



Obstat

- `obstat kind=8`
- interface *obstat* sous olive
- interface *obstat_plot* sous olive
- runs directs sur `sxobs1` et `sxproc1`
- la « documentation »



Obstat kind=8

- ✓ Calcul de statistiques obstat.F90
fichier stat.def
namelist
contenu des fichiers
- ✓ Archivage
- ✓ Tracés

Fichier "stat.def" HOV, GEO

#obstat version 0

BEGIN STATDEF

comment= 'AMSUA Tb'

statkind= 8

lowresgrib= y → *fichiers grib HOV**

highresgrib= y → *fichiers grib GEO**

areaNSEW= GLOBE

grid= REGULAR 1.5 30. 2.5

surfaces= 2 4

types= 54 55

odb : 210 cf *lodbstat*

params= 12062

odb : 119

items= 8 9 10 18

instrument= 20703

flagfilter= 2 40

odbcodes.cfg

END STATDEF

12062 119 Tb brightness temperature (K)

Namelist

&NAMOBSSTAT

```
cstatinFname='statin.txt'  
cstatoutFname='statout.txt'  
cgenecfgFname='general.cfg'  
ccodecfgFname='odbcodes.cfg'  
lplot=.false.
```

```
lodbstat=.false.
```

→ type, param en format bufr

```
lwrbufrtype=.true.
```

```
iverb=0
```

```
cobsformat='ODB'
```

```
idatecycle=2012120700
```

```
odbfiletype='ECMA'
```

```
cexpver='TEST'
```

} → nom de fichier

```
cstream='arpA'
```

```
window_length_4d=6
```

```
window_offset_4d=3
```

} → période de calcul

```
period_4d=6
```

```
lgenopt=.false.
```

```
ctovsornot='tavs'
```

/

Fichier grib HOV

HOVgrib_TEST_arpA_tovs_tb_207_003_20121207_0000

TEST ← cexpver (namelist)
arpA ← cstream (namelist) arp=modele A=analyse
tovs ← odbcode.cfg ← items (stat.def)
tb ← odbcode.cfg ← params (stat.def)
modif dans writegribs.F90 et writescat.F90
207_003 ← instrument (stat.def)
20121207_0000 ← idatecycle (namelist) ← odb (procédure)

Contenu du fichier : EXE_decodgrib.ksh (/sxobs1/home/puech/OBSTAT/PROC_osbstat)

→ Environnement procédure

--- Environnement ---

cycle : 38 ← \$OBSTAT_cycle
DIR_api : /home/puech/UTIL/LIB/LIB_grib_api/grib_api-1.9.16
direxec : /sxobs1/home/puech/OBSTAT/EXEC/CY38 ← \$OBSTAT_direxec
dirwork : /home/puech/TMP/RUN ← \$OBSTAT_dirwork
exe : decod_grib-38.x

Fichier grib HOV

Contenu du fichier

HOVgrib_TEST_arpA_tovs_tb_207_003_20121207_0000

→ Index

```
--- grib_index_build: processing GRIB
--- grib_index_build: keys included in the index file GRIB.idx:
--- observationDiagnostic, dataSelection, mask, scaledValueOfFirstFixedSurface
--- observationDiagnostic = { 2, 4, 6, 18, 3, 5, 7, 19, 199 }
--- dataSelection = { 2, 40 }
--- mask = { 2, 4 }
--- scaledValueOfFirstFixedSurface = { 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 }
--- 288 messages indexed
```

← Obstat.9.0.table

→ ----- index - valeurs uniques -----

```
date : 20121206
time : 2100
platform : 207
scan : 0
dataStream : 255
phase : 0
level2 : -1
Grid def. : regular_ll 0
```

Fichier grib HOV

Contenu du fichier

HOVgrib_TEST_arpA_tovs_tb_207_003_20121207_0000

→ ----- fichier -----

nb mess = 288

Date deb : 20121206-2100

Date fin : 20121207-0300

observationDiagnostic :

2 'obs'

3 'obs_stdv'

4 'fgdep'

5 'fgdep_stdv'

6 'andep'

7 'andep_stdv'

18 'bcor'

19 'bcor_stdv'

