

ARPEGE MEMORANDUM

From: GCO Date: May 07, 2008
To: GMAP, COMPAS, GMGEC, GMME,
DIR/RE/CRC, Mats Hamrud
Subject: New cycle CY33T1

A new cycle CY33T1 has been created. This is not a common cycle with the ECMWF. The different contributions for this cycle are described in the following pages.

ClearCase
label: CY33T1

Modified
libraries: arpege, aladin, bl, odb, satrad, trans,
trans_ald, ifsaux, obstat, utilities, mpa,
mse

Contributors:

AUGER Ludovic	Project:arpege	CCase branch:mrpa645_CY33T0_aladbl
BOLONI Gergely	Project:arpege	CCase branch:mrpe703_CY33T0_obshms
BOUTELOUP Yves	Project:arpege	CCase branch:mrpa648_CY33T0_b294
	Project:arpege	CCase branch:mrpa648_CY33T0_b296
	Project:arpege	CCase branch:mrpa648_CY33T0_b297
	Project:arpege	CCase branch:mrpa648_CY33T0_b298
BOUYSSSEL Francois	Project:arpege	CCase branch:mrpa649_CY33T0_acdifv
	Project:arpege	CCase branch:mrpa649_CY33T0_aplpar
	Project:arpege	CCase branch:mrpa649_CY33T0_bugcorsfx
BROZKOVA Radmila	Project:arpege	CCase branch:mrpe684_CY33T0_alr02
	Project:arpege	CCase branch:mrpe684_CY33T0_alr02f
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DESROZIERS Gerald	Project:arpege	CCase branch:mrpm611_CY33T0_siglab_ensemble_op1
EL-KHATIB Ryad	Project:arpege	CCase branch:mrpm602_CY33T0_4emu
	Project:arpege	CCase branch:mrpm602_CY33T0_gnu
	Project:arpege	CCase branch:mrpm602_CY33T0_jdg
	Project:arpege	CCase branch:mrpm602_CY33T0_port
GCO	Project:arpege	CCase branch:marp001_CY33T0_mergeVarbc
	Project:arpege	CCase branch:marp001_CY33T0_op1
	Project:arpege	CCase branch:marp001_CY33T0_rename_aro
	Project:arpege	CCase branch:marp001_CY33T0_t1bf
	Project:arpege	CCase branch:marp003_CY33T0_T1op1

GUIDARD Vincent Project:arpege CCase branch:mrpe710_CY33T0_Berre_latlon
Project:arpege CCase branch:mrpe710_CY33T0_mergeVarbc
MONTMERLE Thibaut Project:arpege CCase branch:mrpa666_CY33T0_radar_tm
Project:arpege CCase branch:mrpa666_CY33T0_t1_radar_bugfix_tm
PAYAN Christophe Project:arpege CCase branch:mrpa642_CY33T0_T1_cleanquik
SAEZ Patrick Project:arpege CCase branch:mrpm608_CY32T0_c901
SEITY Yann Project:arpege CCase branch:mrpm637_CY33T0_MTS
Project:arpege CCase branch:mrpm637_CY33T0_arome_bf2
Project:arpege CCase branch:mrpm637_CY33T0_aromebfs
Project:arpege CCase branch:mrpm637_CY33T0_bfsAROME
Project:arpege CCase
branch:mrpm637_CY33T0_mrpm637_CY33T0_surfex3_bf3
Project:arpege CCase branch:mrpm637_CY33T0_normviol
Project:arpege CCase branch:mrpm637_CY33_hail
Sylvie Malardel Project:arpege CCase branch:marp001_CY33T0_arome_sylvie
WATTRELOT Eric Project:arpege CCase branch:mrpa652_CY33T0_33t0_T1_v01_radar_ew

AUGER Ludovic

Doc:

arp/module/yomvarbc.F90
arp/namelist/namvarbc.h
arp/var/suvarbc.F90:
Modification for VARBC activation for SEVIRI .

arp/obs_preproc/defrun.F90:
Fix a bug about observations assimilation in boundary layer during the night.

arp/pp_obs/fpcica.F90:
Fix a bug for CAPE fullpos computation.

bla/mf_blacklist.b:
Blacklisting for VARBC activation for SEVIRI .

arp/pp_obs/biaspred.F90 :
Bugfix .

Project: arpege,black_list
ClearCase branch: mrpa645_CY33T0_aladbl

Modified:

arp/module yomvarbc.F90
arp/namelist namvarbc.h
arp/obs_preproc defrun.F90
arp/pp_obs biaspred.F90 fpcica.F90 fpcincape.F90

arp/var suvarbc.F90
bla mf_blacklist.b

BOLONI Gergely

Doc:

The routines below contain modifications aiming to:

- enable to use small thinning boxes for aircraft data;*
- use ATOVS/AMSU-B data in full resolution (all the 90 scan positions);*
- compute bias correction file that contains information for all the 90 scan positions.*

arp/obs_preproc/thiair.F90:

Increase the ISCALE parameter if LELAM.

arp/module/yomobs.F90:

Declare new logical variable LAMSUB_FULL.

arp/obs_preproc/defrun.F90:

Initialize new logical variable LAMSUB_FULL.

arp/pp_obs/rad1cobe.F90:

Keep all 90 scan positions under LAMSUB_FULL key.

sat/bias/suadvar.F90:

*Different reading format is introduced for reading a bias correction file with 90 scan positions.
Done under LAMSUB_FULL key.*

sat/module/param_1dvar.F90:

Increase maximum number of scan positions (JPSCAN) to 90.

uti/extrtovs/add_scan_1c.F90:

Modification related to the computation of the bias correction file only! Increase maximum number of scan positions (JPSCAN) to 90.

uti/extrtovs/calc_scan_1c.F90:

Modification related to the computation of the bias correction file only! Increase maximum number of scan positions (JPSCAN) to 90 and introduce new namelist variable LAMSUB_FULL.

uti/extrtovs/cycle_scan_1c.F90:

Modification related to the computation of the bias correction file only! Increase maximum number of scan positions (JPSCAN) to 90 and introduce new namelist variable LAMSUB_FULL.

uti/extrtovs/calc_bias_1c.F90:

Modification related to the computation of the bias correction file only! Increase maximum number of scan positions (JPSCAN) to 90 and introduce new namelist variable LAMSUB_FULL.

uti/extrtovs/cycle_bias_1c.F90:

Modification related to the computation of the bias correction file only! Increase maximum number of scan positions (JPSCAN) to 90 and introduce new namelist variable LAMSUB_FULL.

uti/extrtovs/biasconv_1c.F90:

Modification related to the computation of the bias correction file only! Increase maximum number of scan positions (JPSCAN) to 90 and introduce new namelist variable AMSUB_FULL. New print out introduced for bias correction file with 90 scan positions (under LAMSUB_FULL key).

uti/module/mod_rad_bias_1c_uti.F90:

Declaration for new variable LAMSUB_FULL. Modify function GET_SCAN_RTOVS under LAMSUB_FULL key.

