# News

## 2024

## 12-04-2024 CNRM model grid encoding issue

After the latest CNRM model change in October 2020, the CNRM grid is inverted, i.e. j-dimension scans positively (south to north) instead of negatively (north to south) as required for the S2S.

For more details go to the page Issues with data

## 07-03-2024 Leap year 2024 in on-the-fly reforecasts

Four centres CMA, ECCC, ECMWF and RHMC had to figure out how to produce on-the-fly reforecasts for Thursday 29 February 2024.

The solution used is described in Issues with data

Also the S2S dedicated data portal can help to understand those technical details.

## 29-02-2024 ECMWF data delay reduced to 48h

ECMWF has reduced the delay in availability of their contribution to S2S database to 48 hours, rather than the previous three-week delay. WMO plans to encourage all data providers to reduce the delay for their contribution.

https://www.ecmwf.int/en/about/media-centre/news/2024/ecmwf-releases-much-larger-open-dataset

## 02-02-2024 The first fixed reforecast set from CPTEC added to S2S

The first fixed reforecast set from CPTEC was added to S2S archive. More information can be found in CPTEC Model.

## 2023

## 15-12-2023 New model from CPTEC added to S2S

The new model from CPTEC (Brasil) was added to S2S database with the 1<sup>st</sup> realtime outputs starting on 13 Dec 2023 The fixed reforecast set will be added later.

More information can be found in:

- CPTEC Model
- Provided parameters
- Data portal
- S2S history page tracking the data availability

## 10-08-2023 Three ocean parameters removed from KMA model outputs

Three of nine newly introduced ocean parameters in KMA model outputs since the last model change on the 1<sup>st</sup> of July 2023 were problematic and thus discontinued in the archive (since the 9<sup>th</sup> of August resp the 1<sup>th</sup> of November 2023 for the realtime resp reforecast data).

For more details go to the page Issues with data

#### 27-06-2023 ECMWF forecast system change

With IFS Cycle 48r1, the horizontal resolution of the *medium-range ensemble* (ENS) will increase from 18 to 9 km. This will bring the ENS to the same horizontal resolution as the high resolution forecast (HRES). The vertical resolution for both ENS and HRES will remain at 137 model levels and the ENS will continue to have 51 members.

Cycle 48r1 will also bring a major upgrade to the configuration of the *extended-range ensemble* (ENS extended): Rather than being an extension of the medium-range forecasts starting twice a week at day 15 it will be a completely separate system, running daily from 00 UTC out to day 46 with 101 members. Over the entire forecast range the resolution will remain unchanged at 36 km horizontally and 137 model levels.

The main changes to S2S contribution from ECMWF are:

- increased ensemble size to 101 for the real-time forecasts
- the frequency changed to daily for the real-time forecasts since 28/06/2023
- the same horizontal resolution for the atmosphere Tco319L137 during the whole forecast range
- the first on-the-fly reforecasts run with the new cycle on 29/06/2023

More details can be found in ECMWF Model and Implementation of IFS Cycle 48r1

## 01-06-2023 KMA system change

The KMA model has been changed since the 1<sup>th</sup> June resp since the 17<sup>th</sup> August 2023 for the real-time resp reforecast ouputs with the main changes related to S2S:

- eps size of the real-time forecasts increased from 4 to 8
- eps size of the on-the-fly reforecasts increased from 3 to 7
- 9 ocean parameters added as per Provided parameters

More information can be found in KMA Model

## 24-03-2023 New JMA fixed reforecast set

The new fixed reforecast set (model version date 2022-09-30) related to the upgraded JMA model version CPS was added to S2S archive. More information can be found in the JMA Model.