199 '199'

stream : '255'

platform : 207 NOAA-16

inst/sensor : 3 AMSUA

surf : 2 Sea

surf : 4 All_surfaces

flag : 2 All

flag : 40 Clear

timeIncrement : 6 H (1)

experimentVersionNumber : TEST

latitudeOfFirstGridPointInDegrees : 88.750000 88.750000

longitudeOfFirstGridPointInDegrees : 15.000000 15.000000

latitudeOfLastGridPointInDegrees : -88.750000 -88.750000

longitudeOfLastGridPointInDegrees : 345.000000 345.000000

iDirectionIncrementInDegrees : 30.000000 30.000000

jDirectionIncrementInDegrees : 2.5000000 2.5000000

numberOfPointsAlongAParallel : 12 12

numberOfPointsAlongAMeridian : 72 72

numberOfDataPoints : 864 864

unit : K

Fichier grib GEO

Contenu du fichier

GEOgrib_TEST_arpA_tovs_tb_207_003_20121207_0000

→ Index

pas d'index mask (surfaces)

→ ----- fichier -----

latitudeOfFirstGridPointInDegrees :	89.250000	89.250000
longitudeOfFirstGridPointInDegrees :	0.75000000	0.75000000
latitudeOfLastGridPointInDegrees :	-89.250000	-89.250000
longitudeOfLastGridPointInDegrees :	359.25000	359.25000
iDirectionIncrementInDegrees :	1.5000000	1.5000000
jDirectionIncrementInDegrees :	1.5000000	1.5000000
numberOfPointsAlongAParallel :	240	240
numberOfPointsAlongAMeridian :	120	120
numberOfDataPoints :	28800	28800

Fichier "stat.def" FOV

BEGIN STATDEF

comment= 'AMSUA Tb'

statkind= 8

fovgrib= y → *fichiers grib FOV**

areaNSEW= GLOBE

grid= REGULAR 1.5 30. 2.5

types= 54 55

params= 12062

items= 8 9 10 18

instrument= 20703

flagfilter= 2 40

→ Index

sizebin2= 3.

--- *scanPosition* = { 3, 6, 9, 12, 15, 18, 21, 24, 27, 30 }

nbbin2= 10

nb valeurs code 198

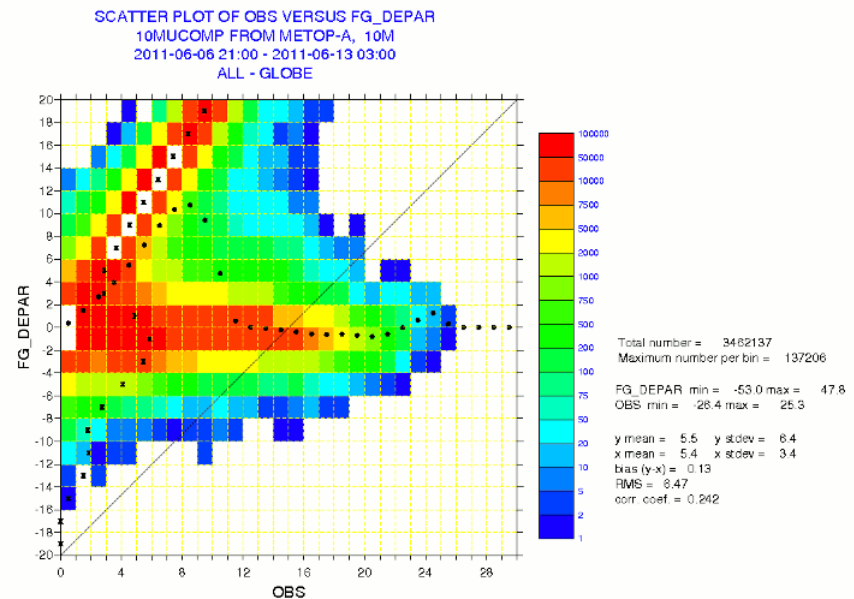
coorditem2= 38

END STATDEF

→ **FOVgrib_TEST_arpA_tovs_tb_207_003_20121207_0000**

Fichier "stat.def" scatter

```
BEGIN STATDEF
comment= 'AMSUA Tb'
statkind= 8
areaNSEW= GLOBE
grid= REGULAR 1.5 30. 2.5
types= 54 55
params= 12062
items= 8 9 10 18
instrument= 20703
flagfilter= 2 40
scatwrite= y
scatitems= 9 8 10 8
scatareas= GLOBE
END STATDEF
BEGIN SCATITEM 8
#bin    min    max    incr
9999    0.0   300.0  10.0
END SCATITEM
BEGIN SCATITEM 9 10
#bin    min    max    incr
9999   -20.0   20.0   2.0
END SCATITEM
```