Project: arpege,satrad,utilitaires
ClearCase branch: mrpe703_CY33T0_obsrms

Modified:

arp/module	yomobs.F90		
arp/namelist	namobs.h		
arp/obs_preproc	defrun.F90	thiair.F90	
arp/pp_obs	rad1cobe.F90		
sat/bias	suadvar.F90		
sat/module	param_1dvar.F90		
uti/extrtovs	add_scan_1c.F90	biasconv_1c.F90	calc_bias_1c.F90
	calc_scan_1c.F90	cycle_bias_1c.F90	cycle_scan_1c.F90
uti/module	mod_rad_bias_1c_uti.F90		

BOUTELOUP Yves

Doc:

1) Bug correction in acbl89.F90

2) Introduction of new keys :

a : LECTREP : (default FALSE) If TRUE reproductability of the scheme when NPROMA is modified

b : LECTQ1 : (default TRUE) If TRUE limitation of Q1 in acturb

c : LECTBR : (default FALSE) If TRUE use of Brinkop and Roekner algorithm (corresponding routine is not in the modset)

d : NLEND : (default 0) Use of Lenderink's mixing length (0 : BL89, 1 : Lenderink, 2 : Lenderink with cloud calculus) (corresponding routine is not in the modset)

e : LECTLIM : (default FALSE) In case of the use of Lendering's mixing length, limitation of the length by the altitude (like bl89)

3) Correction of the calculus of the "AGRE2" term in the parametrisation of the top PBL entrainment in acturb

Project: arpege,Meso-NH physique altitude
ClearCase branch: mrpa648_CY33T0_b294

Modified:

arp/module	yomphy.F90
arp/namelist	namphy.h

arp/phys_dmn acbl89.F90 acturb.F90 acvppkf.F90
 aplpar.F90 sucvmnh.F90
arp/setup su0phy.F90
mpa/conv/internals convect_updraft_shal.mnh

Doc:

1) Store vertical diffusion coefficients from non-linear model and use them in linear and adjoint model. A new keys is introduced : LVDIFSPNL (setup to FALSE), no impact if LVDIFSPNL=FALSE .

2) Cleaning of norm violations in modified routines.

Project: arpege
ClearCase branch: mrpa648_CY33T0_b296

Modified:

arp/module yomsimpl.F90
arp/namelist namsimpl.h
arp/phys_dmn aplpar.F90 aplparstl.F90 mf_phys.F90
 mf_phystl.F90
arp/setup su0phy.F90

Doc:

1/ Introduction of a new key LACDIFUS (setup to FALSE) to call ACDIFUS instead of ACDIFV1 and ACDIFV2 .
2/ Bug correction in CPG_DIA : Total precipitation flux were overwritten by stratiform flux.

Project: arpege
ClearCase branch: mrpa648_CY33T0_b297

Modified:

arp/adiab cpg_dia.F90
arp/module yomphy.F90
arp/namelist namphy.h
arp/phys_dmn aplpar.F90
arp/setup su0phy.F90

Doc:

Protection of Météo-France's physics against a bug introduced with alaro0 modset. With the cy33t0_T1 version of ARPEGE it is impossible to run a forecast from an ECMWF analysis. This modset allows the run of a Météo-France operational version of ARPEGE from an ECMWF analysis. Even with this modification a run of alaro0 physics from an ECMWF analysis is impossible.

Project: arpege
ClearCase branch: mrpa648_CY33T0_b298

Modified:

arp/phys_dmn achmt.F90 achmtad.F90 achmttl.F90

BOUYSSSEL Francois

Doc:

The solver routine for vertical diffusion "acdifus.F90" is splitted into three routines : "acdifv1.F90" and "acdifv2.F90" already developed in the past for SURFEX, and a new one "acdifus.F90" which contains the the interface between surface and vertical diffusion schemes existing in "acdifus.F90".

This development allows a simplification in the physics interface routine "aplpar.F90" where the routines "acdifv1.F90" and "acdifv2.F90" are always used with or without SURFEX.

In addition some computations linked with p-TKE scheme have been put in a dedicated new routine "acptke.F90".

Project: arpege

ClearCase branch: mrpa649_CY33T0_acdifv

Added:

arp/phys_dmn acptke.F90 arp_ground_param.F90

Modified:

arp/phys_dmn acdifv1.F90 acdifv2.F90 acptke.F90
aplpar.F90 arp_ground_param.F90

Doc:

1) Phasing of aplpar.F90 between mrpa649_CY33T0_acdifv and pre-cycle CY33T1 .

2) Cleaning of aro_ground_param.mnh to have several coupling options between surface and turbulence (I:fully implicit, E: fully explicit, V: implicit for wind and explicit for temperature and humidity).

Project: arpege,Meso-NH surface

ClearCase branch: mrpa649_CY33T0_aplpar

Modified:

arp/phys_dmn aplpar.F90
mse/externals aro_ground_param.mnh

Doc:

Correction of 2 merging bugs when using SURFEX in ALADIN .

Project: Meso-NH surface

ClearCase branch: mrpa649_CY33T0_bugcorsfx

Modified:

BROZKOVA Radmila

Doc:

3MT scheme update, small fixes and modification of ACHMT.

./arp/phys_dmn/aplmini.F90:

Simplified microphysics in order to estimate latent heat effect of falling precipitations.

./arp/namelist/namphy.h:

Add switches to control options of 3MT:

LRCVOTT, LNEBCV, NIMELIT, LCVGQD, and LCVGQM

./arp/namelist/namphy0.h:

Add 3MT tuning constants GCVTAUDE and RMULACVG.

./arp/module/yomphy.h:

Add switches to control options of 3MT:

LRCVOTT, LNEBCV, NIMELIT, LCVGQD, and LCVGQM

./arp/module/yomphy0.h:

Add 3MT tuning constants GCVTAUDE and RMULACVG.

./arp/setup/su0phy.F90:

Default values and prints for new 3MT options: LRCVOTT, LNEBCV, NIMELIT, LCVGQD, and LCVGQM.

