BUFR, NETCDF & HDF5
DATA PREPROCESSING
FOR ARPEGE/ALADIN/AROME.

NAMELIST FILE (OBSCONVERT)

VERSION ANGLAISE / ENGLISH VERSION

V. 1.0.0

CONTENTS

ANNEXES

1 First of all

1.1 Used writing rules

- File names, jobs and programs are written in **bold font**.
- Examples are written using `Courier New` Font.
- In examples, optional entries are inserted within square brackets.
- Likewise, in examples, items written using the *`Courier New italic`* font must be replaced by their values.

2 Introduction

The purpose of this guide is to list the meaning of the entries which are in the **NAMELIST** file of **ObsConvert** (still under development) from CY48.

3 History

Version 1.0.0 (16/03/2022) :
– first English release.

4 Namelists in the file

The file is composed by the following 8 namelists :

- NADIRS : is used to initialize “general interest” variables and some additional variables required to read the other namelists. It is the first namelist read in **ObsConvert**.
- BUFR : initialize specific variables related to the BUFR data preprocessing.
- NETCDF : initialize specific variables related to the NETCDF data preprocessing..
- HDF5 : initialize specific variables related to the HDF5 data preprocessing.
- NAMDYNCORE : ??????
- NAMSATFREQ : only used by GEOWIND data.
- NAMSCEN : ??????
- VALIDATION : optional namelist used in cycle validations. It allows to reduce number of each category of observations.

5 Items in namelists

5.1 NADIRS

Main key	Second key	Component	Kind	Meaning/Remark
INbTypeBufr			Integer	Number of BUFR templates to read in the **param.cfg** file. Default value : 0
InbTypeNetcdf			Integer	Number of NETCDF templates to read in the **param.cfg** file. Default value : 0
InbTypeHdf5			Integer	Number of HDF5 templates to read in the **param.cfg** file. Default value : 0
MinSeviriSatid			Integer	Lowest SID expected in the SEVIRI data (NETCDF format). It is used as lower bound when allocating NSEVIRI type. Default value : 0
MaxSeviriSatid			Integer	Highest SID expected in the SEVIRI data (NETCDF format). It is used as upper bound when allocating NSEVIRI type. Default value : 0
MinMtvzaSatid			Integer	Lowest SID expected in the MTVZA data (HDF5 format). It is used as lower bound when allocating HMTVZA type. Default value : 0
MaxMtvzaSatid			Integer	Highest SID expected in the MTVZA data (HDF5 format). It is used as upper bound when allocating HMTVZA type. Default value : 0
MinAirsSatid			Integer	Lowest SID expected in the AIRS data (BUFR format). It is used as lower bound when allocating TS_AIRS type. Default value : 0
MaxAirsSatid			Integer	Highest SID expected in the AIRS data (BUFR format). It is used as upper bound when allocating TS_AIRS type. Default value : 0
MinAmsrSatid			Integer	Lowest SID expected in the AMSR2 data (BUFR format). It is used as lower bound when allocating TS_AMSR2 type. Default value : 0
MaxAmsrSatid			Integer	Highest SID expected in the AMSR2 data (BUFR format). It is used as upper bound when allocating TS_AMSR2 type. Default value : 0
MinAmsuaSatid			Integer	Lowest SID expected in the AMSUA data (BUFR format). It is used as lower bound when allocating TS_AMSUA type. Default value : 0
MaxAmsuaSatid			Integer	Highest SID expected in the AMSUA data (BUFR format). It is used as upper bound when allocating TS_AMSUA type. Default value : 0
MinAmsubSatid			Integer	Lowest SID expected in the AMSUB/MHS data (BUFR format). It is used as lower bound when allocating TS_AMSUB type. Default value : 0
MaxAmsubSatid			Integer	Highest SID expected in the AMSUB/MHS data (BUFR format). It is used as upper bound when allocating TS_AMSUB type. Default value : 0
MinAscatSatid			Integer	Lowest SID expected in the ASCAT data (BUFR format). It is used as lower bound when allocating TS_ASCAT type. Default value : 0
MaxAscatSatid			Integer	Highest SID expected in the ASCAT data (BUFR format). It is used as upper bound when allocating TS_ASCAT type. Default value : 0

Main key	Second key	Component	Kind	Meaning/Remark
MinAtmsSatid			Integer	Lowest SID expected in the ATMS data (BUFR format). It is used as lower bound when allocating TS_ATMS type. Default value : 0
MaxAtmsSatid			Integer	Highest SID expected in the ATMS data (BUFR format). It is used as upper bound when allocating TS_ATMS type. Default value : 0
MinCrisSatid			Integer	Lowest SID expected in the CRIS data (BUFR format). It is used as lower bound when allocating TS_CRIS type. Default value : 0
MaxCrisSatid			Integer	Highest SID expected in the CRIS data (BUFR format). It is used as upper bound when allocating TS_CRIS type. Default value : 0
MinGeoradSatId			Integer	Lowest SID expected in the GEORAD data (BUFR format). It is used as lower bound when allocating TS_GEORAD type. Default value : 0
MaxGeoradSatId			Integer	Highest SID expected in the GEORAD data (BUFR format). It is used as upper bound when allocating TS_GEORAD type. Default value : 0
MinGeowindSatId			Integer	Lowest SID expected in the GEOWIND data (BUFR format). It is used as lower bound when allocating TS_GEOWIND type. Default value : 0
MaxGeowindSatId			Integer	Highest SID expected in the GEOWIND data (BUFR format). It is used as upper bound when allocating TS_GEOWIND type. Default value : 0
MinGmiSatId			Integer	Lowest SID expected in the GMI data (BUFR format). It is used as lower bound when allocating TS_GMI type. Default value : 0
MaxGmiSatId			Integer	Highest SID expected in the GMI data (BUFR format). It is used as upper bound when allocating TS_GMI type. Default value : 0
MinGpsroSatid			Integer	Lowest SID expected in the GPSRO data (BUFR format). It is used as lower bound when allocating TS_GPSRO type. Default value : 0
MaxGpsroSatid			Integer	Highest SID expected in the GPSRO data (BUFR format). It is used as upper bound when allocating TS_GPSRO type. Default value : 0
MinHirsSatid			Integer	Lowest SID expected in the HIRS data (BUFR format). It is used as lower bound when allocating TS_HIRS type. Default value : 0
MaxHirsSatid			Integer	Highest SID expected in the HIRS data (BUFR format). It is used as upper bound when allocating TS_HIRS type. Default value : 0
MinIasiSatId			Integer	Lowest SID expected in the IASI data (BUFR format). It is used as lower bound when allocating TS_IASI type. Default value : 0
MaxIasiSatId			Integer	Highest SID expected in the IASI data (BUFR format). It is used as upper bound when allocating TS_IASI type. Default value : 0
MinKuscatSatid			Integer	Lowest SID expected in the KUSCAT data (BUFR format). It is used as lower bound when allocating TS_KUSCAT type. Default value : 0
MaxKuscatSatid			Integer	Highest SID expected in the KUSCAT data (BUFR format). It is used as upper bound when allocating TS_KUSCAT type. Default value : 0