#### 19-02-2023 Major JMA system change

The JMA model has been changed from GEPS to CPS coupled to an ocean model since the 19<sup>th</sup> February 2023 with the main changes related to S2S outputs:

- · General changes:
  - output frequency for 10 metre wind and precipitation changed from 24 to 6-hourly
  - ° increased number of vertical layers for vertical velocity
  - surface thermal radiation downwards parameter newly provided
- Real-time forecasts changes:
  - ensemble size decreased from 25 to 5
  - frequency changed from twice a week (every Tuesday and Wednesday at 12Z) to every day (0Z)
- Reforecasts changes (the new corresponding fixed reforecast set with model version date 30/09/2022 will be added in the near future):
  - ensemble size decreased from 13 to 5
  - ° the start dates changes as per JMA Model#CPS3

More information can be found in:

- JMA Model
  - JMA model detailed description
- Provided parameters
- S2S Models

#### 17-01-2023 RHMC system change

The RHMC model has been upgraded to the new version since the 15<sup>th</sup> September 2022 with the main changes related to S2S outputs:

- resolution increased from 1.1x1.4 L28 to 0.9x0.72 L96
- · eps size of the real-time forecasts increased from 20 to 41
- forecast length decreased from d 0-61 to d 0-46
- eps size of the on-the-fly reforecasts increased from 10 to 11
- reforecast period changed from 1990-2015 to 1991-2015
- added 6-hourly 10u/v parameters
- added 10 hPa pressure level parameters

More information can be found in HMCR Model.

## 2022

## 26-07-2022 Data issue in the real-time forecasts from KMA

There was a problem with the production of the forecast data due to an error in the ocean initial field for the period 29.6.-11.7. 2022. That issue has been resolved now by re-archiving the fixed data. The users are advised to re-download that data if they downloaded it before the 26<sup>th</sup> July 2022.

For more details go to the page Issues with data.

### 27-06-2022 Fixed wrong values of Time-integrated top net thermal radiation in KMA data

After the KMA model upgrade to the version GloSea6 on the 22<sup>nd</sup> February 2022, there was an issue with Time-integrated top net thermal radiation (too excessive values). That issue has been resolved now by re-archiving the affected data. The users are advised to re-download that parameter if they downloaded it in the period between the 22<sup>nd</sup> February and the 27<sup>th</sup> June 2022.

For more details go to the page Issues with data.

## 06-05-2022 New JMA fixed reforecast set

The new fixed reforecast set (model version date 2022-03-31) related to the upgraded JMA model version GEPS2203 was added to S2S archive. Mor e information can be found in the JMA Model.

### 20-04-2022 JMA model system change

The JMA model has been upgraded to the version GEPS2203. It has applied to the real-time forecasts since the 15<sup>th</sup> March 2022. The new set of the fixed reforecasts (period 1991-2020 with the model version date 2022-03-31) should be fully archived during the next two weeks. More information can be found in the pages JMA Model#JGEPS2203 and JMA model description.

#### 22-02-2022 KMA model system change

The new KMA model version (based on GloSea6) has replaced the former one (based on GloSea5). It has **applied** to the real-time forecasts since 22<sup>nd</sup> February 2022 and to the on-the-fly reforecasts one month later since the 25<sup>th</sup> March 2022 (that inconsistency is newly listed in Issues with data#Inconsistencyinthefirstreal-timeandreforecastrunsarchivedafterKMAmodelupgradetoGloSea6-GC3.2.).

All other details can be found in KMA Model.

## 04-02-2022 IAP-CAS reforecasts added to S2S database

The first fixed reforecast set complementary to the recently added new model from IAP-CAS is now available for the period 1999-2018 (Model version date 2019-01-01). One parameter (2 metre dewpoint temperature) is available for the limited period 2006-2018 as per Issues with data. More details can be found in IAP-CAS model description.

2021

#### 02-12-2021 ECCC forecast system change

The ECCC Global ensemble prediction system (GEPS) has been upgraded to the version 7 since 0Z run on 02 Dec 2021 with the main changes:

- The version of the GEM model is upgraded to 5.1 with more advanced physics.
- The number of vertical levels is increased from 81 to 85 for the data assimilation and from 45 to 85 for the forecast.
- A Stochastic Parameter Perturbation (SPP) method is introduced to replace the Physics Tendency Perturbation (PTP).
- 20 years hindcast period changed from 1997-2017 to 2001 to 2020 from 09 Dec 2021

More details can be found in ECCC model description

### 13-10-2021 ECMWF forecast system change

New version of ECMWF IFS model (cycle 47r3) has been introduced at ECMWF since 6Z run on 12-10-2021.