./arp/phys_dmn/suphy0.F90:

Default values and prints for new 3MT tuning constants: GCVTAUDE and RMULACVG. Add print for TENTRD which was missing.

./arp/phys_dmn/mf_phys.F90:

Protection of initial values of 3MT prognostic variables when there is a special call to physics.

./arp/phys_dmn/aplpar.F90:

Modified treatment of historic convective cloudiness and detrained fraction when 3MT. Add option for humidity convergence closure, to allow for having its dynamical part only (when LCVGQD=.TRUE.). Fill optionally array of convective condensation ratio with respect to total condensation ratio (when LRCVOTT=.TRUE.) for the use in microphysics APLMPHYS.

./arp/phys_dmn/acnebcond.F90:

Fix of the Smith-Gerard option critical humidity computation.

./arp/phys_dmn/accdev.F90:

Fix of the Smith-Gerard option critical humidity computation.

./arp/phys_dmn/aplmpphys.F90:

Adding the option for simplified calls to processes of autoconversion and evaporation/melting.

./arp/phys_dmn/acevmel.F90:

Adding the option for a simplified computation of the process and also introducing the differentiation of melting versus freezing.

*./arp/phys_dmn/acacon.F90:
Adding the option to enable a simplified computation the process.*

*./arp/phys_dmn/accoll.F90:
Correction for the Arpege microphysics option.*

*./arp/phys_dmn/accvud.F90:
Introduction of one small term into the prognostic equation of updraft velocity; modification of the starting point of the saturated adiabatic ascent computation; modification of the ice fraction in the Newton loop for saturated adiabatic ascent; modification of closure computation with the possibility of modulation; adding the correction due to estimated latent heat of falling precipitation; new option for computation of detrained fraction; introduction of time decay for convective cloudiness.*

*./arp/phys_dmn/acmodo.F90:
Introduction of one small term into the prognostic equation of downdraft velocity; modification of the ice fraction computation.*

*./arp/phys_dmn/acupu.F90:
Modification in computation of historic convective cloudiness.*

*./arp/phys_dmn/acdifus.F90:
Change of the protection for LDIFCONS computations: allowed for 3MT and also ALARO-0 version without 3MT (LSTRAPRO switch).*

*./arp/phys_dmn/achmt.F90:
Modification of PGZ0H computation pending on land/sea mask; LRRGUST bloc is moved after the anti-fibrillation computation.*

*./arp/phys_dmn/achmttl.F90:
Coherent modification with the direct code.*

*./arp/phys_dmn/achmtad.F90:
Coherent modification with the direct and TL code.*

*./arp/phys_dmn/acmixlenz.F90:
Fix of the start/end of computations: use KIDIA, KFDIA.*

*./arp/phys_dmn/actqsats.F90:
Modification of the ice fraction computation.*

Project: arpege
ClearCase branch: mrpe684_CY33T0_alr02

Added:

arp/phys_dmn aplmini.F90

Modified:

arp/module	yomphy.F90	yomphy0.F90	
arp/namelist	namphy.h	namphy0.h	
arp/phys_dmn	acacon.F90	accdev.F90	accoll.F90
	accvud.F90	acdifus.F90	acevmel.F90

achmt.F90 achmtad.F90 achmttl.F90
acmixlenz.F90 acmodo.F90 acnebcond.F90
actqsats.F90 acupu.F90 aplmini.F90
aplmpphys.F90 aplpar.F90 mf_phys.F90
suphy0.F90
arp/setup su0phy.F90

Doc:

*Use of instantaneous detrained mesh fraction beside the cumulated detrained mesh fraction.
The modification does not change results, except if 3MT .*

Project: arpege
ClearCase branch: mrpe684_CY33T0_alr02f

Modified:

arp/phys_dmn accvud.F90 acupu.F90 aplpar.F90

CHAPNIK Bernard

Doc:

Add comments.

Project: arpege
ClearCase branch: mrpa658_CY33T0_coment

Modified:

arp/module yemvargp.F90

DESROZIERS Gerald

Doc:

This branch allows the computation of background error variances from an ensemble of perturbed analyses.

The computation is activated by the namelist parameter LBACKGE added in namelist namvar (computation is active if LBACKGE=.TRUE.).

The computation is performed in the new routine bgevecs that mimics what is done in routine bgvecs, where background error variances, in grid-point space, are diagnosed by a randomization procedure based on the matrix B specified in the variational assimilation scheme.

In bgevecs, the background error realizations are directly read from grib files corresponding to the different background error realizations given by an ensemble.

The sampling noise is filtered out by applying a spectral filter to variance fields.

A file with name sigma_b is produced, containing the variances of model variables at all model levels.

The computation of ensemble variances is made under a c131 configuration with the specification

of the following other namelist parameters:

```
&NAMJG
  CINBGSTATES='GRIBER',
  N_BGDATES=1,
  N_BGMEMBERS= number of ensemble members,
/
```

```
&NAMVAR
  LBACKGE=.TRUE.,
  LTOVSCV=.TRUE.,
  LAVCGL=.TRUE.,
  LBGTRUNC=.TRUE.,
  LWRISIGB=.TRUE.,
  LBG OBS=.FALSE.,
  NITER=1,
  NBGTRUNC= filtering truncation,
/
```

Project: arpege
ClearCase branch: mrpm611_CY33T0_siglab_ensemble_op1

Added:

arp/var bgevecs.F90

Modified:

arp/control forecast_error.F90
arp/module yomvar.F90
arp/namelist namvar.h
arp/var bgevecs.F90 suvar.F90

EL-KHATIB Ryad

Doc:

Portability fix.

Project: auxiliaire
ClearCase branch: mrpm602_CY33T0_4emu

Modified:

xrd/module quad_emu.F90

Doc:

- fix improper initialisations of variables in post-processing (pos.F90, endpos.F90, apache.F90) ;
- fix a memory corruption in su_surf_flds.F90 ;
- portability fix : remove EXTERNAL attribute for GETENV and IARGC in qscat programs ;
- portability workaround in drhook.c for Darwin systems : dummy feenableexcept and fedisableexcept ;

- fix norms violations in endpos.F90 .