Main key	Second key	Component	Kind	Meaning/Remark
MinMwhsxSatid			Integer	Lowest SID expected in the MWHSX data (BUFR format). It is used as lower bound when allocating TS_MWHSX type. Default value : 0
MaxMwhsxSatid			Integer	Highest SID expected in the MWHSX data (BUFR format). It is used as upper bound when allocating TS_MWHSX type. Default value : 0
MinMwts2Satid			Integer	Lowest SID expected in the MWTS2 data (BUFR format). It is used as lower bound when allocating TS_MWTS2 type. Default value : 0
MaxMwts2Satid			Integer	Highest SID expected in the MWTS2 data (BUFR format). It is used as upper bound when allocating TS_MWTS2 type. Default value : 0
MinMwriSatid			Integer	Lowest SID expected in the MWRI data (BUFR format). It is used as lower bound when allocating TS_MWRI type. Default value : 0
MaxMwriSatid			Integer	Highest SID expected in the MWRI data (BUFR format). It is used as upper bound when allocating TS_MWRI type. Default value : 0
MinSaphirSatid			Integer	Lowest SID expected in the SAPHIR data (BUFR format). It is used as lower bound when allocating TS_SAPHIR type. Default value : 0
MaxSaphirSatid			Integer	Highest SID expected in the SAPHIR data (BUFR format). It is used as upper bound when allocating TS_SAPHIR type. Default value : 0
MinSsmisSatId			Integer	Lowest SID expected in the SSMIS data (BUFR format). It is used as lower bound when allocating TS_SSMIS type. Default value : 0
MaxSsmisSatId			Integer	Highest SID expected in the SSMIS data (BUFR format). It is used as upper bound when allocating TS_SSMIS type. Default value : 0
MinScatterSatid			Integer	Lowest SID expected in the SCAT (CFOSAT) data (NETCDF format). It is used as lower bound when allocating NSCATTER type. Default value : 0
MaxScatterSatid			Integer	Highest SID expected in the SCAT (CFOSAT) data (NETCDF format). It is used as upper bound when allocating NSCATTER type. Default value : 0
LATMS_MANDATORY_AVG			Boolean	Activate/Deactivate ATMS data averaging. Default value : .FALSE.
LSSMIS_MANDATORY_AVG			Boolean	Activate/Deactivate SSMIS data averaging. Default value : .FALSE.
LAMSUB_MANDATORY_AVG			Boolean	Activate/Deactivate AMSUB data averaging. Default value : .FALSE.
LSAPHIR_MANDATORY_AVG			Boolean	Activate/Deactivate SAPHIR data averaging. Default value : .FALSE.
LMWTS2_MANDATORY_AVG			Boolean	Activate/Deactivate MWTS2 data averaging. Default value : .FALSE.
LVARBC_APD			Boolean	If .TRUE., force the bias value to 0 for GPSSOL observations. In this case, VarBC will be used. Default value .FALSE.
FORCE_MTD_POOL_BALANCE			Integer	Allows to choose one of the methods for distributing observations of each timeslot across the pools. Default value : 0 for selecting the automatic distribution method, following the context; 1 for selecting the “simple_balancing” method and 2 for selecting the “packet_balancing” method (have a look in bator_pool_balance_mod.F90 for more explanations).

Main key	Second key	Component	Kind	Meaning/Remark
PACKETSIZE_POOL_BALANCE			Integer	Number of observations contained in an “elementary packet” used in the distribution methods. Default value : 64.
SIGMAO_COEF(:)			Real	One dimensional array containing modification coefficients of sigmaos for each data-type (= ODB obstype). Default value : 0,9.
LPERTOBS			Boolean	Activate/deactivate surface observations disturbance. Default value : .FALSE.
NMEMBER			Integer	Number of the current member of ensemble assimilation.
ECTERO(:,:,:,:)			Real	Specifies observation errors : the first dimension corresponds to the obstype, the second to the codetype index, the third to the observed variable (varno), the fourth and last is a free dimension, standard levels for altitude data, or arbitrary index for a particular satellite for scatterometers.
ECTERR_SCAT_BYCELL(:,:,:,:)			Real	Adjustment factor to apply to the scatterometer wind observation error, depending on the cell index across the trace. The first dimension is the cell index (oversized to JPACELL_XHR), the second is the index of the variable whose error is adjusted (1:U,2:V), the third is the instrument or satellite index in the considered codetype, the fourth is the codetype index (NSCAT*SQ). Default value: 1. (obs error unchanged)
READNAMELOBSTHINNING			Boolean	Allow or not the VALIDATION namelist reading. Default value : .FALSE.

5.2 BUFR

With the default values of the TS_* types components (initialized in bator_init_mod.F90), no observations will be preprocessed by Bator. To pre-process observations using one of these types (for one or several SID), you have to initialize the required components (of the selected TS_* type) using this namelist..

Main key	Second key	Component	Type	Meaning/Remark
GPSSOLMETHOD			string	Select method for GPSSOL data. Default value : 'NULL' (no selection). For each statid, setting this key to 'CENT' will select the nearest observation from the timeslot center, whereas the value 'MEAN' averages all the observations (for each statid) inside a timeslot.
NBTEMPMAXLEVELS			integer	Maximum number of levels to be read in a HR vertical sounding (TEMP, PILOT...). Remaining levels will be ignored. Default value : 8000.
TEMPSONDSPLIT			boolean	When set to .TRUE., allows to split a HR vertical sounding following timeslots. Default value : .FALSE. This key has no effect when variable TempSondOrTraj = .FALSE.
TempSondOrTraj			boolean	When set to .TRUE., allows to keep HR vertical sounding. If it is set to .FALSE., each level of the HR vertical sounding is converted in a single obs (trajectory like aeronautical messages). Default value : .TRUE.
ElimTemp0			boolean	When set to .TRUE., skip TEMP messages that have no information about changes of time or position per level. Default value : .TRUE.
ElimPilot0			boolean	When set to .TRUE., skip PILOT messages that have no information about changes of time or position per level. Default value : .TRUE.
NFREQVERT_TPHR			integer	Used in vertical thinning for high resolution TEMP/PILOT
LAEOLUS			boolean	When set to .TRUE. Activate preprocessing of AEOLUS data. Default value : .FALSE.
LMDEHS			boolean	When set to .TRUE. Activate preprocessing of MODE-S data. Default value : .FALSE.
LPacome			boolean	When set to .TRUE., activate preprocessing of French RADOME (307096) when its local category matches any value in Origine(:) array. Default value (without any RADOME) : .FALSE.
NbRainToKeep			integer	Number of RRs to keep [0.5] in a SYNOP message. default value : 0.
RainSelectOrder(:)			integer	Prioritized list of durations (in seconds) of RRs to be considered in SYNOP messages. Default values : -1
llignore_tpd			boolean	???????
ll_applyqc1			boolean	???????
ll_applyqc2			boolean	???????
ll_applyqc3			boolean	???????