Fichier ascii scatter

Contenu du fichier

scat_TEST_arpa_tovs_tb_207_003_20121207_0000

#obstat scatter

HEADER= 20121207 0000 20121207 0000 207 003 002 015 002 3 6

title= tb from noaa-16 amsu-a

press= no

channels= 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

 8 8 ← *couples de stats*

 9 10

 2 40 ← *flags*

GLOBE N.Hemis S.Hemis

Datum observed value

Background departure (o-b)

Datum observed value

Analysis departure (o-a)

BEGIN SCATITEM ...

GLOBAL STATS ...

END SCATITEM

...

** 180*

BEGIN SCATITEM ...

GLOBAL STATS ...

END SCATITEM

...

Fichier ascii scatter

Contenu du fichier

scat_TEST_arpa_tovs_tb_207_003_20121207_0000

```
-----  
scatwrite= y  
scatitems= 9 8 10 8  
scatareas= GLOBE N.Hemis S.Hemis  
END STATDEF  
BEGIN SCATITEM 8  
#bin   min    max    incr  
9999   0.0   300.0   10.0  
END SCATITEM  
BEGIN SCATITEM 9 10  
#bin   min    max    incr  
9999  -20.0   20.0    2.0  
END SCATITEM  
-----
```

```
#obstat scatter  
HEADER= 20121207 0000 ...  
title=  tb from noaa-16 amsu-a  
press= no  
channels=      2    14  
           8      8  
           9     10  
           2     40  
GLOBE   N.Hemis  S.Hemis  
Datum observed value  
Background departure (o-b)  
Datum observed value  
Analysis departure (o-a)  
  
BEGIN SCATITEM
```

Fichier ascii scatter

Contenu du fichier

scat_TEST_arpA_tovs_tb_207_003_20121207_0000

BEGIN SCATITEM 001 001 002 008 009 0.00000000E+00 -0.20000000E+02
0.10000000E+02 0.20000000E+01 030 020

n° de area, n° de niveau, flag, itemx, itemy, vminx, vminy, intx, inty, nbintx, nbinty

GLOBAL STATS 0.30120999E+03 0.14024001E+03 0.90529266E+02 ...
valeurs utilisées pour écriture sur plot

Tableau des décomptes : nbintx lignes de nbinty valeurs

...
0 0 0 0 3 0 5 13 14 113 505 574 243 53 10 1 0 0 0 0
9 9 12 10 10 6 17 29 88 337 1168 1631 1199 647 216 111 41 24 10 2
105 98 48 40 18 3 14 24 118 393 1154 2285 1920 1120 534 264 146 103 54 55
120 172 181 164 180 142 71 66 152 325 889 1415 1384 904 519 296 160 84 42 31
...

END SCATITEM

Archivage

"EXE_compact-file.ksh \$DIR_archiv"
(/sxobs1/home/puech/OBSTAT/PROC_osbstat)

→ archivage sous \$DIR_archiv / \$cexpver / \$cstream

→ compactage en yyyyymm (tar + gzip)

✓ exemple monitoring de Vincent
/sxobs1/data1/puech/ARCHIV.obstat/**OPER/arpA**

✓ run olive sur sxobs1
/data1/swapp/sto/mrpa/*\$user*/diagnostic/obstat/
***\$num_diag*/OPER/arp**