Project: arpege,utilitaires,auxiliaire
ClearCase branch: mrpm602_CY33T0_gnu

Modified:

arp/c9xx	apache.F90	
arp/pp_obs	endpos.F90	pos.F90
arp/setup	su_surf_flds.F90	
uti/prescat/afilter	ascat_bufr_filter.F	
uti/prescat/etimesort	timesort.F	
uti/prescat/qbukey	bufr_qscat.F	
uti/prescat/qfilter	qscat_filter_bufr25km.F	
uti/prescat/qretrieve	qscat25to50km.F	
xrd/support	drhook.c	

Doc:

Bugfix for the making of rotated Mercator projection.

Project: utilitaires
ClearCase branch: mrpm602_CY33T0_jdg

Modified:

uti/pinuts/module makdo_prg_mod.F90

Doc:

arp/dia/fpsnorm.F90:
Fix a potentially bad initialization of output argument PAVEG .

arp/setup/sugridadm.F90:
Bugfix.

arp/setup/sumpout.F90:
Portability fix for g95 .

odb/lib/codb.c:
Bugfix for Bator on IBM computers.

arp/setup/sumcuf.F90:
Fix an overflow of array.

tal/module/suemplat_mod.F90:
Reduce printouts.

arp/utility/gstats_output_ifs.F90:
Fix faulty LSTATS logic.

arp/setup/suarg.F90:
Node consistent file check.

arp/dia/wrmlppadm.F90
arp/parallel/gathflnm.F90
arp/utility/prepacka.F90:

Safe copy of reals Some REAL arrays used for GRIB output may carry INTEGERS that cannot be represented as floating points. Avoid exceptions by using a c-memcopy instead of a fortran copy

Project: arpege,odb,transformées aladin

ClearCase branch: mrpm602_CY33T0_port

Modified:

arp/dia	fpsnorm.F90	wrmlppadm.F90
arp/parallel	gathflnm.F90	
arp/setup	suarg.F90	sugridadm.F90 sumcuf.F90
	sumpout.F90	
arp/utility	gstats_output_ifs.F90	prepacka.F90
odb/lib	codb.c	
tal/module	suemplat_mod.F90	

GCO

Doc:

New program MERGE_VARBC allowing to merge two VARBC.cycle files .
Inputs: VARBC.cycle and VARBC.cycle2 (typically: VARBC.cycle from ARPEGE, and VARBC.cycle2 from ALADIN).
Output: VARBC.cycle_out .

Project: utilitaires

ClearCase branch: marp001_CY33T0_mergeVarbc

Added:

uti/merge_varbc merge_varbc.F90

Modified:

uti/merge_varbc merge_varbc.F90

Doc:

1) Modifications from Françoise Taillefer:

- * inclitc.F90: add LELAM case for NESDIS SST interpolation.
- * caclsst.F90: add LELAM case for NESDIS SST interpolation and setting up of alarm files for operational suite.
- * caclsi.F90: handle T2M and Hu2M from guess and not from ACHMT output.

2) Modifications from Jean-Marc Audoin:

- * New program "addsurf", allowing to open an FA file and add fields to this file.

** New conformity between ARPEGE/ALADIN/AROME fields and grib codes for surface fields: new CAPE and new equilibrium level.*

Project: arpege,utilitaires
ClearCase branch: marp001_CY33T0_op1

Added:

uti/addsurf proajout.F proajoutec.F prolecfa.F

Modified:

arp/c9xx inclitc.F90
arp/canari caclsi.F90 caclsst.F90
uti/addsurf proajout.F proajoutec.F prolecfa.F
uti/progrid procor2.F

Doc:

Remove "_aro" from files names.

Project:
ClearCase branch: marp001_CY33T0_rename_aro

Renamed:

mse/internals error_read_aro.mnh to mse/internals/error_read.mnh
error_write_aro.mnh to mse/internals/error_write.mnh
fm_read_aro.mnh to mse/internals/fm_read.mnh
fm_writ_aro.mnh to mse/internals/fm_writ.mnh
fmattr_aro.mnh to mse/internals/fmattr.mnh
fmclos_aro.mnh to mse/internals/fmclos.mnh
fmfree_aro.mnh to mse/internals/fmfree.mnh
fminit_aro.mnh to mse/internals/fminit.mnh
fmlook_aro.mnh to mse/internals/fmlook.mnh
fmopen_aro.mnh to mse/internals/fmopen.mnh
fmreadc0_aro.mnh to mse/internals/fmreadc0.mnh
fmreadl0_aro.mnh to mse/internals/fmreadl0.mnh
fmreadl1_aro.mnh to mse/internals/fmreadl1.mnh
fmreadn0_aro.mnh to mse/internals/fmreadn0.mnh
fmreadn1_aro.mnh to mse/internals/fmreadn1.mnh
fmreadn2_aro.mnh to mse/internals/fmreadn2.mnh
fmreadt0_aro.mnh to mse/internals/fmreadt0.mnh
fmreadx0_aro.mnh to mse/internals/fmreadx0.mnh
fmreadx1_aro.mnh to mse/internals/fmreadx1.mnh
fmreadx2_aro.mnh to mse/internals/fmreadx2.mnh
fmreadx3_aro.mnh to mse/internals/fmreadx3.mnh
fmreadx4_aro.mnh to mse/internals/fmreadx4.mnh
fmreadx5_aro.mnh to mse/internals/fmreadx5.mnh
fmreadx6_aro.mnh to mse/internals/fmreadx6.mnh
fmwritc0_aro.mnh to mse/internals/fmwritc0.mnh