Main key	Second key	Component	Type	Meaning/Remark
NScaWSolMax_DcdAscat			integer	Set max number of ambiguous solutions of ASCAT winds written to ODB. Default : 4
LSCAT_REORDER(:)			boolean	Reorders the ambiguous wind solutions from the SCATT data, first the most likely, then the most opposite in direction to the most likely, then the remaining solutions from most to least likely (.TRUE.). Default : .FALSE.
ASCAT_XYGRID			real	Resolution of the ASCAT grid that we want to process. Default: 25000 (25km).
OSCAT_XGRID			real	Resolution of the KUSCAT (oceansat-x) grid that we want to process. Default: 50000 (25km).
HSCAT_XGRID			real	Resolution of the KUSCAT (hy-xx) grid that we want to process. Default: 50000 (50km).
SSCAT_XGRID			real	Resolution of the KUSCAT (scatsat) grid that we want to process. Default: 50000 (50km).
FSCAT_XGRID			real	Resolution of the KUSCAT (cfosat) grid that we want to process. Default: 50000 (50km).
NSCAT_SELCELL(:,:)			integer	DIMENSION(3,JPEOTO), Frequency of SCATT data wind cells (obstype=9) to be preferred in screening skimming, dim1=(/"trace cross frequency","trace length frequency","offset between each trace cross scan/), dim2=instrument type (index codetype). Ex. NSCAT_SELCELL(1:3,x)=2,2,1: pattern every other cell in each trace direction (across/length), offset one cell between each trace line across. Default value for dim1=(/0,0,0/), all wind cells have the same priority (weight) for skimming screening.
LMKCMARPL			boolean	Builds an ODB database like the ECMWF for SCATT data (creation of additional varnos). Allows you to enter the MKCMARPL part at the screening level without crashing (.TRUE.). Default : .FALSE.
LSCAT_SELWSOL(:)			boolean	DIMENSION(JPEOTO). If .TRUE., optional addition of 2 bodies for the wind solution selected as the correct one among the ambiguous solutions, for the SCATT data (obstype=9), varno values u10m/v10m=41/42 for the bodies. Default : .FALSE.
CrisFsr			boolean	Allow to switch from CRIS-NSR (.FALSE.) to CRIS-FSR data (.TRUE.). default value : .FALSE.
TS_AMSUA(:) %	t_select %	SclStart SclJump TabFov(:) TabFovInterlace(:) FovInterlace NbChannels ChannelsList(:) Lprint Bayrad VarnoList(:) BayradPres(:) BayradExp NLevExp	integer integer integer integer boolean integer integer boolean boolean integer real boolean integer	Array of AMSUA data type. The Indexes match SIDs. First scanline number to consider. Scanline sampling (1/n). Array of selected FOV . Array of selected FOV if interlacing is activated. Activate/deactivate FOV interlacing. Number of channels to retrieve. Array of channel numbers to retrieve. To print the type definition. Create extended base (with T and Q). List of varno to consider (2 for T, 29 for RH, 7 for Q). Pressure levels (pseudo obs.) Create experimental extended base Number of levels used in exp data
	t_satsid %	ModSid LPrint	integer boolean	Target SID if any change is needed. Print.
TS_AMSUB(:) %	t_select %			Array of AMSUB data type. See the TS_AMSUA(:)%t_select% type description.

Main key	Second key	Component	Type	Meaning/Remark
	t_satsens %	ModSensor LPrint	integer boolean	Target sensor number if any change is needed. Print.
TS_AMSR2(:) %	t_select %			Array of AMSR2 data type. See the TS_AMSUA(:)%t_select% type description.
	t_satsens %			See the TS_AMSUB(:)%t_satsens% type description.
TS_AIRS(:) %	t_select %			Array of AIRSBT data type. See the TS_AMSUA(:)%t_select% type description.
TS_ASCAT(:) %	t_satsid %			Array of ASCAT data type. See the TS_AMSUA(:)%t_satsid% type description.
	t_satsens %			See the TS_AMSUB(:)%t_satsens% type description.
TS_ATMS(:) %	t_select %			Array of ATMS data type. See the TS_AMSUA(:)%t_select% type description.
	t_satsens %			See the TS_AMSUB(:)%t_satsens% type description.
TS_CRIS(:) %	t_select %			Array of CRIS data type. See the TS_AMSUA(:)%t_select% type description.
	t_satsens %			See the TS_AMSUB(:)%t_satsens% type description.
TS_GEORAD(:) %	t_select %			Array of GEORAD data type. See the TS_AMSUA(:)%t_select% type description.
	t_satsens %			See the TS_AMSUB(:)%t_satsens% type description.
TS_GEOWIND(:) %	t_select %	Cseries DataStream(:,:) Lcanal(:) IcepCanal(:) QiTemplate(:) LPrint	string integer boolean integer integer boolean	Array of GEOWIND (SATOB) data type. Satellite series (arbitrary keyword but meaning like "MSG") Value of ODB column datastream@sat according to sub-centre (dimension 1) and centre code (dimension 2), WMO identifiers. 0 in the general case, 1 if acquisition by a sub-centre. Select which channel winds to write to ODB, indexes corresponding to WMO nomenclature identifiers (Satellite derived wind computation method, values 1-16) (.TRUE.). Default:.FALSE. Maps the OMM computation method to the ECMWF computation method. Defines the type of template to apply to correctly decode the QIs in the BUFR files, by producing center. Print.
TS_GMI(:) %	t_select %			Array of GMI data type. See the TS_AMSUA(:)%t_select% type description.
	t_satsens %			See the TS_AMSUB(:)%t_satsens% type description.
TS_GPSRO(:) %	t_select %	NbMaxLevels LPrint	Integer boolean	Array of GPSRO data type. Maximum number of levels expected for GPSRO data. Default value : 0. Print.
TS_HIRS(:) %	t_select %			Array of HIRS data type. See the TS_AMSUA(:)%t_select% type description.
TS_IASI(:) %	t_select %			Array of IASI data type. See the TS_AMSUA(:)%t_select% type description.
	t_satsens %			See the TS_AMSUB(:)%t_satsens% type description.
TS_KUSCAT(:) %	t_satsid %			Array of KUSCAT data type. See the TS_AMSUA(:)%t_satsid% type description.
	t_satsens %			See the TS_AMSUB(:)%t_satsens% type description.
TS_MWHSX(:) %	t_select %			Array of MWHSX data type. See the TS_AMSUA(:)%t_select% type description.

