NetCDF format for MWR data V2.1b

Each delivered file is covering one cycle and is delivered in Netcdf format. The ncdump utility gives the following result:

```
netcdf RA2-MWR_L2_v 2.1b_20081207_0 00000 _2008 1207_2 35959 _2152 5 {
dimensions:
        time = 50594 ;
variables:
        double time(time) ;
                time:_FillValue = 9.969209968 38687 e+36 ;
                time:units = "day s since 1950-01-01
                00:00:00.0" ; time:long_name = "day s since
                1950-01-01 00:00:00.0" ; time:standard_name
                = "time" ;
                time:calendar = "gregorian " ;
        double latitude(time) ;
                latitude:_FillValue = 9.9692099 68386
                87e+ 36 ; latitude:units =
                "degrees_north" ; latitude:long_name
                = "latitude" ; latitude:standard_name =
                "latitude" ; latitude:quality _f lag =
                "orb_state_f lag" ;
                latitude:comment = "Positiv e lat itude is North latitude, negativ e latitude is South latitude." ;
        double longitud e(time) ;
                longitude:_FillValu e = 9.96920996
                83868 7e+3 6 ; longitude:units =
                "degrees_e ast" ; longitude:long_ name
                = "longitud e" ; longitude:standard_name
                = "longitude " ; longitude:quality _f lag =
                "orb_state_f lag" ;
                longitude:comment = "East longitude relativ e to Greenwich meridian" ;
        int bathymetry (time) ;
                bathy metry :_FillValue = -2147483647 ;
                bathy metry :source = "ETOPO 1" ;
                bathy metry :valid_min = -10000 ;
                bathy metry :long_name = "ocean depth/land elev ation" ;
                bathy metry :units = "m" ;
                bathy metry :valid_max = 10000 ;
                bathy metry :institution = "GSFC" ;
                bathy metry :coordinates = "longitude latitude" ;
        byte ice_f lag(time) ;
                ice_f lag:_FillValue = -127b ;
                ice_f lag:flag_meanings = "no_ice ice" ;
                ice_f lag:long_name = "ice f lag" ;
                ice_f lag:flag_v alues = 0, 1 ;
                ice_f lag:coordinates = "longitude latitude" ;
        byte rad_surf _ty pe(time) ;
                rad_surf _type:_FillValue = -127b ;
                rad_surf _type:flag_meanings = "oc ean land" ;
                rad_surf _type:long_name = "radiometer surf ace ty pe" ;
                rad_surf _type:flag_v alues = 0, 1 ;
                rad_surf _type:coordinates = "longitude latitude" ;
        byte surf ace_type(time) ;
                surf ace_type:_FillValue = -127b ;
                surf ace_type:f lag_meanings =
                "ocean land" ; surf ace_ty
                pe:long_name = "surf ace ty pe" ; surf
                ace_type:f lag_v alues = 0, 1 ;
                surf ace_type:coordinates = "longitude latitude" ;
        short sig0_ku(time) ;
                sig0_ku:_FillValue = -3276 7s ;
                sig0_ku:comment = "All instrumental corrections included, excepted the system bias, i.e. AGC
                instrumental errors
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correction, internal calibration correction (internal_corr_sig0_ku), modeled instrumental errors correction (modeled_instr_ corr_sig0_ku) and atmospheric attenuation (atmos_sig0_corr_ku)." ;
sig0_ku:scale_f actor = 0.01 ;
sig0_ku:standard_name = "surf ace_backwards_scattering_coefficient_of _radar_wav e" ;
sig0_ku:coordinates = "longitude latitude" ;
sig0_ku:long_name = "Ku ba nd corrected backscatter coeff icient" ;
sig0_ku:v alid_min = 0 ;
sig0_ku:units = "dB" ;
sig0_ku:v alid_max = 3000;
short sig0_c(time) ;
sig0_c:_FillValue = -32767s ;
sig0_c:comment = "All instrumental corrections included, excepted the system bias, i.e. AGC instrumental errors correction, internal calibration correction (internal_corr_sig0_c), modeled instrumental errors correction (modeled_instr_corr_sig0_c) and atmospheric attenuation (atmos_sig0_corr_c)" ;
sig0_c:scale_f actor = 0.01 ;
sig0_c:standard_name = "surf ace_backwards_scattering_coeff icient_of _radar_wav e" ;
sig0_c:coordinates = "longitude latitude" ;
sig0_c:long_name = "C band corrected backscatter coeff icient" ;
sig0_c:v alid_min = 0 ;
sig0_c:units = "dB" ;
sig0_c:v alid_max = 3000 ;
short tb_k(time) ;