fmwritl0_aro.mnh to mse/internals/fmwritl0.mnh
fmwritl1_aro.mnh to mse/internals/fmwritl1.mnh
fmwritn0_aro.mnh to mse/internals/fmwritn0.mnh
fmwritn1_aro.mnh to mse/internals/fmwritn1.mnh
fmwritn2_aro.mnh to mse/internals/fmwritn2.mnh
fmwritt0_aro.mnh to mse/internals/fmwritt0.mnh
fmwritx0_aro.mnh to mse/internals/fmwritx0.mnh
fmwritx1_aro.mnh to mse/internals/fmwritx1.mnh
fmwritx2_aro.mnh to mse/internals/fmwritx2.mnh
fmwritx3_aro.mnh to mse/internals/fmwritx3.mnh
fmwritx4_aro.mnh to mse/internals/fmwritx4.mnh
fmwritx5_aro.mnh to mse/internals/fmwritx5.mnh
fmwritx6_aro.mnh to mse/internals/fmwritx6.mnh
ini_sun_aro.mnh to mse/internals/ini_sun.mnh
ini_sw_setup_aro.mnh to mse/internals/ini_sw_setup.mnh
old_ndim_aro.mnh to mse/internals/old_ndim.mnh
pack_1d_1d_from2d_aro.mnh to mse/internals/pack_1d_1d_from2d.mnh
pack_1d_1d_from3d_aro.mnh to mse/internals/pack_1d_1d_from3d.mnh
pack_1d_1d_from4d_aro.mnh to mse/internals/pack_1d_1d_from4d.mnh
pack_1d_1d_fromi2d_aro.mnh to mse/internals/pack_1d_1d_fromi2d.mnh
pack_2d_1d_from2d_aro.mnh to mse/internals/pack_2d_1d_from2d.mnh
pack_2d_1d_from3d_aro.mnh to mse/internals/pack_2d_1d_from3d.mnh
pack_2d_1d_from4d_aro.mnh to mse/internals/pack_2d_1d_from4d.mnh
pack_2d_1d_fromi2d_aro.mnh to mse/internals/pack_2d_1d_fromi2d.mnh
pack_2d_1d_froml2d_aro.mnh to mse/internals/pack_2d_1d_froml2d.mnh
read_in_lfi_x2_aro.mnh to mse/internals/read_in_lfi_x2.mnh
read_in_lfi_x3_aro.mnh to mse/internals/read_in_lfi_x3.mnh
unpack_1d_1d_from2d_aro.mnh to mse/internals/unpack_1d_1d_from2d.mnh
unpack_1d_1d_from3d_aro.mnh to mse/internals/unpack_1d_1d_from3d.mnh
unpack_1d_1d_from4d_aro.mnh to mse/internals/unpack_1d_1d_from4d.mnh
unpack_1d_1d_fromi2d_aro.mnh to mse/internals/unpack_1d_1d_fromi2d.mnh
unpack_1d_2d_from2d_aro.mnh to mse/internals/unpack_1d_2d_from2d.mnh
unpack_1d_2d_from3d_aro.mnh to mse/internals/unpack_1d_2d_from3d.mnh
unpack_1d_2d_from4d_aro.mnh to mse/internals/unpack_1d_2d_from4d.mnh
unpack_1d_2d_fromi2d_aro.mnh to mse/internals/unpack_1d_2d_fromi2d.mnh
write_in_lfi_x1_aro.mnh to mse/internals/write_in_lfi_x1.mnh
write_in_lfi_x2_aro.mnh to mse/internals/write_in_lfi_x2.mnh
write_in_lfi_x3_aro.mnh to mse/internals/write_in_lfi_x3.mnh

mse/module

modd_bufc0_aro.mnh to mse/module/modd_bufc0.mnh
modd_bufn0_aro.mnh to mse/module/modd_bufn0.mnh
modd_bufn1_aro.mnh to mse/module/modd_bufn1.mnh
modd_bufx0_aro.mnh to mse/module/modd_bufx0.mnh
modd_bufx1_aro.mnh to mse/module/modd_bufx1.mnh
modd_fmdeclar_aro.mnh to mse/module/modd_fmdeclar.mnh
modd_fmmulti_aro.mnh to mse/module/modd_fmmulti.mnh
modd_io_nam_aro.mnh to mse/module/modd_io_nam.mnh
modi_fmread_aro.mnh to mse/module/modi_fmread.mnh
modi_fmwrite_aro.mnh to mse/module/modi_fmwrite.mnh
modi_ini_sw_setup_aro.mnh to mse/module/modi_ini_sw_setup.mnh
modi_pack_1d_1d_aro.mnh to mse/module/modi_pack_1d_1d.mnh

modi_pack_2d_1d_aro.mnh to mse/module/modi_pack_2d_1d.mnh
modi_unpack_1d_1d_aro.mnh to mse/module/modi_unpack_1d_1d.mnh
modi_unpack_1d_2d_aro.mnh to mse/module/modi_unpack_1d_2d.mnh

Doc:

1) Fix miscellaneous phasing errors.

2) Fix the problem in ARPEGE of the use of the "not always intrinsic" GAMMA function, but redefined in the module YOMGAMMA. The function is renamed as GENERALIZED_GAMMA to avoid any confusion and portability problem.

3) Move modi_gammas.mnh to mse/module directory.

1/ Remove a useless duplicated "end" at the end of the subroutine (splie.F).
2/ Remove obsolete routines.

Project: Meso-NH surface,utilitaires,auxiliaire
ClearCase branch: marp001_CY33T0_t1bf

Renamed:

mse/internals modi_gammas.mnh to mse/module/modi_gammas.mnh

Deleted:

uti/prescat/dcone_qc QSCAT_DCONE_QC.F
uti/prescat/qfilter QFILTER.F
uti/prescat/qretrieve QSCAT_25_2_50.F uv2sd.F
xrd/fa getfadate.F

Modified:

arp/control forecast_error.F90
arp/dia aro_surf_diagh.F90
arp/module yomclmicst.F90 yomgamma.F90
arp/phys_dmn advprc.F90 advprcs.F90 mts_phys.F90
arp/pp_obs endpos.F90 phymfpos.F90 reflsim.F90
reflsim_2dop.F90 vpos.F90
arp/setup suxfu.F90
mpa/micro/externals aro_adjust.mnh
mse/internals splie.F
sat/interface getcparam.h
sat/rttov getcparam.F90

Doc:

Catch-up of parallel suite.

Project: arpege,black_list,Meso-NH surface,,odb,satrad,utilitaires
ClearCase branch: marp003_CY33T0_T1op1

Added:

odb/ddl.CCMA obstat_radwd.sql
 odb/ddl.ECMA obstat_radwd.sql
 odb/ddl obstat_radwd.sql

Modified:

arp/obs_preproc	fgchk.F90		
arp/pp_obs	radtrcld.F90	reflsim.F90	
bla	mf_blacklist.b		
mse/internals	unitfp_seaflux.mnh		
obt/module	obsdata.F90		
obt/src	iniglob.F90	inisoftdef.F90	odbread.F90
	odbscatamb.F90	plotrms.F90	plotrmsbias.F90
	plotsoft.F90	updsoft.F90	
odb/ddl	obstat_radwd.sql		
sat/bias	getbcccoef.F90	getbias.F90	
uti/include	oulan_yomcsts.h	oulan_yomdirs.h	
uti/module	bator_decodbufr_mod.F90		
uti/namelist	oulan_nadirs.h		
uti/oulan	ext_acar.F	ext_airep.F	ext_airsbt.F
	ext_atovs.F	ext_bathy.F	ext_buoy.F
	ext_cyclone.F	ext_ers1.F	ext_europrofil.F
	ext_gpssol.F	ext_paobreu.F	ext_pilot.F
	ext_profiler.F	ext_radomeh.F	ext_satem.F
	ext_satgeo.F	ext_satob.F	ext_ssmi.F
	ext_ssmice.F	ext_synop.F	ext_synor.F
	ext_temp.F	ext_tesac.F	ext_tovs.F
	ext_tovsamsua.F	ext_tovsamsub.F	ext_tovshirs.F
	ext_tovshirs_ech.F	ext_tovsmsu.F	oulan.F
	oulan_extract.F	oulan_init.F	oulan_mkpack_triolet
	oulan_namelist.F		