Main key	Second key	Component	Type	Meaning/Remark
	t_satsens %			See the TS_AMSUB(:)%t_satsens% type description.
TS_MWRI(:) %	t_select %			Array of MWRI data type. See the TS_AMSUA(:)%t_select% type description.
	t_satsens %			See the TS_AMSUB(:)%t_satsens% type description.
TS_SAPHIR(:) %	t_select %			Array of SAPHIR data type. See the TS_AMSUA(:)%t_select% type description.
	t_satsens %			See the TS_AMSUB(:)%t_satsens% type description.
TS_SSMI(:) %	t_select %			Array of SSMI data type. See the TS_AMSUA(:)%t_select% type description.
	t_satsid %			See the TS_AMSUA(:)%t_satsid% type description.
	t_surf %	SurfList(:) LPrint	Boolean boolean	When set to .TRUE., get the surface type. Default value : .FALSE. Print.
TS_SSMIS(:) %	t_select %			Array of SSMIS data type. See the TS_AMSUA(:)%t_select% type description.
	t_satsid %			See the TS_AMSUA(:)%t_satsid% type description.

5.3 HDF5

Main key	Second key	Component	Type	Meaning/remark
HODIM %				Type containing the required components to pre-process ODIM radar data. For more informations on OPERA file format, see « OPERA Data Information Model for HDF5 » version >2.
		Resolution	real	Requested distance (in meters) between 2 observations on a ray when reading the data file. Default value : RABSI.
		DOWThreshold	real	Reflectivity threshold beyond which the radial velocity is not retained (to avoid assimilating echo radial velocities in clear sky). **This value is only used for internal productions at Météo-France**. Default : RABSI
		Nilimit	Real	Nyquist speed threshold below which radial speeds are not retained. Default: RABSI
		Sample	integer	Final resolution (in meters). Default value : 1000.
		ChoosenTask	string	Name of the quality flag to be considered, stored in 'task' attribute. Default value : ' ?'.
		GrpElevName	string	Label root of "dataset" groups. Default value : ' ?'.
		GrpWhereName	string	Label of the "where" group. Default value : ' ?'.
		GrpWhatName	string	Label of the "what" group. Default value : ' ?'.
		GrpHowName	string	Label of the "how" group. Default value : ' ?'.
		GrpParamName	string	Label root of the "data" groups. Default value : ' ?'.
		GrpFlagName	string	Label root of the "quality" groups. Default value : ' ?'.
		NbWagon	integer	Number of meteorological data per observation (ZWAGON). Default value : 0.
		NbSupp	integer	Number of meta-data per observation (ZENTSUP). Default value : 0.
		NodeNames(:)	string	One dimension array of "nodes" to pre-process. Default value : ' ?'.
		ConventionName	string	Label of the "Conventions" attribute. Default value : ' ?'.
		AllowedConventions(:)	string	One dimension array of allowed "Conventions"versions. Default value : ' ?'.
		ElevName	string	Label of the "elevation" attribute. Default value : ' ?'.
		NraysName	string	Label of the "nrays" attribute. Default value : ' ?'.
		NbinsName	string	Label of the "nbins" attribute. Default value : ' ?'.
		RstartName	string	Label of the "rstart" attribute. Default value : ' ?'.
		RscaleName	string	Label of the "rscale" attribute. Default value : ' ?'.
		ObjectName	string	Label of the "object" attribute. Default value : ' ?'.
		SourceName	string	Label of the "source" attribute. Default value : ' ?'.
		DateName	string	Label of the "date" attribute. Default value : ' ?'.
		TimeName	string	Label of the "time" attribute. Default value : ' ?'.
		StartDateName	string	Label of the "startdate" attribute. Default value : ' ?'.
		StartTimeName	string	Label of the "starttime" attribute. Default value : ' ?'.
		QuantityName	string	Label of the "quantity" attribute. Default value : ' ?'.
		GainName	string	Label of the "gain" attribute. Default value : ' ?'.
		OffsetName	string	Label of the "offset" attribute. Default value : ' ?'.
		NoDataName	string	Label of the "nodata" attribute. Default value : ' ?'.
		NoDetectName	string	Label of the "undetect" attribute. Default value : ' ?'.
		SiteHeightName	string	Label of the "height" attribute. Default value : ' ?'.
		SiteLatName	string	Label of the "lat" attribute (radar antenna). Default value : ' ?'.
		SiteLonName	string	Label of the "lon" attribute (radar antenna). Default value : ' ?'.
		TaskName	string	Label of the "task" attribute. Default value : ' ?'.

Main key	Second key	Component	Type	Meaning/remark
		BeamWidthName	string	Label of the “beamwidth” attribute. Default value : ‘ ?’.
		MinDetectName	string	Label of the “MDS” attribute. Default value : ‘ ?’.
		NyquistVelName	string	Label of the “NI” attribute. Default value : ‘ ?’.
		LPrint	boolean	Print.
HMTVZA(:) %				Array of MTVZA data type. The indexes match SIDs.
		DatasetNameRoot	string	Label root of the datasets. Default value : ‘ ?’.
		NamChannels(:)	string	One dimensional array of label roots for datasets containing Tb data. Each label index must be the same as the index of its channel number used in the channels(:) component. Default value : ‘ ?’.
		Julien	string	Label root of the dataset containing the observation start date. Default value : ‘ ?’.
		Time	string	Label root of the dataset containing the observation start time. Default value : ‘ ?’.
		Lat	string	Label root of the dataset containing the latitudes. Default value : ‘ ?’.
		Lon	string	Label root of the dataset containing the longitudes. Default value : ‘ ?’.
		Surf	string	Label root of the dataset containing the surface quality flags. Default value : ‘ ?’.
		SunAzimuth	string	Label root of the dataset containing the solar azimuth angles. Default value : ‘ ?’.
		SunZenith	string	Label root of the dataset containing the solar zenith angles. Default value : ‘ ?’.
		TbMinAttrib	string	Label of the attribute which gives the lowest suitable Tb value. Default value : ‘ ?’.
		TbMaxAttrib	string	Label of the attribute which gives the highest suitable Tb value. Default value : ‘ ?’.
		Sensor	integer	Sensor ID. Default value : -9
		NbWagon	integer	Number of meteorological data per observation (ZWAGON). Default value : 0.
		NbSupp	integer	Number of meta-data per observation (ZENTSUP). Default value : 0.
		NbChannels	integer	Number of resquested channels. Default value : 0.
		Channels(:)	integer	Array of requested channel numbers. Default value : -9.
		LPrint	boolean	Print.