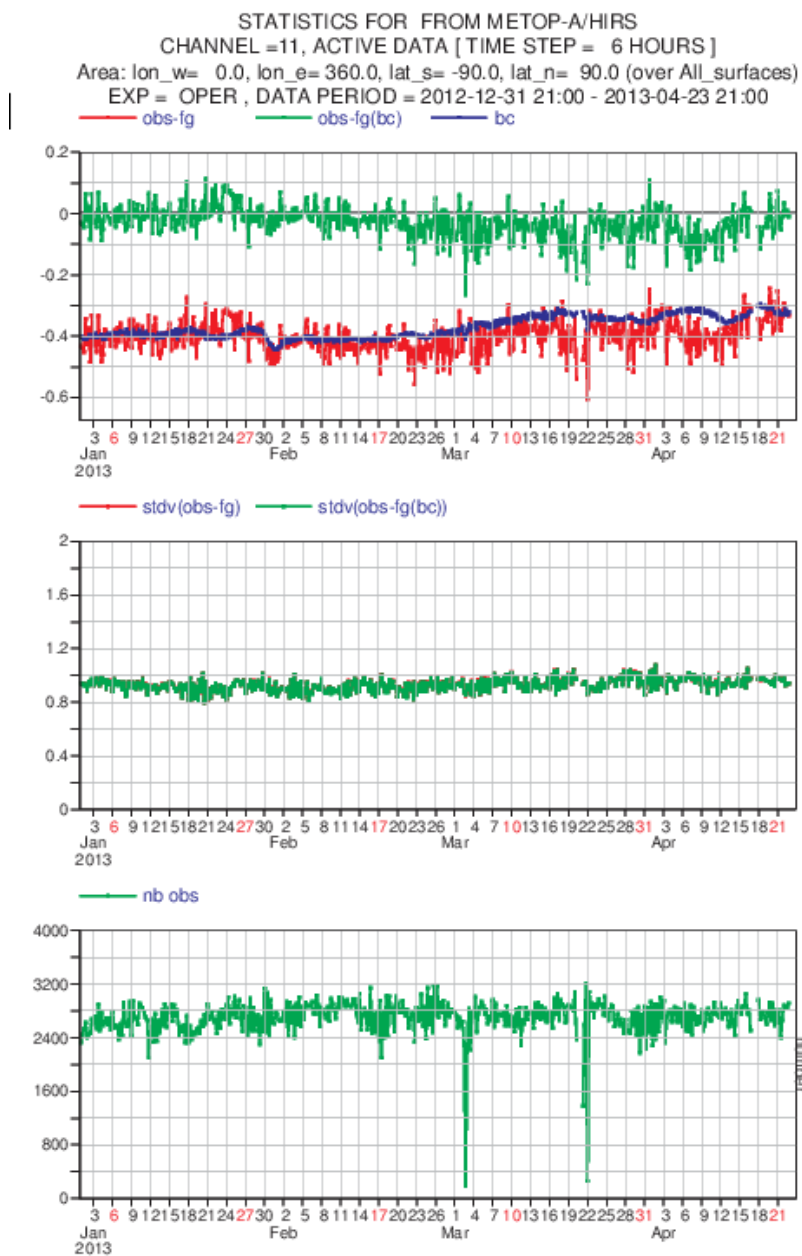
OPER ← cexpver (namelist)

arpA ← cstream (namelist)

Tracés le principe

1. Récupération des données : **EXE_recup-file.ksh**
*EXE_recup-file.ksh -r /data1/puech/ARCHIV.obstat
-t HOV -d 20130101_0000-20130424_1800 -s 6
-f OPER_arpA_tovs_tb_004_000*
→ fichier HOV_OPER_arpA_tovs_tb.tar
2. Création des namelists de tracés :
EXE_plot_kind8_nam.ksh
→ contrôle des données
→ fichiers obstat_xxxx_plot.inp xxxx=type de tracé
*EXE_plot_kind8_nam.ksh 2013010100 2013043100
HOV_OPER_arpA_tovs_tb.tar*
→ obstat_hist_plot.inp, obstat_hov_plot-hov_lat.inp,
obstat_hov_plot-lev_lat.inp, obstat_hov_plot-hov_lon.inp,
obstat_hov_plot-lev_time.inp, obstat_prof_plot.inp,
obstat_overview_plot.inp
3. Tracé : obstat_\$pltype_plot.x < obstat_\$pltype_plot.inp

tracé monitoring





Diagnostic : Obstat

- Calcul, merge, plot kind=1,2,3,4,5
- Calcul kind=8
 - fichiers grib
 - fichiers ascii "scatter files"