GUIDARD Vincent**Doc:**

*Reading of grid-point background error standard deviations enabled for lfs/Arpège/Aladin on a Gaussian or lat-lon grid:
 namelist parameter LSBLATLONG (replacing LDLATLONG as a namelist variable) added to NAMJG:*

.F. (default) = background error standard deviations read on a Gaussian grid ;

.T. = background error standard deviations read on a lat-lon grid .

(STRAJNAR Benedikt, EL OUARAINI Rachida and BERRE Loïk)

Project: arpege

ClearCase branch: mrpe710_CY33T0_Berre_latlon

Modified:

arp/module yomjg.F90
arp/namelist namjg.h
arp/var suinfce.F90 subj.F90

Doc:

*New program MERGE_VARBC allowing to merge two VARBC.cycle files .
Inputs: VARBC.cycle and VARBC.cycle2 (typically: VARBC.cycle from ARPEGE, and
VARBC.cycle2 from ALADIN).
Output: VARBC.cycle_out .*

Project: arpege
ClearCase branch: mrpe710_CY33T0_mergeVarbc

Added:

arp/var gtvarbc_groupid.F90

Modified:

arp/control cnt1.F90
arp/var gtvarbc_groupid.F90 rdvarbc.F90 suvarbc.F90
svvarbc.F90 wrvarbc.F90

MONTMERLE Thibaut

Doc:

*Add variables RMIND_RADAR and RFIND_RADAR ins NAMSCC namelist. This change
allow to change size of thinnig boxes in namelist.*

Project: arpege
ClearCase branch: mrpa666_CY33T0_radar_tm

Modified:

arp/namelist namsccl.h

Doc:

*1/ Blacklisting of Arcis radar.
2/ Report of re-bought pixels status in median filtering.
3/ Increase the handle of radial speeds quality control.*

Project: arpege,black_list,utilitaires
ClearCase branch: mrpa666_CY33T0_t1_radar_bugfix_tm

Modified:

arp/obs_preproc first.F90
bla mf_blacklist.b

uti/module bator_decodbufr_mod.F90 bator_util_mod.F90

PAYAN Christophe

Doc:

- 1) Update of VarQC flag in ODB bases by namelist modification .
- 2) Phasing uti/prescat with scat project of ECMWF :
 - (implicit) processing of new NESDIS QuikSCAT flux, foreseen to be operational in June 2008 ;
 - set flag status.rejected for the most distant (from analyse) ambiguous scatt wind in last trajectory.
- 3) Reject threshold for ascat datas based on distance to the cone.

Project: arpege,utilitaires
ClearCase branch: mrpa642_CY33T0_T1_cleanquik

Modified:

arp/obs_preproc sufglim.F90
uti/prescat/dcone_qc QSCAT_DCONe_QC.F
uti/prescat/qfilter QFILTER.F
uti/prescat/qretrieve QSCAT_25_2_50.F uv2sd.F

SAEZ Patrick

Doc:

Fix a use of a REAL index in array ZWP_SAT (NINT instruction was missing).

Project: arpege
ClearCase branch: mrpm608_CY32T0_c901

Modified:

arp/control cprep1.F90

SEITY Yann

Doc:

*With this modset, in Fullpos, we can simulate the following satellite radiances in Fullpos, using RTTOVCLD .
The old way of calculations of IR or WV radiances done during the forecast in aplpar by using XFU has been cleaned.*

Project: arpege,satrad
ClearCase branch: mrpm637_CY33T0_MTS

Added:

arp/setup suphyfp.F90

Modified:

arp/adiab	cpg.F90	cpg_dia.F90	
arp/control	scan2mdm.F90		
arp/dia	cpxfu.F90		
arp/module	ptrxfu.F90	yomafn.F90	yomtvrad.F90
	yomxfu.F90		
arp/namelist	namafn.h		
arp/phys_dmn	aplpar.F90	hl_aplpar.F90	initaplpar.F90
	mf_phys.F90	mts_phys.F90	
arp/pp_obs	hpos.F90	phymfpos.F90	vpos.F90
arp/setup	suafn1.F90	suafn2.F90	suafn3.F90
	suphy.F90	suphyfp.F90	suxfu.F90
	suxfufp.F90		
sat/rttov	phrtsetup.F90	rttovcld.F90	

Doc:

- * *aroini_surf.mnh*: make less strict a too severe test.
- * *recmwf.F90*: set to 0 during the night the direct and diffused solar fluxes on the 6 spectral bands sent to *Surfex*.
- * *getcparam.F90*: fix an error on the use of a module, useful for full-pos simulated satellite images.
- * Fix a forbidden direct call (in ARPEGE) of routine *mse/externals/put_zs.mnh* .

Project: arpege,Meso-NH surface,satrad
ClearCase branch: mrpm637_CY33T0_arome_bf2

Added:

mse/externals aro_put_zs.mnh
mse/interface aro_put_zs.h

Modified:

arp/phys_dmn	recmwf.F90	
arp/pp_obs	fp2sx1.F90	
mse/externals	aro_put_zs.mnh	aroini_surf.mnh
mse/interface	aro_put_zs.h	
sat/rttov	getcparam.F90	

Doc:

arp/dia/aro_surf_diagh.F90
arp/module/yomamarar.F90
arp/phys_dmn/suparar.F90
mse/externals/aro_surf_diag.mnh

mse/interface/aro_surf_diag.h:
Fix management of writing surfex files in ALADIN .

arp/setup/sumts.F90
arp/setup/suphy.F90
arp/setup/suphyfp.F90:
Fix in aim to change default values in namelist for simulated fullpos satellite images.

mse/internals/gammas.mnh
mse/internals/init_top.mnh
mse/internals/modi_gammas.mnh:
Fix use of GAMMA function in surfex: the Meso-NH GAMMA routines has been introduced and renamed.