5.4 NETCDF

Main key	Second key	Component	Type	Meaning/remark
NSEVIRI(:) %				Array of SEVIRI data type. The indexes match SIDs.
		Saut	integer	Observations sampling along FOV and scanline (1/n). Default value : 1.
		NbChannels	integer	Number of requested channels. Default value : 0.
		Channels(:)	integer	Array of requested channel numbers. Default value : -9
		NbSupp	integer	Number of meta-data per observation (ZENTSUP). Default value : 0.
		Sensor	integer	Target sensor number. Default value : -9.
		NamChannels(:)	string	One dimensional array containing the labels of the selected channels (of the netcdf file). Each label index must be the same as the index of its channel number used in the channels(:) component. Default value : ‘’.
		NcmlName	string	Label of “NetCDF multicanal source” global attribute. Default value : ‘’.
		NwcSafName	string	Label of “nwc_saf_algorithm “ global attribute. Default value : ‘’.
		NamLat	string	Label of the “lat” variable. Default value : ‘’.
		NamLon	string	Label of the “lon” variable. Default value : ‘’.
		NamTime	string	Label of the variable which the gives observation time in seconds since 01/01/1970 00h. Default value : ‘’.
		NamSatAzimuth	string	Label of the variable containing the satellite azimuth angles. Default value : ‘’.
		NamSatZenith	string	Label of the variable containing the satellite zenith angles. Default value : ‘’.
		NamSolAzimuth	string	Label of the variable containing the solar azimuth angles. Default value : ‘’.
		NamSolZenith	string	Label of the variable containing the solar zenith angles. Default value : ‘’.
		NamCT	string	Label of the variable containing the clouds types (CT). Default value : ‘’.
		NamCTQ	string	Label of the variable containing the quality flags associated to CT. Default value : ‘’.
		NamCTP	string	Label of the variable containing the cloud top pressures (CTP). Default value : ‘’.
		NamCTPQ	string	Label of the variable containing the quality flags associated to CTP. Default value : ‘’.
		LPrint	boolean	Print.
NSCATER(:) %				Array of SCAT (CFOSAT) data type. The indexes match SIDs.
		SatName	String	Satellite name. Default value : ‘’.
		GenCenter	String	Originating center name. Default value : ‘’.
		LonResol	String	Grid resolution. Default value : ‘’.
		Sensor	integer	Target sensor number. Default value : -9
		LreOrder	boolean	Reorders the ambiguous wind solutions from the SCATT data, first the most likely, then the most opposite in direction to the most likely, then the remaining solutions from most to least likely (.TRUE.). Default : .FALSE.
		LselWSol	boolean	If .TRUE., optional addition of 2 bodies for the wind solution selected as the correct one among the ambiguous solutions, for the SCATT data (obstype=9), varno values u10m/v10m=41/42 for the bodies. Default : .FALSE.
		SelCell(:,:,:)	integer	Frequency of SCATT data wind cells (obstype=9) to be preferred in screening skimming, dim1=(/"trace cross frequency","trace length frequency","offset between each trace cross scan/), dim2=instrument type (index codetype). Ex. SelCell(1:3,x)=2,2,1: pattern every other cell in each trace direction (across/length), offset one cell between each trace line across. Default value for dim1=(/0,0,0/), all wind cells have the same priority (weight) for skimming screening.
		DimForObsName(:)	String	List of variable names containing the dimensions to calculate the number of observations. Default

Main key	Second key	Component	Type	Meaning/remark
				value : '?'
		DimForWagName	String	Label of the variable containing the dimension to calculate the number of data. Default value : '?'.
		NamLat	String	Label of the variable containing latitudes. Default value : ''.
		NamLon	String	Label of the variable containing longitudes. Default value : ''.
		NamTime	String	Label of the variable containing observation dates. Default value : ''.
		NamQuality	String	Name of the variable containing the wind cell quality flag. Default value:''.
		NamAmbig	String	Label of the variable containing latitudes. Default value : ''.
		NamLikehood	String	Label of the variable containing the probability of the ambiguous wind scatt solution being the correct one. Default value : ''.
		NamWindSpeed	String	Label of the variable containing the wind speed. Default value : ''.
		NamWindDirec	String	Label of the variable containing wind direction. Default value : ''
		NamSelWSol	String	Label of the variable containing the index of the ambiguous wind scatt solution selected as being the correct one. Default value:''.

5.5 NAMDYNCORE

Clef principale	Clef secondaire	Composant	Type	Définition/Remarque

5.6 NAMSATFREQ

Clef principale	Clef secondaire	Composant	Type	Définition/Remarque
TS_SERIES(:) %		CLSERIES_MAP ZFREQ_MAP(:) IFREQ_MAP(:) CLABEL(:)	String real integer string	Used by GEOWINDs. Defines the identifier and label of the channels when there are several in the same spectral band (IR, VIS, WV, etc.), depending on the type of satellite (series) and the frequency supplied with the observation. See satobfreq_bynam.F90 for assigned default values. Kind of satellite. List of frequencies as read in the BUFR for a given satellite series. Index to calculate the final identifier, written in the ODB column comp_method@satob (also duplicated in sensor@hdr). Label associated with the final identifier.