Select date and time

Begin at date

End date

Begin at hour

End at hour

Step in hours

Select an experiment

Experiment

☐

Oper

☐

Double

☒

Experiment

Experiment ID

67GK

Experiment cut-off

☐

Assimilation

☒

Production

Experiment class

obstat

Experiment model

arome

Experiment area

france

Experiment cycle

38

Select an experiment

Experiment

☒

Oper

☐

Double

☐

Experiment

Experiment ID

Experiment cut-off

☐

Assimilation

☐

Production

☒

court

Experiment model

☐

arpege

☒

arome

☐

aladin

Experiment area

Select an experiment	
Experiment	<input checked="" type="radio"/> Oper <input type="radio"/> Double <input type="radio"/> Experiment
Experiment ID	<input type="text"/>
Experiment cut-off	<input type="radio"/> Assimilation <input type="radio"/> Production <input checked="" type="radio"/> court
Experiment model	<input type="radio"/> arpege <input checked="" type="radio"/> arome <input type="radio"/> aladin
Experiment area	<input type="text"/>

"arpege" | "arp_court")

 window_length_4d=6

 window_offset_4d=3

 period_4d=6 ;;

"arome" | "aladin" | "ald_court")

 window_length_4d=3

 window_offset_4d=1.5

 period_4d=3 ;;

Select observations inputs (nb : select stage=complete + partionning=full to retrieve odb_cpl.tar)	
ODB type	CCMA
ODB production class	4dupd2
ODB stage	traj (ccma)
ODB partionning	altitude
ODB types list	conv

Select observations inputs	
ODB stage	screening
Data db	active
ODB types list	

ODB stage ← *ODB_production class* et *ODB stage*
 datadb ← ODB type

Select observations inputs	
ODB stage	screening
Data db	active
ODB types list	

ODB stage : class_stage class/stage = lecture des données olive

screening	→	screening_screen	→	all data
4dupd1 traj	→	4dupd1_traj		
4dupd1 min	→	4dupd1_min		
4dupd2 traj	→	4dupd2_traj		
4dupd2 min	→	4dupd2_min		
4dupd3 traj	→	4dupd3_traj		
4dupd3 min	→	4dupd3_min		
minim	→	minim_min	→	active data
matchup	→	matchup_matchup		
canari	→	canari_canari		

Select action to perform	
Calculate obs - model	On * <input type="checkbox"/>
Use pre-calculated obs-model	On <input type="checkbox"/>
Include pre-calc list	<input type="text"/> *
Merge all files in one	On * <input type="checkbox"/>
Plotting layout	A4 <input type="checkbox"/>

Statistics definition	
Statdef selection	Default <input type="checkbox"/> }
Statdef file	<input type="text"/> }
Statdef area	default * <input type="checkbox"/>
Area coordinates	<input type="text"/> *
general_file	<input type="text"/> }
odbcodes_file	<input type="text"/> }

* Plus utilisés

Statistics definition	
Use pre-calculated obs-model (kind != 8)	Off ▾
Statdef file	/home/puech/obstat_test/DIVERS/stat.def.conv
Config directory	
Namelist directory	
Lodbstat	false ▾

Config directory : general.cfg , odbcodes.cfg, airs_channels, iasi_channels, cris_channels

Namelist directory : namelist.calc, namelist.merge, namelist.plot

lodbstat

195 **195 dopw** **doppler wind (m/s, >0 toward radar)**

21014 195 dopw doppler wind (m/s, >0 toward radar)

Build parameters	
Verbosity level	<div>std</div> <div>→</div>
Rebuild the obstat libraries	<div>Off</div> <div>*</div>
Rebuild the obstat binary	<div>Off</div> <div>*</div>
Plot binary	<input type="text"/>
Calc binary	<input type="text"/>
SQL request	<input type="text"/>

Build parameters	
Calc binary	<input type="text"/>
Plot binary	<input type="text"/>
SQL request	<input type="text"/>
Lib directory	<input type="text"/>
Api library	<input type="text"/>
Magics library	<input type="text"/>

* Plus utilisés

SQL request ctovsornot (namelist)