Cycle upgrade 47r3 will bring improvements to the assimilation and observations usage and a significantly improved physical basis for moist processes, necessary to facilitate further development of the Integrated Forecasting System (IFS) and future application at convection-permitting resolutions.

More details can be found in

- Implementation of IFS Cycle 47r3
- https://www.ecmwf.int/en/publications/ifs-documentation
- S2S Models

#### 13-10-2021 IAP-CAS added to S2S database

A new model IAP-CAS (Institute of Atmospheric Physics, Chinese Academy of Sciences) was added to S2S database with real-time forecasts backarchived currently since 2021-05-01. The fixed reforecasts will be added in near future. More details can be found in IAP-CAS model description.

## 01-07-2021 RHMC on-the-fly reforecast change

Since the 1<sup>th</sup> of July 2021 the RHMC (rums) reforecasts period has changed from 1985-2010 to 1990-2015 as per the model change overview in HMC R Model.

#### 23-06-2021 Yearly stats added

Yearly statistics have been added to S2S usage statistics.

## 20-05-2021 New JMA fixed reforecast set

As a final part of JMA model update to the version GEPS2103 from March 2021, the new fixed reforecast set was added to S2S archive. The new model version date it relates to is 2021-03-31. The new reforecast set should be used together with the real-time runs since 2021-03-30. More information can be found in the JMA Model.

## 13-05-2021 S2S documentation improvement

S2S documentation pages have been redesigned and updated to help users better understanding of model configurations and their changes since the project start. The main table in Models has now a feature **Expand/collapse the table** allowing quick overview of each model major changes impacting products for S2S. Also separate pages dedicated to each model have been updated so that users could identify model change to its previous version more easily. Complete overview of all model configurations since S2S project start should hopefully help users also to define their data retrievals for extended period of time and in more efficient way too.

#### 12-05-2021 ECMWF forecast system change

New version of ECMWF IFS model (cycle 47r2) has been introduced at ECMWF since 11-05-2021. In the IFS Cycle 47r2 single-precision for ENS (forecast up to day 46 and hindcast) and HRES (forecast) has been introduced. Moreover, the ENS vertical levels has been increased to 137 to bring it in line with HRES.

The processing of the IFS reforecasts, available for S2S as well, from 13-05-2021 (run in advance) has been suspended so that they would be computed from today by the new model version.

Full details can be found in Implementation of IFS Cycle 47r2

## 30-04-2021 Wrong 2 metre minimum and maximum temperature in Meteo-France data

After the recent Meteo-France model upgrade to the version CNRM-CM6, there is an issue with 2 metre minimum and maximum temperature. Both fields contain the mean 2-meter temperature over the past 6 hours instead of the correct values of 2 metre minimum and maximum temperature. This error affects both the real-time data since the real-time forecasts since the 22<sup>nd</sup> October 2020 and also t he corresponding set of the fixed reforecasts (1993-2017) archived under the model version date 2019-07-01.

As this error cannot be easily fixed in the reforecast data, it was decided not to fix for consistency the real-time forecast fields either.

For more details go to the page Issues with data.

## 12-04-2021 JMA model system change

Change of the model version to GEPS2103 has applied to the real-time forecasts since the 30<sup>th</sup> March 2021. The new JMA real-time ensemble system includes 2 start dates (Tuesdays and Wednesdays at 12Z) instead of the previous 4 runs. The ensemble size is 25 members for both days and the resulting new lagged ensemble for S2S is a single 50-member ensemble starting on Wednesdays at 12Z.

The new set of the fixed reforecasts (1981-2020) will be archived later during 2021. M ore information can be found in the pages JMA Model#JGEPS2103 and JMA model description.

#### 08-02-2021 New JMA fixed reforecast set

As a final part of JMA system change from March 2020, the new fixed reforecast set was added to S2S archive. The reforecast frequency was reduced from 3 to 2 runs per month with increased ensemble size from 5 to 13. The new model version date it relates to is 2020-03-31. The new reforecast set should be used together with the real-time runs since 2020-03-25. More information can be found in the JMA Model.

