Purpose

Run-time modifications (MODs) are used by Function MARO to enter 24
hour grid point precipitation data values (observed or forecast,
depending upon the value of Technique FTWQPF).

These grid point values will replace any amount currently occupying
the same grid point address. This is the only runtime modification
currently available with the MARO Function.

Syntax

The runtime MOD uses free format card image form for input. The MOD
begins with the MOD name of .GRIDPX. Each new grid address must begin
on a new card image. Continuation of the data for a single grid point
onto another card image is prohibited.

See Section VI.5.2C [Hyperlink] for a description of the command
format symbols.

Form of Input

    .GRIDPX date
    grid-address 24_hour_precip [6_hour_precip]

Parameter Description

Parameter	Required/ Optional	Maximum Characters	Description
date	R	12	Hydrologic date of the input data 1/
grid-address	R	4	Grid point address of the precipitation 2/
24_hour_precip	R	N/A	24 hour precipitation value 3/
6_hour_precip	O	N/A	6 hour precipitation value 3/ 4/

Notes:

1/ The date that appears here is the end of the hydrologic day for
    which the following runtime MOD data applies. The asterisk (*)
    date form indicating TODAY cannot be used.

2/ The grid point address field must specify grid boxes between 1 and
   99 inclusive or the entire report will be discarded. The MOD will
   accept a real number in this field, but it will be truncated to an
   integer and given a validity check.

3/ The .GRIDPX MOD can accept either real or integer values in the
   precipitation fields. If the field is integer, then the input is
   assumed to be to the nearest 0.01 inch. If any precipitation
   amount exceeds the maximum precipitation amount given in Technique
   PP24MAX, a warning message is issued. If any precipitation amount
   is entered as a negative number, the entire report is discarded.

4/ The 6 hour precipitation field may contain up to 4 separate entries
   separated by spaces or commas. The use of the repeat factor (See
   VI.3.3B for an example) is permitted provided that the repeat
   factor is between 1 and 4 inclusive. Any repeat factor out of the
   permissible range will be changed to correspond to the number of 6
   hour fields that remain to be processed and the precipitation
   amount following the repeat factor will be inserted in the
   remaining 6 hour fields. Any missing fields will be interpreted as
   zero amounts in the last missing periods.

<u>Example</u>

```
.GRIDPX  072788
1105  1.50  1.20, 2*0, .30
1260  75  20 50 5
1325  52
0330  40  40
0105  45,0,10,25,10
1299  54  6*9
3284  62 3*0 62
ENDMOD
```

Seven grid point precipitation values were input with the .GRIDPX MOD
for the hydrologic date ending at 12Z on July 27, 1988. The data
input was:

1. Grid point 1105, 24 hour precipitation 1.50 inches, with 1.20
   inches in the first period (12Z-18Z), zero in the second period
   (18Z-00Z), zero in the third period (00Z-06Z) and 0.30 inches in
   the fourth period (06Z-12Z).

2. Grid point 1260, 24 hour precipitation 0.75 inches, with 0.20
   inches in the first period, 0.50 inches in the second period,
   0.05 inches in the third period and zero (assumed) in the fourth
   period.

3. Grid point 1325, 24 hour precipitation 0.52 inches, with no 6
   hour distributions specified.

4. Grid point 330, 24 hour precipitation 0.40 inches, with all of
   it occurring in the first period (the precipitation for the
   second, third and fourth periods is assumed to be zero).

5. Grid point 105, 24 hour precipitation 0.45 inches, with zero in
    the first period, 0.10 inches in the second period, 0.25 inches
    in the third period and 0.10 inches in the fourth period.

6. Grid point 1299, 24 hour precipitation 0.54 inches. Since the
    repeat factor is out of the permissible range and there are four
    6 hour fields left to process, the repeat factor will be changed
    to four. The distribution will then indicate 0.09 inches in the
    first, second, third and fourth, periods. NOTE: MARO does not
    store 6 hour precipitation explicitly. It stores 6 hour time
    distribution percentages, where each 6 hour distribution is
    expressed as a ratio of the 6 hour amount to the sum of the 6
    hour amounts. Therefore, an even distribution would be shown.

7. Grid point 3284, 24 hour precipitation 0.62 inches, with zero in
    the first, second and third periods and 0.62 inches in the
    fourth period.