→ odbread.F90

odbsql.sql : FROM hdr, modsurf, body, update[min(2,\$nmxupd)], errstat

obstat_**gpsro**.sql : radcurv@gnssro (cycle 38)

obstat_**radwd**.sql : elevation, azimuth @radar_body

obstat_**satob**.sql : qi_fc, qi_nofc @satob (cycle 38) (← qi-1, qi_3)

obstat_**scatt**.sql : cellno@scatt

obstat_**tovs**.sql : scanpos@radiance

obstat_**conv**.sql : sonde_type@conv (cycle 38)

obstat_**mwimg**.sql : report_tbcloud@allsky (cycle 37)

obstat_**resat**.sql : solar_elevation, quality_retrieval, product_type @resat

obstat_**smos**.sql : incidence_angle, polarisation @smos report_tbflag@smos =
8

obstat_**smos_land**.sql : " report_tbflag@smos = 1

obstat_**fcdep**.sql : fc_depar@fcdiagnostic_body[x] x=1, 2

obstat_**fcdep_gpsro**.sql : fc_depar@fcdiagnostic_body[x] x=1, 2 ,
satellite_instrument, radcurv@gnssro , retrtype - sensor

obstat_**geos**.sql : ??

Advanced parameters		
Check for duplicates	Off ▼	* <i>namelist</i> lasciidump
Plot STDEV instead of RMS	Off ▼	
Use standard rmsplot axes	On ▼	
Circumvent an old MAGICS symbol plot bug	On ▼	*
Plot empty data sets	Off ▼	
Minimum number of observations for rmsplot	5	

Advanced parameters		
Verbosity level	0 ▼	
Plot STDEV instead of RMS	Off ▼	
Use standard rmsplot axes	On ▼	
Plot empty data sets	On ▼	
Minimum number of observations for rmsplot	5	

* Plus utilisés



Diagnostic : Obstat_plot

- les tracés `kind=8`
- les tracés à partir "statout.txt"
sans merge

select_date_and_time	
date_begin	<input type="text" value="20130101"/>
date_end	<input type="text" value="20130131"/>
hour_begin	<input type="text" value="00"/>
hour_end	<input type="text" value="00"/>
hstep	<input type="text" value="06"/>

Titres des graphiques

- Noms des fichiers graphiques (kind/=8)
- Recherche des données (kind=8)

Fichier "*statout.txt*"

Select an experiment (exp + ref)	
Experiment location (directory/diagnostic number [kind=8], filename)	<input type="text" value="/home/puech/TMP/RUN/OBSMERGE_TEST.txt"/>
Experiment ID	<input type="text"/>
Experiment model	<input type="radio"/> arp <input checked="" type="radio"/> aro <input type="radio"/> ala
Experiment cut-off	<input type="radio"/> A <input checked="" type="radio"/> P <input type="radio"/> C

Tracé : file1[-file2]_yyyymmddhh1-yyyymmddhh2.ps
sous /data1/swapp/sto/marp/marp999/diagnostic/obstat_plot/xxxxxx

archive

"monitor"

Select an experiment	
Experiment location (directory/diagnostic number [kind=8], filename)	/data1/puech/ARCHIV.obstat
Experiment ID	OPER
Experiment model	<input checked="" type="radio"/> arp <input type="radio"/> aro <input type="radio"/> ala
Experiment cut-off	<input checked="" type="radio"/> A <input type="radio"/> P <input type="radio"/> C

répertoire : /data1/puech/ARCHIV.obstat/OPER/arpA

archive

Select an experiment (exp + ref)	
Experiment location (directory/diagnostic number [kind=8], filename)	102707

répertoire :

/data1/swapp/sto/marp/marp999/diagnostic/obstat/102707/OPER/arpA

Kind=8

select_file	
file_type	HOV
obs_type	tovs
param	tb
satnum	4,206
sensor	3
datastream	<input checked="" type="radio"/> null <input type="radio"/> 0 <input type="radio"/> 1

Fichier : HOV_OPER_arpA_tovs_tb_004_003_yyyymm.tar.gz
HOV_OPER_arpA_tovs_tb_206_003_yyyymm.tar.gz