## 02-02-2021 UKMO model system change

The new GloSea6 forecasts and hindcasts have replaced the former GloSea5 system. It has **applied** to the real-time forecasts since 2<sup>nd</sup> February 2021 and to the on-the-fly reforecasts since the 1<sup>st</sup> February 2021.

All details can be found in the page UKMO Model .

## 2020

## 12-11-2020 Increased frequency of 10m u/v components

Based on a new project requirement, the frequency of 10m u/v components has been increased to 6-hourly from the previously 24-hourly at the moment in two S2S models CNRM and ECMWF. The Mete-France change is related to the model upgrade to the version CNRM-CM6.1 described below on 22-10-2020.

The starting date of this change regarding ECMWF is 12-11-2020 resp. 26-11-2020 for real-time resp. reforecast outputs.

The information about the availability of the increased frequency of 10m u/v components is captured in the page Provided parameters.

#### 27-10-2020 Meteo-France model system change

The Meteo-France model has been upgraded to the version CNRM-CM6.1 It has **applied** to the real-time forecasts since the 22<sup>nd</sup> October 2020. The corresponding new set of the fixed reforecasts (1993-2017) was also archived under the model version date 2019-07-01 in MARS archive. The most important changes include:

- forecast length extended to 47 days (from 32)
- ensemble size decreased to 25 (from 51) for the real-time data and to 10 (from 15) for the reforecasts
- addition of 9 ocean parameters and 5 other surface parameters
- removal of potential vorticity parameter

All details can be found in the page CNRM Model .

## 25-09-2020 BoM contribution suspended

BoM contribution to S2S has been suspended since 25-09-2020 due to technical reasons until further notice.

## 06-08-2020 CMA reforecast type fixed

The previously announced (as per below News on 03-07-2020) wrongly encoded CMA reforecasts were fixed and re-archived correctly as of the "on-the-fly" type for the period 2019-11-11...2020-06-22.

Further details can be found in Issues with data.

#### 06-08-2020 KMA (rksl) system update

Nine additional parameters allowing computing MJO indices were added to the KMA outputs starting since the 1<sup>st</sup> August 2020 for the real-time forecasts and since the 1<sup>st</sup> September for the on-the-fly reforecasts. Additionally, six more re-forecast years (2011-2016) have been added to the KMA on-the-fly reforecast outputs also since the run on the 1<sup>st</sup> of September 2020.

More information can be found in the models' description page .

## 03-07-2020 CMA reforecast type change

Please be informed that there is an ongoing fix of the type of CMA reforecasts for the period 2019-11-11...2020-06-22. Until 2020-06-25 CMA reforecasts were wrongly encoded as of the fixed type. The correct reforecast type is "on-the-fly". This is only a technical fix of GRIB 2 encoding but still users can be affected when reading the data as the encoding changes after 2020-06-25 at the moment. To complete fixing the whole affected period might take couple of weeks.

Further details can be found in Issues with data.

## 30-06-2020 ECMWF forecast system change

Update of ECMWF forecast system. A new version of ECMWF model (IFS cycle 47r1) was introduced at ECMWF.

This cycle includes changes in the treatment of observations and improvements in the data assimilation and to the model. Quintic vertical interpolation in the semi-Lagrangian advection scheme has been introduced as well as the inclusion of a better surface albedo climatology making use of more data from the MODIS instrument.

New Metrics of Tropical Cyclone (TC) "size" will supplement the existing forecasts of TC track and intensity.

The processing of the IFS reforecast (run in advance) has been suspended for the July's runs so that they would be computed from tomorrow by the new model version already.

Full details can be found in Implementation of IFS Cycle 47r1 page.

#### 18-05-2020 ECCC issue with u/v components fixed

The ECCC issue with U and V components on pressure levels and at the 10m affecting all outputs (real-time and reforecast) in the period 11.7.2019-9.1.2020 was fixed now. Users should re-download the affected data if they get them before 18 May 2020. For more details go directly to the Issues with data page.