Add optional output argument KJPNSAT to getcparam.F90 , in aim to add the possibility to get the value of NJPNSAT by a call of GETCPARAM in MTS_PHYS .

** suct0.F90: fix a bad initialization of NSHISTS and NFSRHIS in the case of configuration 601 .*
** vpos.F90: initialize hail field to 0 when it is not activated (crash in configuration 927).*

Project: arpege
ClearCase branch: mrpm637_CY33T0_aromebfs

Added:

mse/internals gammas.mnh modi_gammas.mnh

Modified:

arp/dia	aro_surf_diagh.F90		
arp/module	yomalar.F90		
arp/phys_dmn	mts_phys.F90	suparar.F90	
arp/pp_obs	vpos.F90		
arp/setup	suct0.F90	sumts.F90	suphy.F90
	suphyfp.F90		
mse/externals	aro_surf_diag.mnh		
mse/interface	aro_surf_diag.h		
mse/internals	gammas.mnh	init_top.mnh	modi_gammas.mnh
sat/interface	getcparam.h		
sat/rttov	getcparam.F90		

Doc:

Bugfix.

Project: Meso-NH physique altitude
ClearCase branch: mrpm637_CY33T0_bfsAROME

Modified:

mpa/turb/internals bl89.mnh

Doc:

1/ Bugfix n° 3 of surfex:

- fix of z0eff in Aladin case;
- fix an array overflow in canopy;
- fix a vectorization problem;
- fix a crash in Isba DF;
- initialization of water content from CEP files, which handle many kinds of soils to compute SWI ;

2/ Modeset allowing to modify Ri in namelist:

- fix allowing to adjust the parameter XRIMAX in the namelist NAM_SURF_ATM (default is 0.2) .

3/ Fix a bug, only active when ECUME fluxes on sea where handled in surfex .

Project: Meso-NH surface

ClearCase branch: mrpm637_CY33T0_mrpm637_CY33T0_surfex3_bf3

Added:

mse/internals heatcapz.mnh

mse/module modd_surf_atm.mnh modi_heatcapz.mnh

Renamed:

mse/internals error_read.mnh to mse/internals/error_read_aro.mnh
error_write.mnh to mse/internals/error_write_aro.mnh
fm_read.mnh to mse/internals/fm_read_aro.mnh
fm_writ.mnh to mse/internals/fm_writ_aro.mnh
fmattr.mnh to mse/internals/fmattr_aro.mnh
fmclos.mnh to mse/internals/fmclos_aro.mnh
fmfree.mnh to mse/internals/fmfree_aro.mnh
fminit.mnh to mse/internals/fminit_aro.mnh
fmlook.mnh to mse/internals/fmlook_aro.mnh
fmopen.mnh to mse/internals/fmopen_aro.mnh
fmreadc0.mnh to mse/internals/fmreadc0_aro.mnh
fmreadl0.mnh to mse/internals/fmreadl0_aro.mnh
fmreadl1.mnh to mse/internals/fmreadl1_aro.mnh
fmreadn0.mnh to mse/internals/fmreadn0_aro.mnh
fmreadn1.mnh to mse/internals/fmreadn1_aro.mnh
fmreadn2.mnh to mse/internals/fmreadn2_aro.mnh
fmreadt0.mnh to mse/internals/fmreadt0_aro.mnh
fmreadx0.mnh to mse/internals/fmreadx0_aro.mnh
fmreadx1.mnh to mse/internals/fmreadx1_aro.mnh
fmreadx2.mnh to mse/internals/fmreadx2_aro.mnh
fmreadx3.mnh to mse/internals/fmreadx3_aro.mnh
fmreadx4.mnh to mse/internals/fmreadx4_aro.mnh
fmreadx5.mnh to mse/internals/fmreadx5_aro.mnh
fmreadx6.mnh to mse/internals/fmreadx6_aro.mnh
fmwritc0.mnh to mse/internals/fmwritc0_aro.mnh

fmwritl0.mnh to mse/internals/fmwritl0_aro.mnh
fmwritl1.mnh to mse/internals/fmwritl1_aro.mnh
fmwritn0.mnh to mse/internals/fmwritn0_aro.mnh
fmwritn1.mnh to mse/internals/fmwritn1_aro.mnh
fmwritn2.mnh to mse/internals/fmwritn2_aro.mnh
fmwritt0.mnh to mse/internals/fmwritt0_aro.mnh
fmwritx0.mnh to mse/internals/fmwritx0_aro.mnh
fmwritx1.mnh to mse/internals/fmwritx1_aro.mnh
fmwritx2.mnh to mse/internals/fmwritx2_aro.mnh
fmwritx3.mnh to mse/internals/fmwritx3_aro.mnh
fmwritx4.mnh to mse/internals/fmwritx4_aro.mnh
fmwritx5.mnh to mse/internals/fmwritx5_aro.mnh
fmwritx6.mnh to mse/internals/fmwritx6_aro.mnh
ini_sun.mnh to mse/internals/ini_sun_aro.mnh
ini_sw_setup.mnh to mse/internals/ini_sw_setup_aro.mnh
old_ndim.mnh to mse/internals/old_ndim_aro.mnh
pack_1d_1d_from2d.mnh to mse/internals/pack_1d_1d_from2d_aro.mnh
pack_1d_1d_from3d.mnh to mse/internals/pack_1d_1d_from3d_aro.mnh
pack_1d_1d_from4d.mnh to mse/internals/pack_1d_1d_from4d_aro.mnh
pack_1d_1d_fromi2d.mnh to mse/internals/pack_1d_1d_fromi2d_aro.mnh
pack_2d_1d_from2d.mnh to mse/internals/pack_2d_1d_from2d_aro.mnh
pack_2d_1d_from3d.mnh to mse/internals/pack_2d_1d_from3d_aro.mnh
pack_2d_1d_from4d.mnh to mse/internals/pack_2d_1d_from4d_aro.mnh
pack_2d_1d_fromi2d.mnh to mse/internals/pack_2d_1d_fromi2d_aro.mnh
pack_2d_1d_froml2d.mnh to mse/internals/pack_2d_1d_froml2d_aro.mnh
read_in_lfi_x2.mnh to mse/internals/read_in_lfi_x2_aro.mnh
read_in_lfi_x3.mnh to mse/internals/read_in_lfi_x3_aro.mnh
unpack_1d_1d_from2d.mnh to mse/internals/unpack_1d_1d_from2d_aro.mnh
unpack_1d_1d_from3d.mnh to mse/internals/unpack_1d_1d_from3d_aro.mnh
unpack_1d_1d_from4d.mnh to mse/internals/unpack_1d_1d_from4d_aro.mnh
unpack_1d_1d_fromi2d.mnh to mse/internals/unpack_1d_1d_fromi2d_aro.mnh
unpack_1d_2d_from2d.mnh to mse/internals/unpack_1d_2d_from2d_aro.mnh
unpack_1d_2d_from3d.mnh to mse/internals/unpack_1d_2d_from3d_aro.mnh
unpack_1d_2d_from4d.mnh to mse/internals/unpack_1d_2d_from4d_aro.mnh
unpack_1d_2d_fromi2d.mnh to mse/internals/unpack_1d_2d_fromi2d_aro.mnh
write_in_lfi_x1.mnh to mse/internals/write_in_lfi_x1_aro.mnh
write_in_lfi_x2.mnh to mse/internals/write_in_lfi_x2_aro.mnh
write_in_lfi_x3.mnh to mse/internals/write_in_lfi_x3_aro.mnh