$\{\text{file_type}\}_{\{\text{xpid}\}}_{\{\text{mod}\}}\{\text{cutoff}\}_{\{\text{obs_type}\}}_{\{\text{param}\}}_{\{\text{satnum}\}}_{\{\text{sensor}\}}[_{\{\text{data_stream}\}}]_{\text{yyyymmdd}}.\text{tar.gz}$

satnum, sensor : 999 ou valeur

data_stream = 0 ou 1

select_plot	
plot_type	<input checked="" type="checkbox"/> hist <input type="checkbox"/> hov <input type="checkbox"/> geo <input type="checkbox"/> overview <input type="checkbox"/> scat
dir_namplot	<input type="text"/>

Namelists :

obstat_hist_plot.inp

obstat_hov_plot-xxx_yyy.inp

xxx_yyy = hov_lat, hov_lon, lev_lat, lev_time

obstat_geo_plot-xxx.inp

obstat_geo_plot-xxx_stdv.inp xxx = andep, fgdep, obs ...

obstat_overview_plot.inp

obstat_scot_plot.inp

→ **Fichiers** : $\{\text{xpid}\}_{\{\text{mod}\}}\{\text{cutoff}\}_{\{\text{obs_type}\}}_{\{\text{param}\}}_{\{\text{plot_type}\}}[] .ps$

HOV + $-\{\text{xxx}\}_{\{\text{yyy}\}}$

GEO + $-\{\text{xxx}\}, \{\text{xxx}\}_{\text{stdv}}$

sous /data1/swapp/sto/mrpa/mrpa660/diagnostic/obstat_plot/xxxxxx

Build parameters	
Binary directory	<input type="text"/>
Library directory	<input type="text"/>
Api library	<input type="text"/>
Magics library	<input type="text"/>

Exécutables : `obstat_plot.x`
`obstat_geo_plot.x`, `obstat_hist_plot.x`, `obstat_hov_plot.x`
`obstat_overview_hist_plot.x`, `obstat_scatter_plot.x`

Library directory

→ `LD_LIBRARY_PATH=$OBSTAT_PLOT_DIR_LIB:$LD_LIBRARY_PATH`



Runs sur sxobs1 et sxproc1

Procédures : /home/puech/OBSTAT/PROC_obstat

Exécutables : /home/puech/OBSTAT/EXEC/CYxx

Variables d'environnement :

OBSTAT_dirwork

OBSTAT_direxec (/home/puech/OBSTAT/EXEC/CY38)

OBSTAT_dirldlib (/home/puech/UTIL/LIB)

OBSTAT_cycle (38)

OBSTAT_dircfg (/home/puech/OBSTAT/DATA_cfg)

OBSTAT_dirbase

OBSTAT_api (\$OBSTAT_dirldlib/LIB_grib_api/grib_api-1.9.16)

OBSTAT_magics (\$OBSTAT_dirldlib/LIB_magics/Magics-2.14.11)

OBSTAT_modele (arpege)

Runs sur sxobs1 et sxproc1

Plot statout.txt :

```
EXE_obstat.ksh -o 2
```

```
-P OBSMERGE_OPER_assim.txt
```

```
-O OBSMERGE_67CJ_production.txt
```

- ✓ fichiers sous \$OBSTAT_dirwork
- ✓ utilisation du dernier binaire plot validé
- ✓ pas de merge

EXE_obstat.ksh → Usage

ENV_obstat.ksh → Etat de l'environnement

Documentation

- http://lxgmap14/DOC_memos/memos.php



Mémos

GMAP/OBS D. Puech

"Documentations"

 [odb](#)

 [obstat](#)

Avertissement

Les "Documentations" ne sont que des recueils de notes personnelles.
Elles ne sont donc pas exemptes d'erreurs, d'omissions ...