#### 02-04-2020 CMA ocean parameters

The new 9 ocean parameters from CMA coupled model have been back-archived in S2S archive, the real-time runs since 11 November 2019 and the fixed reforecast ones since 2 January 2020 at the moment. The remaining fixed reforecast period 11.11. 2019-30.12. 2020 will be added in the following to have a complete set of those new parameters after the latest CMA model change in November 2019 as per the news item below. The new data is discoverable via the dedicated S2S web data portal under a new level type o2d.

## 24-03-2020 JMA model system change

Change of the model version to GEPS2003 has applied to the real-time forecasts since the 24<sup>th</sup> March 2020. The new set of the fixed reforecasts (1981-2010) will be archived later during 2020. The reforecast frequency will be reduced from 3 to 2 per month with increased number of perturbed members from 5 to 13. M ore information can be found in the JMA model description page.

## 13-02-2020 ECCC ocean parameters

The 9 new ocean parameters from ECCC coupled model have been added to S2S archive for both real-time and on-the-fly reforecast runs since 6 Feb 2020 onwards. The new data is discoverable via the dedicated S2S web data portal under a new level type *o2d* (please be aware of the usual 3 weeks data availability delay because of the S2S archive policy).

#### 23-01-2020 ECMWF ocean parameters

The 9 new ocean parameters from ECMWF coupled model have been added to S2S archive since 2 Jan 2020 resp. 30 Dec 2019 in case of real-time resp. reforecast outputs. The new data is discoverable as usually via the dedicated S2S web data portal under a new level type o2d.

## 2019

#### 11-11-2019 CMA model system change

Change of the model version to BCC-CPS-S2Sv1 will apply to real-time forecasts from the 12<sup>th</sup> November, the frequency changes from daily to 3daily. The reforecasts type has been changed to the "on-the-fly" for the past 15 years. M ore information can be found in the CMA model description.

## 07-08-2019 On-the-fly reforecast history page

The page showing data availability of the on-the-fly reforecasts produced currently for S2S archive has been added.

#### 25-06-2019 Issues with data

The Issues with data page was updated with two newly acknowledged data issues in S2S archive as per below. Please be informed that both issues have already been fixed by 25.6.2019.

• KMA: wrong soil initial data affecting runs in the period 9-17.6.2019

• ECMWF: 4 hindcast runs in the period 13-24.6.2019 were produced by the former model version before the IFS system change on 11.6. It causes inconsistency to the real-time outputs produced already by the new model version.

For more details go directly to the data issues page.

## 28-03-2019 UKMO model system change

Change of the model version to GloSea5-GC2-LI. The new model will be used for real-time forecasts from the 3<sup>rd</sup> April and for reforecasts from the run on the 9<sup>th</sup> of April (the data from April reforecast runs is available in the archive already now as it is produced always well in advance in UKMO case). M ore information can be found in the model's description page.

## 2018

## 06-12-2018 S2S Tropical Cyclone Tracks available

Tropical cyclone tracks computed for all S2S re-forecasts and 3-week behind real-time forecasts are now available from ftp://s2sids: s2sidx@acquisition.ecmwf.int M ore information can be found in the page Tools.

#### 25-10-2018 UK Met Office (egrr) reforecast update

One more re-forecast year (2016) has been added to the UKMO on-the-fly re-forecast outputs since the 1<sup>st</sup> of September 2018. More information can be found in the models' description page .

## 10-10-2018 S2S related workshop at ECMWF

There will be a major event related to S2S archive at ECMWF, 2-5 April 2019: Workshop on Predictability, dynamics and applications research using the TIGGE and S2S ensembles. It is open now for registration and abstract submission.

Click here for more details.

## 05-09-2018 Météo-France (Ifpw) reforecast update

The re-forecast frequency was changed from two to four times per month (runs on each 1<sup>st</sup>, 7<sup>th</sup>, 15<sup>th</sup> and 22<sup>nd</sup> day of month). More information... here

## 18-06-2018 Usage statistics

A new page with S2S data usage statistics was added.

## 06-02-2018 HW issue affecting some S2S hindcasts availability

We have recently experienced a hardware incident with a tape volume becoming damaged:

• From 31 December 2017, half of the hindcast (enfh), perturbed forecast (pf), pressure level data (pl) are not available from tape. Note data cached on disk is still available.

