VI.5.3C-FMAP   PROGRAM FCST FUTURE MEAN AREAL PRECIPITATION FUNCTION
                (FMAP)

Purpose

Function FMAP is a preprocessor Function that creates 6 hour Future
Mean Areal Precipitation time series.

FMAP time series are used by the Forecast Function (FCEXEC) for QPF
and contingency forecasts.

Future areal precipitation estimates are manually input using Future
MAP area identifiers or computational order numbers. The
computational order list is generated by the ORDER command of the
Preprocessor Initialization Program (PPINIT - see Section VI.3.3
[Hyperlink]).

Time distribution of daily Future MAP estimates may be specified for
each area or a combination of areas or the default of evenly dividing
the precipitation among the four 6 hour periods may be used. Future
MAP values must be dated.

A technical description of Function FMAP is in Chapter II.6-OFS-FMAP
[Hyperlink].

HCL Input

Input to Function FMAP is through the Hydrologic Command Language
(HCL).

The input consists of Techniques and their Arguments (see Section
VI.5.3C-FMAP-TECH [Hyperlink]) and run time modifications (see Section
VI.5.3C-FMAP-MOD [Hyperlink]).

Sample HCL Input

The following examples are shown assuming that no local defaults have
been set so that only the global defaults are in effect.

Example 1. 6 hour future precipitation

The following example enters 6 hour precipitation estimates for all
Future MAP areas between the range ARKAN1-RED1 in the computational
order list. The first value corresponds to the 6 hour period ending
at 00Z on June 10. A future MAP value of zero would be inserted for
the 18Z period on June 9. The results will not be printed since the
global default for the PRNTFMAP Technique is off. Note that data for
more than one day has been entered.

```
   @SETOPTIONS
    LSTCMPDY 0609
    MOD
```

```
   .FMAP6 061000Z
    ARKAN1-RED1 .50 .50 .75 1.0 .75 .50
    ENDMOD
  @COMPUTE FMAP
  @STOP
```

Example 2. 6 hour and 24 hour precipitation

The following example enters a daily precipitation value and a time
distribution for a range of Future MAP areas corresponding to
identifiers 10 through 15 in the computational order list. The area
corresponding to computational order number 12 will be overridden with
the input of 6 hourly precipitation values because 6 hour data will
always override 24 hour data. The default value of today at 12Z will
be used for the last observed data date and the resulting Future MAP
values will be printed.

```
  @SETOPTIONS
   PRNTFMAP(1)
   MOD
    .FMAP24 0611 N / .15 .20 .25.40
    10-15 2.5
    .FMAP6 061018Z N
    12 .45 .60 .75 1.2
    ENDMOD
  @COMPUTE FMAP
  @STOP
```

Example 3. 1 day of 24 hour future precipitation

The following example enters a 24 hour precipitation value of 2 inches
for Future MAP area ARKAN1. The precipitation will be time
distributed as shown on the .FMAP24 card. A value of 1.5 inches is
entered for all areas in the range of JRLK1-COMO2 in the computational
order list. The time distribution specified on the identifier card is
used for these areas. The results will be printed since the PRNTFMAP
Technique has been specified.

```
  @SETOPTIONS
   PRNTFMAP
   MOD
    .FMAP 24 0111 / .00 .25 .50 .25
    ARKAN1 2.0
    JRLK1-COMO2 1.5 / .25 .5 .25
    ENDMOD
  @COMPUTE FMAP
  @STOP
```

Output

There are two types of output from Function FMAP. The first is the
printed output. The second is time series data written to the
Processed Data Base.

<u>Error Messages</u>

Error messages printed by Function FMAP are described in Section
VI.5.3C-FMAP-ERROR [<u>Hyperlink</u>].