

IFS Cycle 50r1 and AIFS v2

Data access and format,
testing and practicalities

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With contributions from many in ECMWF – thank you!

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1. Implementation timeline



IFS Cycle 50r1 timeline

Cycle declared ready for implementation
September 2025

Initial announcement
10 September

Start Release Candidate Phase
19 February 2026

Joint implementation of 50r1 (NWP & CAMS), AIFS Single v2.0, AIFS ENS v2.0
12 May 2026



15 September 2025

Science webinar



26 February 2026

Meteorological /technical webinar

12 March 2026

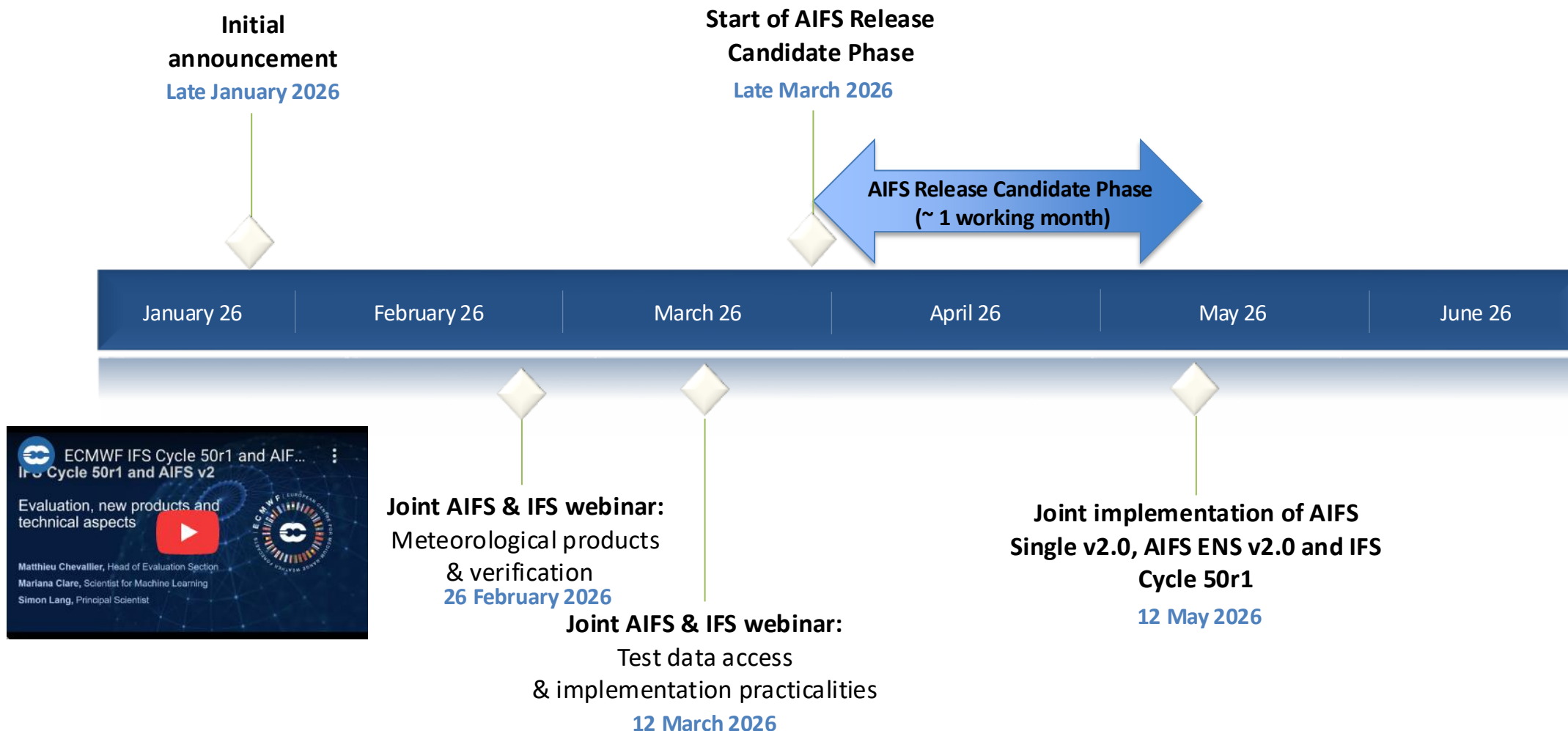
Data access / testing and practicalities webinar

Alpha phase (scientific and technical testing)

Beta phase (e-suite catch up + real time running)