Unfortunately, requests for data from a damaged tape are blocking access to all S2S data. In order to prevent blocking all S2S service via the WebAPI, we have disabled access to that specific dataset (reforecast, perturbed forecast, pressure level) until the problem is resolved.. We apologise for any inconvenience.

As of 06 Feb 2018 19:00 UTC access to all hindcasts has been restored.

## 2017

## 21-11-2017 HW issue affecting some S2S hindcasts availability

We have recently experienced a couple of hardware incidents with tape volumes becoming damaged:

- 1. During October 2017, a large proportion of hindcast (enfh), perturbed forecast (pf), single level data (sfc) was not available from tape. Data cached on disk would not be affected, but data from tape would fail. This problem was resolved on 8th November 2017.
- 2. From beginning of November 2017 until 21st November, half of the hindcast (enfh), perturbed forecast (pf), pressure level data (pl) are not available from tape.

Unfortunately, requests for data from damaged tapes were blocking access to all S2S data. In order to prevent blocking all S2S service via the WebAPI, we disabled access to (2) during the specified period. We apologise for any inconvenience.

As of 21 Nov 2017 14:30 UTC access to all hindcasts has been restored.

#### 07-11-2017 New ISAC fixed reforecast set

New fixed ISAC reforecast set was added to S2S archive. The new model version date it relates to is 2017-06-08. The new reforecasts contain now newly perturbed outputs as well and the lead time has been extended to +32 days. The data availability can be discovered as usually via the dedicated S2S data portal at ECMWF

## 08-06-2017 RHMC on-the-fly reforecast change

Since the 8<sup>th</sup> of July 2017 the RHMC (rums) reforecasts have been produced on Thursdays instead of previous Wednesdays.

#### 03-11-2017 Update on the data issues in Meteo-France outputs

The Meteo-France ssrd field is actually correct. The issue described previously only concerns the French seasonal forecast system but not the S2S one. However there is a newly acknowledged 10-meter wind fields issue - both the zonal and meridian components are effectively wrong. For more details go to the data issues page.

## 01-11-2017 New JMA fixed reforecast set

New fixed JMA reforecast set was added to S2S archive. The new model version date it relates to is 2017-01-31. Comparing to the previous set of JMA reforecasts (with the previous model version date 2014-03-04) it has two more year longer reforecast period 1981-2012. The data availability can be discovered as usually via the dedicated S2S data portal at ECMWF.

### 19-10-2017 Issues with some pressure level KMA data fixed

The problems with U/V and geopotential fields (500 hPa and higher levels only) in pressure level outputs from KMA were fixed. The affected data in MARS was re-archived (period between the 29<sup>th</sup> March and end of August, 2017). For more details, please visit the page about Issues with data.

#### 09-10-2017 Issue with data (Meteo-France, ssrd)

All surface solar radiation downwards (sord) data from Meteo France is wrong. Please see update from 03-11-2017 above. For more details go to the data issues page.

## 11-08-2017 Issue with data (KMA 500 hPa geopotential)

The model outputs from KMA - 500 hPa geopotential fields are wrong since the 29<sup>th</sup> March, 2017. For more details go directly to the data issues page.

## 13-06-2017 Issues with data

The Issues with data page was updated with newly acknowledged data issues in S2S archive:

- KMA: problematic wind components fields on pressure levels
- JMA:
  - wrong valid times of the maximum/minimum temperature
    wrong accumulated parameters(except for total precipitation)

For more details go directly to the data issues page.

## 08-06-2017 ISAC-CNR change

The ISAC-CNR real-time forecast length has been increased to 32 days since Thursday, the 8<sup>th</sup> of June 2017. Further, since the same model run date the vertical speed has been added to all archived pressure levels instead of previous 500 hPa only.

## 08-06-2017 HMCR starting day change

The both HMCR runs (real-time and reforecast) are starting now on Thursdays instead of Wednesdays. The 1<sup>st</sup> affected runs are from Thursday 8<sup>th</sup> of June 2017. This change was done to facilitate the usage of S2S re-forecasts (to have them starting all on the same week day).