mse/module modd_bufc0.mnh to mse/module/modd_bufc0_aro.mnh
modd_bufn0.mnh to mse/module/modd_bufn0_aro.mnh
modd_bufn1.mnh to mse/module/modd_bufn1_aro.mnh
modd_bufx0.mnh to mse/module/modd_bufx0_aro.mnh
modd_bufx1.mnh to mse/module/modd_bufx1_aro.mnh
modd_fmdeclar.mnh to mse/module/modd_fmdeclar_aro.mnh
modd_fmmulti.mnh to mse/module/modd_fmmulti_aro.mnh
modd_io_nam.mnh to mse/module/modd_io_nam_aro.mnh
modi_fmread.mnh to mse/module/modi_fmread_aro.mnh
modi_fm writ.mnh to mse/module/modi_fm writ_aro.mnh
modi_ini_sw_setup.mnh to mse/module/modi_ini_sw_setup_aro.mnh
modi_pack_1d_1d.mnh to mse/module/modi_pack_1d_1d_aro.mnh

modi_pack_2d_1d.mnh to mse/module/modi_pack_2d_1d_aro.mnh
modi_unpack_1d_1d.mnh to mse/module/modi_unpack_1d_1d_aro.mnh
modi_unpack_1d_2d.mnh to mse/module/modi_unpack_1d_2d_aro.mnh

Modified:

mse/internals	allocate_gr_snow.mnh	average_diag.mnh	averaged_albedo_emis_isba.mnh
	canopy_grid_update.mnh	default_surf_atm.mnh	detect_field.mnh
	diag_misc_isba_n.mnh	drag.mnh	gammas.mnh
	get_mesh_dim.mnh	heatcapz.mnh	init_isba_n.mnh
	init_surf_atm_n.mnh	init_top.mnh	isba.mnh
	mkflag_snow.mnh	pack_isba_patch_n.mnh	prep_isba_ascllv.mnh
	read_gr_snow.mnh	soildif.mnh	surf_version.mnh
	thrmcondz.mnh	unitfp_seaflux.mnh	write_diag_pgd_isba_n.mnh
	writesurf_gr_snow.mnh	z0eff.mnh	
mse/module	modd_surf_atm.mnh	mode_read_grib.mnh	modi_default_surf_atm.mnh
	modi_heatcapz.mnh	modi_thrmcondz.mnh	

Doc:

Fix norm violations.

Project: arpege,Meso-NH surface
ClearCase branch: mrpm637_CY33T0_normviol

Modified:

arp/adiab	cpg_pt.F90		
arp/c9xx	aval.F90		
arp/dia	wrmlppadm.F90		
arp/module	ptrxfu.F90		
arp/phys_dmn	apl_arome.F90	hl_aplpar.F90	mts_phys.F90
	suphmse.F90		
arp/pp_obs	fpcordyn.F90	phymfpos.F90	
arp/setup	sufa.F90	suphyfp.F90	suxfu.F90
	suxfufp.F90		
mse/internals	read_surf10_aro.mnh		

Doc:

Since the inclusion of MASDEV47 mesoNH sources in CY32T2, AROME potentially had the capability to use prognostic hail. The GFL declaration, and fullpos treatment has been added to allow AROME's users to activate this new microphysical variable 'HAIL'. Grib codes were also declared in progrid (use ~mrpe602/SXbin/PROGRID_15012008).

According to the tests performed in AROME and Meso-NH, Hail should not be activated for that stage, some process may have been missed in the microphysics. The activation of hail scheme lead to a large overestimation of surface precipitations.

For the time being, hail has not been added into radar reflectivity simulator.

In Fullpos, cumulated (SURFACCGRELE) or instantaneous (SURFINSGRELE) surface precipitations could be interpolated, 3D field named HAIL also.

Project: arpege,Meso-NH physique altitude

ClearCase branch: mrpm637_CY33_hail

Modified:

arp/adiab	cpg.F90	cpg_pt.F90	cputqy_arome.F90
arp/c9xx	apache.F90	aval.F90	
arp/control	scan2mdm.F90		
arp/module	gfl_subs.F90	yom_ygfl.F90	yomafn.F90
	yomamarar.F90	yomfa.F90	
arp/namelist	namafn.h	namfa.h	namgfl.h
	namparar.h		
arp/phys_dmn	apl_arome.F90	mf_phys.F90	suparar.F90
arp/pp_obs	endpos.F90	endvpos.F90	fpcordyn.F90
	pos.F90	ppobsap.F90	vpos.F90
arp/setup	suafn1.F90	suafn2.F90	suafn3.F90
	suctrl_gflattr.F90	sudefo_gflattr.F90	sudim1.F90
	sudyn_setgflattr.F90	sufa.F90	sugfl.F90
mpa/micro/externals	aro_adjust.mnh	aro_rain_ice.mnh	
mpa/micro/interface	aro_rain_ice.h		
mpa/micro/internals	ini_rain_ice.mnh	rain_ice.mnh	

Sylvie Malardel

Doc:

Modset for the radiation scheme.

Project: arpege

ClearCase branch: marp001_CY33T0_arome_sylvie

Modified:

arp/phys_ec swni.F90

WATTRELOT Eric

Doc:

Flash back on an hard-coded array dimensionning (JP...), used in "bufr" and BATOR .

Project: odb

ClearCase branch: mrpa652_CY33T0_33t0_T1_v01_radar_ew

Modified:

odb/module bufr_module.F90