tb_k:_FillValue = -32767s ;tb_k:comment = "v 2.1b reprocessed brightness temperatures" ;
tb_k:long_name = "$tbc2 GHz main beam brightness temperature" ; tb_k:standard_name = "brightness_temperature" ;
tb_k:scale_f actor = 0.01 ;
tb_k:units = "K" ;
tb_k:coordinates = "longitude latitude" ;
short tb_ka(time) ;
tb_ka:_FillValue = -32767s ;
tb_ka:comment = "v 2.1b reprocessed brightness
temperatures" ; tb_ka:long_name = "$tbc3 GHz main
beam brightness temperature" ; tb_ka:standard_name =
"brightness_temperature" ;
tb_ka:scale_f actor = 0.01 ;
tb_ka:units = "K" ;
tb_ka:coordinates = "longitude latitude" ;
short rad_water_v apor(time) ;
rad_water_v apor:_FillValue = -32767s ;
rad_water_v apor:quality _f lag =
"tb_interp_f lag" ; rad_water_v
apor:comment = "v 2.1b reproces sed" ;
rad_water_v apor:scale_f actor = 0.01 ;
rad_water_v apor:standard_name = "atmosphere_ water_v apor_content" ;
rad_water_v apor:coordinates = "longitude latitude" ;
rad_water_v apor:long_name = "radi ometer water v apor content" ;
rad_water_v apor:v alid_min =
0 ; rad_water_v apor:units =
"g/cm^2" ; rad_water_v apor:v
alid_max = 700 ;
byte atmos_sig0_corr_ku(time) ;
atmos_sig0_corr_ku:_FillValue = -127b ;
atmos_sig0_corr_ku:comment = "v 2.1b
reprocessed" ;
atmos_sig0_corr_ku:long_name = "atmospheric attenuation correction on Ku band backscatter coeff
icient" ;
atmos_sig0_corr_ku:v alid_min = 0 ;
atmos_sig0_corr_ku:scale_f actor = 0.01 ;
atmos_sig0_corr_ku:units = "dB" ;
atmos_sig0_corr_ku:v alid_max = 50 ;
atmos_sig0_corr_ku:coordinates = "longitude
latitude" ;
byte atmos_sig0_corr_c(time) ;
atmos_sig0_corr_c:_FillValue = -127b ;
atmos_sig0_corr_c:comment = "WARNING : original product. Not consistent with reprocessed
brightness temperatures" ; atmos_sig0_corr_c:long_name = "atmospheric attenuation correction on
C band backscatter coeff icient" ; atmos_sig0_corr_c:v alid_min = 0 ;
atmos_sig0_corr_c:scale_f actor
= 0.01 ; atmos_sig0_corr_c:units
= "dB" ; atmos_sig0_corr_c:v
alid_max = 50 ;
atmos_sig0_corr_c:coordinates = "longitude latitude" ;
short model_wet_tropo_corr(time) ;
model_wet_tropo_corr:_FillValu e = -32767s ;
model_wet_tropo_corr:comment = "Computed at the altimeter time-tag f rom the interpolation of 2 meteorological f ields that surround the altimeter time-tag. A wet troposphe
ric correction must be added (negativ e v alue) to the instrument range to correct this range measurement f or wet tropospheric range delay s of the radar pulse." ;

model_wet_tropo_corr:scale_f actor = 0.0001 ;
model_wet_tropo_corr:standard_name = " altimeter_range_cor rection_due_to_ wet_troposph ere" ;
model_wet_tropo_corr:coordinates = "longitud e latitude" ;
model_wet_tropo_corr:long_ name = "model wet tropospheric
correction" ; model_wet_tropo_corr:v alid_min = -5000 ;
model_wet_tropo_corr:units = "m" ;
model_wet_tropo_corr:v alid_max = 0 ;
short rad_wet_tropo_corr(time) ;
rad_wet_tropo_corr:_FillValu e = -32767s ;
rad_wet_tropo_corr:comment = "A wet tropospheric correction must be added (negativ e v alue) to the instrument range to correct this range measurement f or wet tropospheric range delays of the radar pulse v 2.1b reprocessed" ;
rad_wet_tropo_corr:scale_f actor = 0.0001 ;
rad_wet_tropo_corr:standard_name = "altimeter_range_cor rection_due_to_ wet_t roposp here" ;
rad_wet_tropo_corr:coordinates = "long itude latitude" ;
rad_wet_tropo_corr:long_ name = "radiometer wet tropospheric
correction" ; rad_wet_tropo_corr:v alid_min = -5000 ;
rad_wet_tropo_corr:units = "m" ;
rad_wet_tropo_corr:v alid_max = 0 ;
short rad_liquid_ water(time) ;
rad_liquid _water:_FillValue = -327 67s ;
rad_liquid _water:comment = "Should not be used ov er land v 2.1b reprocessed" ;
rad_liquid _water:scale_f actor = 0.01 ;
rad_liquid _water:standard_name = "atmosphere_clo ud_liq uid_ water_content" ;
rad_liquid _water:coordinates = "longitude latitude" ;
rad_liquid _water:long_name = "r adiometer liquid water content" ;
rad_liquid _water:v alid_min =
0 ; rad_liquid _water:units =
"kg/m^2" ; rad_liquid _water:v
alid_max = 200 ;

// global
attributes: :Conv entions = "CF-1.6" ;
:f irst_meas_time = "2008-12-07 00:00:00.103 879" ;
:last_meas_time = "2008-12-07 23:59:59.306904 " ;
:source = "CLS L1B/L2 radiometer reprocessing" ;
:institution = "CLS f or ESA" ;
:title = "RA2-MWR reprocessing v 2.1b f ollowing calibration issues in 2.1 reprocessing (see Env isat RA2/MWR y early report
2013 on av iso web site)" ;}