## 23-05-2017 S2S user survey

The results of the 1<sup>st</sup> S2S user survey have been published. The total number of 116 users answered various questions about their experience with S2S products.

## 22-03-2017 JMA model change

A new version of JMA forecasting system (GEPS1701) has been introduced since the run on 22<sup>nd</sup> March, 2017. More information... here

#### 22-02-2017 UKMO reforecast system update

The number of ensemble members for each hindcast year in UKMO re-forecasts has been increased from 3 to 7. The first affected model run is from the 25<sup>th</sup> of March, 2017. More information ... here

## 20-01-2017 ISAC-CNR starting day change

Since the 19<sup>th</sup> of January 2017 the ISAC-CNR real-time forecast starting date has been changed from Monday to Thursday. The last archived Monday's outputs are from the 16<sup>th</sup> of January 2017. This change was done to facilitate usage of S2S re-forecasts data where 10 models from 11 have now the starting date on Thursdays. For example it makes possible to produce a multi-model ensemble easily.

## 10-01-2017 KMA forecasts added to S2S database

The both real-time and re-forecast outputs from KMA model have been archived in S2S database starting from the 1<sup>st</sup> of November, 2016. More information ... here

## 2016

## 22-11-2016 ECMWF model change

A new ECMWF model version (CY43R1) was released. It affects the ECMWF's outputs for S2S since the Thursday run on the 24<sup>th</sup> of November. Mor e information ... here

## 24-10-2016 UKMO reforecast system update

The UKMO re-forecasts have been extended backwards to have all available hindcast years (1993 to 2015) since April 17, 2016 already. More information ... here

### 10-10-2016 Vertical velocity(w) archiving extended in ECMWF outputs

Following S2S steering group recommendation the vertical velocity (w) archiving has been extended in ECMWF real-time and re-forecast outputs from one vertical level (500 hPa) to the same vertical levels as u and v velocity components since October 3, 2016.

## 27-09-2016 Vertical velocity(w) archiving extended in CMA real-time forecasts

Following S2S steering group recommendation the vertical velocity (w) archiving has been extended in CMA real-time forecasts from one vertical level (500 hPa) to the same vertical levels as u and v velocity components since September 18, 2016.

## 15-09-2016 S2S forecast products

A new range of near-real time forecast charts based on the Sub-seasonal to Seasonal predictions (S2S) database is now openly available at: www. ecmwf.int/en/research/projects/s2s/charts/s2s

They can be used to monitor the S2S data and assess the quality of the forecasts, as well as providing a testbed for the development of new products, for example to identify signals for extreme events at the sub-seasonal timescale. The products include ensemble mean anomalies for some meteorological parameters, Extreme Forecast Index (EFI) for 2m temperature and forecasts of the Madden and Julian Oscillation (MJO). Since S2S is a research project, the forecasts are available with a 3-week delay; they are not intended for operational use.

Currently the S2S charts are limited to six models. In future all 11 S2S models will be included and the range of products will be extended.

## 29-06-2016 ECCC forecasts added to S2S database

The both real-time and re-forecast outputs from ECCC model have been archived in S2S database started on January 7, 2016. More information ... he re .

#### 17-06-2016 Meteo-France interpolation error fixed

The interpolation problem in all Meteo-France real-time data in the period 19.5.-16.6. was fixed. The affected data in MARS was re-archived with the corrected one **on June 17**. For more details, please visit the page about Issues with data.

#### 24-05-2016 CMA initial conditions real-time data problem fixed

The problem with initial conditions in some CMA real-time data in January 2015 and 2016 was fixed. The affected data in MARS was re-archived. For more details, please visit the page about Issues with data.

### 07-05-2016 More resources available for ECMWF's S2S Data Portal

In the last few months we have experienced an increase in the number of users and requests accessing re-forecast data. Substantial disk space has made available in order to keep such data cached on disk. Users should experience a much better throughput, specially for re-forecasts of models with fixed configurations.

