Description of VERA file format

VERA Data are saved in ASCII format on a Cartesian grid. The first 46 lines are the header and contain some necessary information for users (the important lines are painted yellow). Following the header the analysed field starts organized in 19 columns starting at the SW corner increasing to the north. The domain is 1664 km in W-E direction and 1536 km in S-N direction (209 x 193 = 40337 GP for a resolution of 8 km).

File name

`VERA_8km_2007070300_03_bog.dat`

gives information on:
resolution (`8km`)
analysis time (`YYYYMMDDHH`)
precipitation accumulation period in hours (here: `03`), analysis time gives the end of the accu. period
use of bogus stations over the Mediterranean to keep the analysis stable (`bog`)

NOTE: file names which only differ in the accumulation period, e.g.:
`VERA_8km_2007070300_01_bog.dat`
`VERA_8km_2007070300_03_bog.dat`
contain the same values for all parameters except for precipitation

Header information

```
/home/srvx11/raid11/user/gorgas/VERITA_A
/home/srvx11/raid11/user/gorgas/VERITA_A
/home/srvx11/raid11/user/gorgas/VERITA_A
           1
   48.80000                                  latitude of origin
   7.000000                                  longitude of origin
 2007070305                                  date of analysis (YYYYMMDDHH)
           0
           1
           1
           0
           0
           3
@
  1.000000
          50
          50
          50
           1
           9
           3                                 field resolution (2^x km, here: 2^3=8 km)
           3
         832                                 max. distance to origin in E-direction
         832                                 max. distance to origin in W-direction
         768                                 max. distance to origin in N-direction
         768                                 max. distance to origin in S-direction
         500
         200
          10
```

```
           5
           2
           0
 1 1 1 1 1 0 0 1 0 0 0 0 1 0 0
@
@
@
 veraxx3.0_alpha-fg
dyn.sn.FP_xy_W45.N17.0.0_6721.3601.1.1_1
dyn.wo.FP_xy_W45.N17.0.0_6721.3601.1.1_1
thermfp2k2mi.3000.2000.1.1.bin
@
@
@
@
@
01                                                    precipitation accumulation period (x hours)
```

Field of analysis values:

19 columns:

```
-832.0000  -768.0000     0.0000     0.0000      -0.07      1.16      0.36     21.87     39.48
9999.00   9999.00   1016.19   9999.00   9999.00   9999.00   9999.00     -0.05   9999.00      7.08
```

1. x – coordinate (km, distance from origin)
2. y – coordinate (km, distance from origin)
3. z – coordinate (not used)
4. t – coordinate (not used)
5. precipitation (mm/ x hours, x hours are defined in the last line of the header and in the file name – some values may be below zero because of spline curvatures – ignore them)
6. 10m wind u - component (m/s)
7. 10m wind v - component (m/s)
8. 2m potential temperature (°C)
9. 2m equivalent potential temperature (°C)
10. not used
11. not used
12. msl – pressure (hPa)
13. not used
14. not used
15. not used
16. not used
17. precipitation (mm - analysis of uncorrected precipitation values, do not use this one, take value in column 5)
18. moisture flux divergence (kg/kg*s^-1*10^-4, post processing)
19. mixing ratio (kg/kg*10^-3, post processing)

Latitude and longitude values of Cartesian grid points are given in the file: VERA_8km_ coordinates_lam_phi.txt. Values are organised in the same way as for the analysis data.