5.7 NAMSCEN

Clef principale	Clef secondaire	Composant	Type	Définition/Remarque

5.8 VALIDATION

Main key	Second key	Component	Type	Meaning/remark
OBSTHINNING %				Reduction report of the number of observations used for cycles validation.
		AIRS	integer	For AIRS observations. Default value : 1.
		AMSUA	integer	For AMSUA observations. Default value : 1.
		AMSUB	integer	For AMSUB, SAPHIR, AMSR2 observations. Default value : 1.
		MWRI	integer	For MWRI, MWHSX, and MWTS2 observations. Default value : 1.
		HIRS	integer	For HIRS observations. Default value : 1.
		ASCAT	integer	For ASCAT observations. Default value : 1.
		ERSUWI	integer	For ERSUWI observations. Default value : 1.
		GEOWIND	integer	For GEOWIND observations. Default value : 1.
		SEV	integer	For GEORAD observations. Default value : 1.
		QSCAT	integer	For QSCAT observations. Default value : 1.
		KUSCAT	integer	For KUSCAT and OSCAT observations. Default value : 1.
		GPSRO	integer	For GPSRO observations. Default value : 1.
		SSMI	integer	For SSMI observations. Default value : 1.
		SSMIS	integer	For SSMIS observations. Default value : 1.
		IASI	integer	For IASI observations. Default value : 1.
		CRIS	integer	For CRIS observations. Default value : 1.
		AEOLUS	integer	For AEOLUS observations. Default value : 1.
		ATMS	integer	For ATMS observations. Default value : 1.
		GMI	integer	For GMI observations. Default value : 1.
		SYNOP	integer	For all SURFACE observations. Default value : 1.
		SEA	integer	For BUOY, TESAC, and BATHY observations. Default value : 1.
		AERO	integer	For AMDAR, ACAR, AIREP, and MODE-S observations. Default value : 1.
		GPSSOL	integer	For GPSSOL observations. Default value : 1.
		PROFIL	integer	For PROFILER observations. Default value : 1.
		SOND	integer	For TEMP, DROP and PILOT observations. Default value : 1.
		RADAR	integer	For RADAR observations. Default value : 1.
		SEVIRI	integer	For NETCDF SEVIRI observations. Default value : 1.
		MTVZA	integer	For HDF5 MTVZA observations. Default value : 1.
		ODIM	integer	For HDF5 RADAR observations. Default value : 1.
		CFOSAT	integer	For NETCDF CFOSAT observations. Default value : 1.

ANNEXES

1 Namel_bator file squeleton

```
&NADIRS
  variable1 = valeur1
  …
  variablen = valeurn
/
&BUFR
  variable1 = valeur1
  …
  variablen = valeurn
/
&HDF5
  variable1 = valeur1
  …
  variablen = valeurn
/
&NETCDF
  variable1 = valeur1
  …
  variablen = valeurn
/
&NAMDYNCORE
  variable1 = valeur1
  …
  variablen = valeurn
/
&NAMSATFREQ
  variable1 = valeur1
  …
  variablen = valeurn
/
&NAMSCEN
  variable1 = valeur1
  …
  variablen = valeurn
/
&VALIDATION
  variable1 = valeur1
  …
  variablen = valeurn
/
```

2 NADIRS example (arpege)

```
&NADIRS
   ECTERO(9,3,125,1)=1.39
   ECTERO(9,3,41,1)=1.39
   ECTERR_SCAT_BYCELL( 1,1,1,3)=0.98,0.98,0.98,0.98,0.98,0.98
   ECTERR_SCAT_BYCELL( 7,1,1,3)=0.98,0.99,0.99,0.99,0.99,0.99
   ECTERR_SCAT_BYCELL(13,1,1,3)=1.00,1.00,1.01,1.01,1.02,1.03
   ECTERR_SCAT_BYCELL(19,1,1,3)=1.03,1.04,1.05,1.05,1.04,1.03
   ECTERR_SCAT_BYCELL(25,1,1,3)=1.03,1.02,1.01,1.01,1.00,1.00
   ECTERR_SCAT_BYCELL(31,1,1,3)=0.99,0.99,0.99,0.99,0.99,0.98
   ECTERR_SCAT_BYCELL(37,1,1,3)=0.98,0.98,0.98,0.98,0.98,0.98
   ECTERO(9,3,124,1)=1.54
   ECTERO(9,3,42,1)=1.54
   ECTERR_SCAT_BYCELL( 1,2,1,3)=0.98,0.98,0.98,0.98,0.98,0.98
   ECTERR_SCAT_BYCELL( 7,2,1,3)=0.98,0.98,0.98,0.98,0.99,0.99
   ECTERR_SCAT_BYCELL(13,2,1,3)=1.00,1.01,1.01,1.02,1.03,1.03
   ECTERR_SCAT_BYCELL(19,2,1,3)=1.04,1.04,1.04,1.04,1.04,1.04
   ECTERR_SCAT_BYCELL(25,2,1,3)=1.03,1.03,1.02,1.01,1.01,1.00
   ECTERR_SCAT_BYCELL(31,2,1,3)=0.99,0.99,0.98,0.98,0.98,0.98
   ECTERR_SCAT_BYCELL(37,2,1,3)=0.98,0.98,0.98,0.98,0.98,0.98
   ECTERO(9,6,125,2)=1.20
   ECTERO(9,6,41,2)=1.20
   ECTERR_SCAT_BYCELL( 1,1,2,6)=1.25,1.00,1.00,0.99,0.99,0.98,0.98,0.98,0.98
   ECTERR_SCAT_BYCELL(10,1,2,6)=0.98,0.99,1.00,1.01,1.03,1.04,1.05,1.06,1.07
   ECTERR_SCAT_BYCELL(19,1,2,6)=1.07,1.07,1.06,1.05,1.04,1.03,1.01,1.00,0.99
   ECTERR_SCAT_BYCELL(28,1,2,6)=0.98,0.98,0.98,0.98,0.98,0.98,0.98,0.98,0.98
   ECTERR_SCAT_BYCELL(37,1,2,6)=1.00,1.25
   ECTERO(9,6,124,2)=1.26
   ECTERO(9,6,42,2)=1.26
   ECTERR_SCAT_BYCELL( 1,2,2,6)=1.20,1.02,1.00,1.00,1.00,1.00,1.00,0.99,0.98
   ECTERR_SCAT_BYCELL(10,2,2,6)=0.98,0.98,0.99,1.00,1.01,1.02,1.04,1.05,1.06
   ECTERR_SCAT_BYCELL(19,2,2,6)=1.06,1.06,1.05,1.04,1.03,1.01,1.00,0.98,0.98
   ECTERR_SCAT_BYCELL(28,2,2,6)=0.97,0.97,0.97,0.98,0.98,0.99,0.99,0.99,0.99
   ECTERR_SCAT_BYCELL(37,2,2,6)=1.02,1.20
   ECTERO(9,6,125,4)=1.40
   ECTERO(9,6,41,4)=1.40
   ECTERR_SCAT_BYCELL( 1,1,4,6)=1.00,0.98,0.96,0.95,0.94,0.94,0.94,0.94,0.95
   ECTERR_SCAT_BYCELL(10,1,4,6)=0.96,0.98,1.00,1.03,1.06,1.09,1.12,1.15,1.15
   ECTERR_SCAT_BYCELL(19,1,4,6)=1.13,1.13,1.15,1.15,1.12,1.09,1.06,1.03,1.00
   ECTERR_SCAT_BYCELL(28,1,4,6)=0.98,0.96,0.95,0.94,0.94,0.94,0.94,0.95,0.96
   ECTERR_SCAT_BYCELL(37,1,4,6)=0.98,1.00
   ECTERO(9,6,124,4)=1.40
   ECTERO(9,6,42,4)=1.40
   ECTERR_SCAT_BYCELL( 1,2,4,6)=1.02,0.99,0.98,0.97,0.97,0.98,0.98,0.98,0.98
   ECTERR_SCAT_BYCELL(10,2,4,6)=0.99,1.00,1.01,1.02,1.03,1.04,1.05,1.05,1.05
   ECTERR_SCAT_BYCELL(19,2,4,6)=1.04,1.04,1.05,1.05,1.05,1.04,1.03,1.02,1.01
   ECTERR_SCAT_BYCELL(28,2,4,6)=1.00,0.99,0.98,0.98,0.98,0.98,0.97,0.97,0.98
   ECTERR_SCAT_BYCELL(37,2,4,6)=0.99,1.02
   INbTypeBufr=200,
   InbTypeHdf5=3,
   InbTypeNetcdf=4,
   LATMS_MANDATORY_AVG=.TRUE.,
   LSSMIS_MANDATORY_AVG=.TRUE.,
   LMWTS2_MANDATORY_AVG=.TRUE.,
   LVARBC_APD=.TRUE.,
   MaxAirsSatid  = 784,
   MaxAmsrSatid  = 122,
   MaxAmsuaSatid = 784,
```

```
  MaxAmsubSatid = 223,
  MaxAscatSatid = 5,
  MaxAtmsSatid = 225,
  MaxCrisSatid = 225,
  MaxGeoradSatId  = 259,
  MaxGeowindSatId = 852,
  MaxGmiSatId  = 288,
  MaxGpsroSatid = 825,
  MaxHirsSatid = 223,
  MaxIasiSatId = 5,
  MaxKuscatSatid = 802,
  MaxMtvzaSatid = 320,
  MaxMwhsxSatid = 523,
  MaxMwts2Satid = 523,
  MaxMwriSatid = 523,
  MaxSaphirSatid = 440,
  MaxSeviriSatid = 271,
  MaxSsmisSatId = 286,
  MinAirsSatid  = 784,
  MinAmsrSatid  = 122,
  MinAmsuaSatid = 3,
  MinAmsubSatid = 3,
  MinAscatSatid = 3,
  MinAtmsSatid = 224,
  MinCrisSatid = 224,
  MinGeoradSatId  = 54,
  MinGeowindSatId = 3,
  MinGmiSatId  = 288,
  MinGpsroSatid = 3,
  MinHirsSatid = 3,
  MinIasiSatId = 3,
  MinKuscatSatid = 421,
  MinMtvzaSatid = 320,
  MinMwhsxSatid = 522,
  MinMwts2Satid = 523,
  MinMwriSatid = 522,
  MinSaphirSatid = 440,
  MinSeviriSatid = 56,
  MinSsmisSatId = 249,
  MinScatterSatid = 802,
  MaxScatterSatid = 802,
  SIGMAO_COEF(10)=1.35,
  SIGMAO_COEF(1:6)=0.75,0.75,0.75,0.75,0.75,0.75,
  SIGMAO_COEF(9:9)=1.,
/
```