### 25-04-2016 UKMO reforecast system change

The UKMO re-forecasts have been extended with 9 more hindcast years (1993-1995 and 2010-2015) since 17 April, 2016. More information ... here

#### 13-04-2016 Météo-France (Ifpw) real-time forecast update

The real-time forecast frequency was changed from once per month to weekly and the length of forecast was changed from 61 to 32 days. The first date archived with this new setup is 3rd March 2016. More information... here

### 31-03-2016 CMA sea-ice cover issue fixed

For more details, please visit the page about Issues with data.

#### 23-03-2016 More issues with data: problems with sea-ice cover from CMA and BoM

Sea-ice cover data from BoM and CMA have problems, mostly in the re-forecast. Users are recommended not to make use of this data until it has been replaced in the S2S Archive, which we aim to do in the coming weeks. This will be announced to users. For more details, please visit the page about Issues with data.

## 08-03-2016 ECMWF forecast system change

Update of ECMWF forecast system. A new version of ECMWF model (IFS cycle 41r2) was introduced at ECMWF.

The main consequences for ECMWF-S2S data are:

- Introduction of a new model grid: the reduced Gaussian octahedral grid;
- Horizontal resolution of the ENS increased from T<sub>L</sub>639 / N320 to T<sub>CO</sub>639 / O640 for ENS (Days 0 15) and from T<sub>L</sub>319 / N160 to T<sub>CO</sub>319 / O320 for ENS Extended (Days 16 46), where subscript C stands for cubic and O for octahedral;
- For the medium-range ENS there will no longer be a decrease of resolution at day 10: the ENS Days 11 15 will be run at the same T<sub>CO</sub>639 / O640 resolution as ENS Days 0 10;

Click here for full details.

## 13-01-2016 ECMWF e-suite tests

The new upcoming version of ECMF model has been tested. Both runs Monday's and Thursday's of real-time forecast and hindcasts have been tested to be prepared for smooth switching to the new version soon.

## 06-01-2016 UKMO reforecasts added to S2S database

The on-the-fly produced UKMO re-forecasts have been added to S2S database with the 1st archived date January 1, 2016. More information ... here

#### 05-01-2016 NCEP reforecasts complete

NCEP re-forecasts archiving for the fixed period 1999-2010 was completed. The whole period is now fully available for users.

#### 10-12-2015 UKMO real-time forecasts model added to S2S database

The real-time part of UKMO model outputs started to be archived in S2S database since December 1, 2015. More information ... here

## 04-12-2015 ISAC-CNR model added to S2S database

The model outputs from ISAC-CNR were added to S2S database. The 1st available date is November 9, 2015. More information ... here

## 10-10-2015 Issues with data

A page Issues with data was created with the intention to make users aware of important issues with the data. We suggest users to 'Watch' that page so they should get notified of any issue we believe is relevant. More information... here

## 06-10-2015 Scripts to help retrieving reforecasts data

We have documented a couple of cases on how to write scripts to retrieve data efficiently via the WebAPI. In order to do that one needs to know the frequency and availability of each Centre's re-forecast. These use cases are linked in the page with models' description (click on the model name in the first column there)

For example the links to BoM or CMA use cases are here: BoM: https://software.ecmwf.int/wiki/display/S2S/BoM+re-forecast+efficient+retrieval CMA: https://software.ecmwf.int/wiki/display/S2S/CMA+re-forecast+efficient+retrieval

## 06-10-2015 Availability of reforecasts

The web interface to access re-forecasts was opened. The interface is available here

## 07-09-2015 Météo-France (Ifpw) reforecast update

The re-forecast frequency was changed from once to twice per month. More information... here

## 26-06-2015 HMCR model added to S2S database

The real-time part of HMCR model was added to S2S database. More information ... here

## 26-06-2015 Météo-France added to S2S database

A new model was added to S2S database. More information ... here

### 10-06-2015 CMA added to S2S database

A new model was added to S2S database. More information ... here

## 14-05-2015 ECMWF model upgrade

The major difference for S2S database is the model running frequency change to twice a week and the extension of the forecast length to 46 days. More information ... here

#### 06-05-2015 S2S database launch at ECMWF

The official launch of S2S database

Near real-time forecasts from four data providers (BoM, ECMWF, JMA and NCEP) have been ingested routinely since January 2015.

More information... here