Les documentations de références se trouvent sur le site du CEP

Informations

[mandalay / obstat](#)



Types de calculs

[avg/rms](#)

[histogramme](#)

[status](#)

[géopoints](#)

[fichiers grib et scat](#)

Paramètres (kind/=8 pour plot)

[namelist](#)

[fichier de définitions](#)

Tracés (kind=8)

[hist](#)

[hov](#)

[scatter](#)

[overview](#)

[geo](#)

Divers

[Exécution](#)

[Erreurs](#)

[Curiosités](#)

[Les données](#)

Exemples de sorties Obstat



[type 1](#) (avg/rms) :

pression

[calcul](#)

[tracé](#)

channels

[calcul](#)

[tracé](#)

frequency

[calcul](#)

[tracé](#)

Kilometre

[calcul](#)

[tracé](#)

[type 2](#) (histogramme) :

[calcul](#)

[tracé](#)

[type 3](#) (status) :

[calcul](#)

[tracé](#)

[type 4](#) (géopoints) :

[calcul](#)

type 5 (profils temps) :

[calcul](#)

[tracé](#)

[type 8](#) (fichiers grib) - tracés :

[hist](#)

[geo](#)

hov

[hov-lat](#)

[hov-lon](#)

[lev-lat](#)

[lev-time](#)

overview

[time](#)

[scan](#)

(fichiers scat) :

[calcul](#)

[tracé](#)



Listing

BEGIN TPI STATISTICS

Stats for TPI class : synop land / geopotential height (m) / .
codes=(11 1 99999)

Stats for TPI class : Radiance data / brightness temperature (K) / METOP-A AMSU-A
codes=(210 119 403)

Stats for TPI class : Radiance data / brightness temperature (K) / ???
codes=(210 119 22303)

→ (type param instrument) disponibles dans la base

Listing

iniitemloc:Setting up pointers of obs feedback items

Vreal	1	varno@body	2	1	Datum parameter code	
Vreal	2	lat@hdr	4	2	Report latitude	
Vreal	3	lon@hdr	5	3	Report longitude	
Vreal	4	lsm@modsurf	84	4	Land Sea Mask	
Vreal	5	vertco_reference_1@body	6	5	Datum vertical coordinate	
Vreal	6	obsvalue@body	8	6	Datum observed value	2
Vreal	7	fg_depar@body	9	7	Background departure (o-b)	4
Vreal	8	an_depar@body	10	8	Analysis departure (o-a)	6
Vreal	9	obs_error@errstat	11	9	Obs error	8
Vreal	10	fg_error@errstat	12	10	Background error	10
Vreal	11	final@update_1	13	11	Lo-res ana departure update 1	12
Vreal	12	hires@update_2	14	12	Hi-res bg departure update 2	14
Vreal	13	final@update_2	15	13	Lo-res ana departure update 2	16
Vreal	14	qc_pge@body	16	14	Probability of gross error	
Vreal	15	qc_l@body	17	15	Range of possible values	
Vreal	16	biascorr@body	18	16	Bias correction of obs	18
Vreal	17	statid@hdr	20	17	Integer station ID	
Vreal	18	biasctrl@body	21	18	Variational bias correction of	20
Vreal	19	vertco_reference_2@body	83	19	Datum 2nd vertical coordinate	
Vint	20	codetype@hdr	1	20	Report type	
Vint	21	obstype@hdr	71	21	Obs type	
Vint	22	subtype@hdr	72	22	Obs subtype	
Vint	23	sensor@hdr	3	23	Report instrument/sensor type	
Vint	24	time@hdr	7	24	Report time (hours)	
Vint	25	date@hdr	19	25	Date yyyymmdd	
Vint	26	datum_status@body	22	26	Datum status (bits 27-30)	
Vint	27	report_status@hdr	23	27	report status (bits 27-30)	
Vint	28	report_event1@hdr	24	28	report/blk events (17+15bits)	
Vint	29	report_rdbflag@hdr	25	29	report-type specific events	
Vint	30	datum_anflag@body	26	30	datum flags (4+4+4+4bits 16-31)	
Vint	31	datum_event1@body	27	31	datum events (bits 4-30)	

Listing

Iverb > 0

```
----- custom stat def nb 1 -----
comment= 'TEMP-Uwind'
  statkind= 1  (rms profile)
areaNSEW= N.Hemis
types=    101    102    106
  (temp land)
  (temp ship)
  (mobile temp)
params= 11003
  (zonal component of wind (m/s))
items=     9     10
  (Background departure (o-b))
  (Analysis departure (o-a))
instrument= 999
  (any instrument)
flagfilter=5 (used data only)
odswrite=n (do not create ODS input file)
  data array shape:      16          1          1          2          4
  pop array shape:      16          1          1          2
```