3 BUFR examples (arpege)

```
&BUFR
  GPSSOLMETHOD   = 'MEAN',
  NBTEMPMAXLEVELS   =   9000,
  TEMPSONDSPLIT  = .TRUE.,
  NFREQVERT_TPHR   =    400,
  TEMPSONDORTRAJ=.TRUE.,
  TEMPSONDSPLIT=.TRUE.,
  LPACOME=.TRUE.,
  NbRainToKeep=2,
  RainSelectOrder(1:3)=-6,-24,-12,
  TS_AMSUB(207)%T_SATSENS%MODSENSOR  =      4,
  TS_AMSUB(207)%T_SELECT%CHANNELSLIST(1:5) = 1,2,3,4,5,
  TS_AMSUB(207)%T_SELECT%FOVINTERLACE  = .TRUE.,
  TS_AMSUB(207)%T_SELECT%SCLJUMP  =      1,
  TS_AMSUB(207)%T_SELECT%TABFOV(1:18)  = 10,14,18,22,26,30,34,38,42,46,50,54,58,62,66,70,74,78,
  TS_AMSUB(207)%T_SELECT%TABFOVINTERLACE(1:18) = 12,16,20,24,28,32,36,40,44,48,52,56,60,64,68,72,76,80,
  TS_SSMI(13)%T_SATSID%MODSID  =    246,
  TS_SSMI(13)%T_SURF%SURFLIST(5)  = .TRUE.,
  TS_SSMI(13)%T_SELECT%CHANNELSLIST(:) =     -1,
  TS_SSMI(13)%T_SELECT%FOVINTERLACE  = .TRUE.,
  TS_SSMI(13)%T_SELECT%SCLJUMP  =      2,
/
```

4 NETCDF example (arpege)

```
&NETCDF
   NSEVIRI(270)%Sensor=44,
  NSEVIRI(270)%NcmlName='ncml_version',
  NSEVIRI(270)%NwcSafName='nwc_saf_algorith_version',
  NSEVIRI(270)%NamLat='lat',
  NSEVIRI(270)%NamLon='lon',
  NSEVIRI(270)%NamTime='time',
  NSEVIRI(270)%NamSatAzimuth='sat_azi_ang',
  NSEVIRI(270)%NamSatZenith='sat_zen_ang',
  NSEVIRI(270)%NamSolAzimuth='sol_azi_ang',
  NSEVIRI(270)%NamSolZenith='sol_zen_ang',
  NSEVIRI(270)%NamCT='CT',
  NSEVIRI(270)%NamCTQ='CT_QUALITY',
  NSEVIRI(270)%NamCTP='CTP',
  NSEVIRI(270)%NamCTPQ='CTP_QUALITY',
  NSEVIRI(270)%SAUT = 1,
  NSEVIRI(270)%NbSupp = 12,
  NSEVIRI(270)%NbChannels = 10,
  NSEVIRI(270)%Channels(1:10) = 1,2,3,4,5,6,7,8,9,10,
  NSEVIRI(270)%NamChannels(1:5)='IR_039','WV_062','WV_069','WV_073','IR_085',
  NSEVIRI(270)%NamChannels(6:10)='IR_096','IR_103','IR_112','IR_123','IR_133',
/
```