Release Candidate Phase (~3 months)

AIFS Single and ENS v2.0 timeline



2. IFS 50r1 information



What IFS configurations are affected

Operational Analysis (initial conditions to both IFS and AIFS models): IFS-DA

Medium-range Ensemble Forecast (including Control Forecast): IFS-ENS / IFS-ENS-CF

Sub-seasonal Ensemble Forecast: IFS-SUBS

Atmospheric Composition Forecast: IFS-COMPO (CAMS)



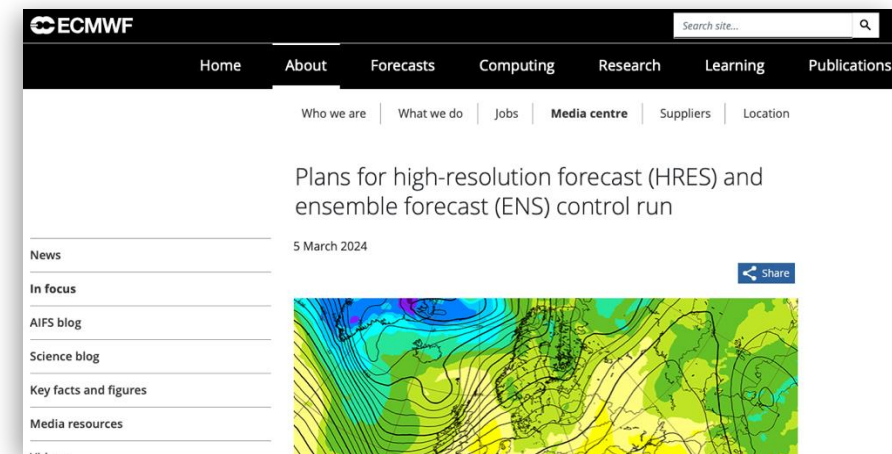
Greenhouse Gases Forecast: IFS-GHG (CAMS)



Not affected: Seasonal forecasts, Reanalysis

HRES *versus* ENS Control – the harmonisation

- **In cy48r1:** ENS members and HRES have the same horizontal resolution ...
 - HRES now plays a similar role to the ENS “control” run (unperturbed)
 - HRES and ENS Control are still 2 separate unperturbed runs with different outputs
 - HRES 00 and 12 UTC are 10-day long; ENS Control 00 and 12 UTC are 15-day long
 - HRES is disseminated earlier than the full ENS
- **In cy49r1 (November 2024)**
 - Both ENS Control and HRES are computationally identical
 - Both run to 15 days for 00 and 12 UTC and to 6 days for 06 and 18 UTC
- **In cy50r1 (12 May 2026)**
 - Current “ENS Control” run will be stopped
 - Data Stream formerly called “HRES” will be the “Control” run
 - This “Control” run will be available on the same schedule as the former “HRES” (earlier than the perturbed ENS forecasts)



In practice, this means...

- IFS-ENS Control forecasts will be disseminated and archived with **stream=oper, type=fc**, rather than stream=enfo, type=cf
- IFS-ENS Wave Control forecasts will be disseminated and archived with **stream=wave, type=fc**, rather than stream=waef, type=cf

Updates to the 06/18 UTC runs

- IFS-ENS Control forecasts from **06/18 UTC** runs will be disseminated and archived with **stream=oper, type=fc**, rather than stream=scda, type=fc
- IFS-ENS Wave Control forecasts from **06/18 UTC** runs will be disseminated and archived with **stream=wave, type=fc**, rather than stream= scwv, type=cf

