03, gridro06, etc. are new. The new ../ffg/files/oper/grro/xhr* files can be created using the program FFGUID Setup menu and specifying one of the gridro files as the input file.

Execution Menu

The execution menu prompts the user for an input and output file name.

An example is:

```

      N A T I O N A L   W E A T H E R   S E R V I C E
    F L A S H   F L O O D   G U I D A N C E   S Y S T E M
      P R O G R A M   Z G R I D   ( V E R S I O N   5 . 2 . 1 r 2 0   -   0 3 / 2 6 / 0 2 )
          C O N V E R T   Z O N E / C O U N T Y   R U N O F F S
                T O
          G R I D D E D   R U N O F F S
          f f g _ l e v e l = o f s t e s t           o f s _ l e v e l = o f s t e s t
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/ofstest_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/
Enter d-debug, l-logfile, q-quit or <return>-continue:
```

Two options are available:

- enter 'd' and <return> to turn on debug
- enter 'l' and <return> to write to a log file

To continue enter <return> and the following prompts appears:

Enter pathname of old zone/county (area) runoff define file:

Enter pathname of new zone/county (area) runoff define file:

The following summary is printed at program completion:

Converted nnn area runoffs to HRAP grid and AFG parameters.
Old area define file: pathname_old
NEW area define file: pathname_new

ERRORS= nerr WARNINGS= nwarn