5 HDF5 example (mtvza)

```
&HDF5
  HMTVZA(320)%DatasetNameRoot    ='m_m2_',
  HMTVZA(320)%NbWagon            =29,
  HMTVZA(320)%NbSupp             =10,
  HMTVZA(320)%Sensor             =76,
  HMTVZA(320)%NbChannels         =24,
  HMTVZA(320)%Channels(1:24)     = 1,2,3,4,5,6,7,8,9,10,15,16,17,18,19,20,21,22,23,24,25,27,28,29,
  HMTVZA(320)%NamChannels(1:4)   ='m_m2_01_10.6V','m_m2_02_10.6H','m_m2_03_18.7V','m_m2_04_18.7H',
  HMTVZA(320)%NamChannels(5:8)   ='m_m2_05_23.8V','m_m2_06_23.8H','m_m2_26_31.5V','m_m2_27_31.5H',
  HMTVZA(320)%NamChannels(9:12)  ='m_m2_07_36.7V','m_m2_08_36.7H','m_m2_11_52_80V','m_m2_12_53_30V',
  HMTVZA(320)%NamChannels(13:15) ='m_m2_13_53_80V','m_m2_14_54_64V','m_m2_15_55_63V',
  HMTVZA(320)%NamChannels(16:17) ='m_m2_16_57_0.32_0.1H','m_m2_17_57_0.32_0.05H',
  HMTVZA(320)%NamChannels(18:19) ='m_m2_18_57_0.32_0.025H','m_m2_19_57_0.32_0.01H',
  HMTVZA(320)%NamChannels(20:21) ='m_m2_20_57_0.32_0.005H','m_m2_09_91.65V',
  HMTVZA(320)%NamChannels(22:24) ='m_m2_21_183_7.0V','m_m2_23_183_3.0V','m_m2_22_183_1.4V',
  HMTVZA(320)%Julien             ='m_m2_Julian Day',
  HMTVZA(320)%Time               ='m_m2_Time of day',
  HMTVZA(320)%Lat                ='m_m2_Lattitude',
  HMTVZA(320)%Lon                ='m_m2_Longitude',
  HMTVZA(320)%Surf               ='m_m2_Surface',
  HMTVZA(320)%SunAzimuth         ='m_m2_SunAzimuth',
  HMTVZA(320)%SunZenith          ='m_m2_SunZenith',
  HMTVZA(320)%TbMinAttrib        ='valid min',
  HMTVZA(320)%TbMaxAttrib        ='valid max',
/
```

6 HDF5 example (ODIM)

```
&HDF5
  HODIM%ConventionName          ='Conventions',
  HODIM%AllowedConventions(1:4) ='ODIM_H5/V2_0','ODIM_H5/V2_1','ODIM_H5/V2_2','ODIM_H5/V2_3',
  HODIM%Resolution              =1000.0,
  HODIM%Sample                  =5000,
  HODIM%Nilimit                 =30.0,
  HODIM%NbWagon                 =3,
  HODIM%NbSupp                  =0,
  HODIM%TaskName                ='task',
  HODIM%ChoosenTask             ='pl.imgw.quality.qi_total',
  HODIM%GrpElevName             ='dataset',
  HODIM%GrpParamName            ='data',
  HODIM%GrpWhereName            ='where',
  HODIM%GrpWhatName             ='what',
  HODIM%GrpHowName              ='how',
  HODIM%GrpFlagName             ='quality',
  HODIM%ElevName                ='elangle',
  HODIM%NraysName               ='nrays',
  HODIM%NbinsName               ='nbins',
  HODIM%RstartName              ='rstart',
  HODIM%RscaleName              ='rscale',
  HODIM%ObjectName              ='object',
  HODIM%SourceName              ='source',
  HODIM%DateName                ='date',
  HODIM%TimeName                ='time',
  HODIM%SiteHeightName          ='height',
  HODIM%SiteLatName             ='lat',
  HODIM%SiteLonName             ='lon',
  HODIM%StartDateName           ='startdate',
  HODIM%StartTimeName           ='starttime',
  HODIM%QuantityName            ='quantity',
  HODIM%GainName                ='gain',
  HODIM%OffsetName              ='offset',
  HODIM%NoDataName              ='nodata',
  HODIM%NoDetectName            ='undetect',
  HODIM%BeamWidthName           ='beamwidth',
  HODIM%MinDetectName           ='MDS',
  HODIM%NyquistVelName          ='NI',
  HODIM%NodeNames(1:8)          ='bewid','bezav','deemd','deess','defbg','defld','dehnr','demem',
  HODIM%NodeNames(9:16)         ='deneu','denhb','deoft','detur','esbad','esbar','eslid','esmad',
  HODIM%NodeNames(17:24)        ='esmur','espma','essan','essse','esval','eszar','iedub','iesha',
  HODIM%NodeNames(25:32)        ='nldbl','nldhl','ukcle','ukcob','ukcyg','ukdea','ukham','uking',
  HODIM%NodeNames(33:34)        ='ukpre','ukthu',
/
```

7 NAMSATFREQ examples

```
&NAMSATFREQ
  TS_SERIES(2)%ZFREQ_MAP(7)=0.461219D14,
  TS_SERIES(2)%IFREQ_MAP(7)=3,
  TS_SERIES(2)%CLABEL(7)='WV3',
  TS_SERIES(4)%CLSERIES_MAP='HTG',
  TS_SERIES(4)%ZFREQ_MAP(1:3)=0.46968210D15,0.40795300D14,0.43155900D14,
  TS_SERIES(4)%ZFREQ_MAP(4:6)=0.48037800D14,0.28763500D14,0.77043900D14,
  TS_SERIES(4)%ZFREQ_MAP(1:5)=0.46842570D15,0.41067400D14,0.43448100D14,0.48353600D14,0.28826100D14,
  TS_SERIES(4)%IFREQ_MAP(1:5)=1,1,2,3,1,
  TS_SERIES(4)%CLABEL(1:5)='VIS1','WV1','WV2','WV3','IR1',
  TS_SERIES(5)%CLSERIES_MAP='GOES-R',
  TS_SERIES(5)%ZFREQ_MAP(1:3)=0.4684257D+15,0.408437D+14,0.431356D+14,
  TS_SERIES(5)%ZFREQ_MAP(4:6)=0.484317D+14,0.267672D+14,0.768699D+14,
  TS_SERIES(5)%IFREQ_MAP(1:6)=1,1,2,3,1,2,
  TS_SERIES(5)%CLABEL(1:6)='VIS1','WV1','WV2','WV3','IR1','IR2',
/
```