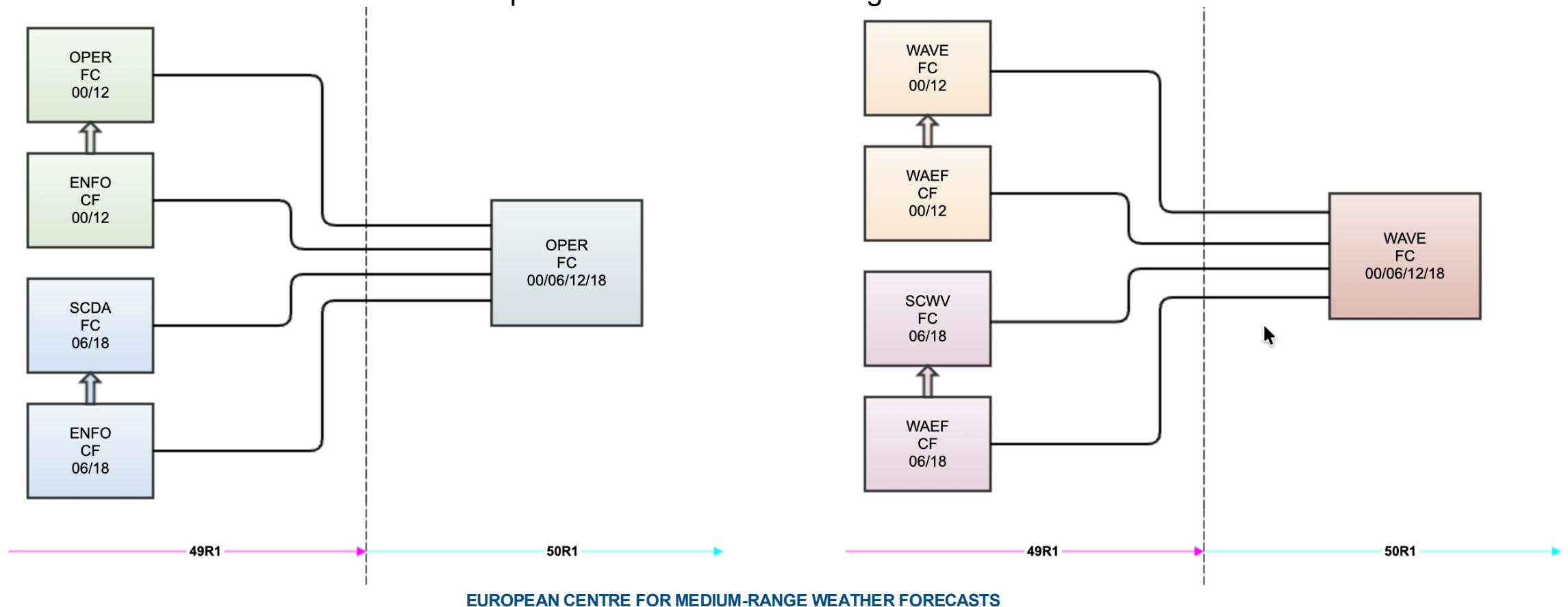
Both will continue to have **steps up to 144**

What does this mean for users?

- **All dissemination requirements** containing
 - control forecast of enfo and waef streams
 - scda and scwv streams

<https://confluence.ecmwf.int/display/FCST/Data+streams+and+types+to+be+discontinued+in+IFS+cycle+50R1+and+user+impact>

will need to be modified to equivalent streams on the diagram below



Do you really have to manually update everything?

No, following changes are automatically applied to user dissemination requirements in the test system:

- use=bc removed
- Changed stream=scda → stream=oper
- Changed stream=scwv → stream=wave
- Changed class=od, stream=enfo, type=cf → class=od, stream=oper, type=fc
- Changed class=od, stream=waef, type=cf → class=od, stream=wave, type=fc
- Changed expver=0001 → expver=0080 (for RCP only)
- Exact duplicate request blocks (after transformation) removed

Updates to the 06/18 UTC runs

- 49r1: Two analysis for the 06 UTC and 18 UTC run:
 - one in the stream=scda/scwv, type=an, and
 - one in stream=oper/wave, type=an that is produced in 00 UTC and 12 UTC runs.
- The analysis produced within **00/12 runs will be discontinued**, and the one currently under **scda** stream will be **moved** under **stream=oper, type=an**.

Updates to the 06/18 UTC runs

New parameters added to 06/18 UTC runs

Control forecast

- Simulated Satellite Data

Control and perturbed forecast

- Heat and cold indices, mean radiant temperature and globe temperature

Postprocessed ensemble forecast

- EFI and SOT
- Ensemble mean and spread parameters
- Event probabilities parameters
- Cluster means parameters
- Cluster representative parameters

Updates to the 06/18 UTC runs – EFI and SOT

The 06UTC and 18UTC (6-day) EFI and SOT parameters' steps

- Additional daily steps:

	06 UTC	18 UTC
•	18 – 42	6 – 30
•	42 – 66	30 – 54
•	66 – 90	54 – 78
•	90 – 114	78 – 102
•	114 - 138	102 – 126

- Additional 3-daily steps:

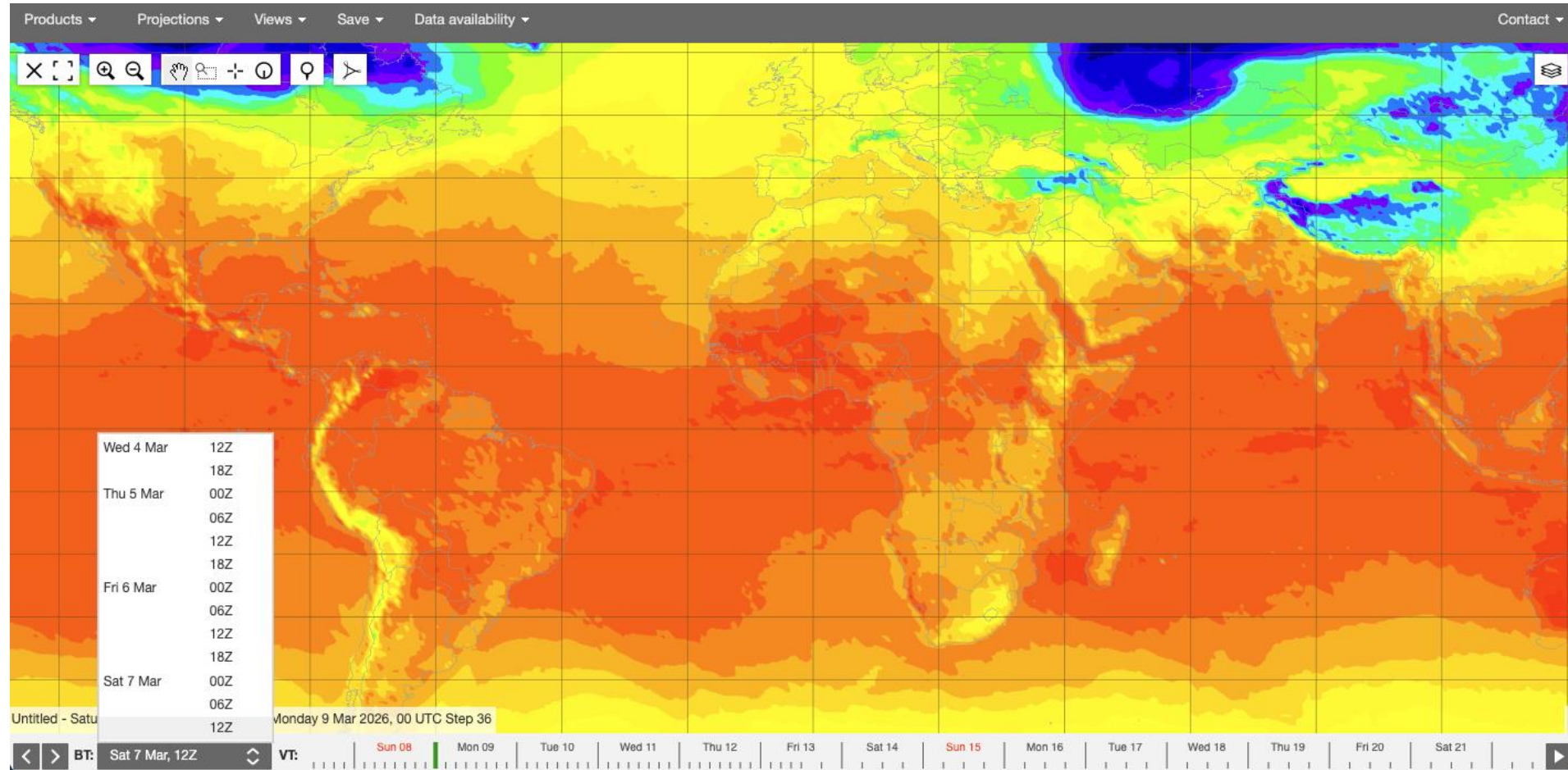
	06 UTC	18 UTC
•	18 – 90	6 – 78
•	42 – 114	30 – 102
•	66 – 138	54 – 126

- Additional 5-daily steps:

	06 UTC	18 UTC
•	18 – 138	6 – 126

Updates to the 06/18 UTC runs

06/18 UTC forecast will be available on ecCharts/OpenCharts



New and updated parameters

- Wet-bulb temperature
- Fraction of snow cover
- Urban cover (replacing Vegetation fraction difference, deprecated)

- New ocean parameters
 - 2 new level types: o2d and o3d with 75 vertical levels
 - Current ocean parameters with levtype=sfc are staying (for example, Sea surface temperature)

- New sea ice parameters
 - ~15 parameters on o2d level type



NWP



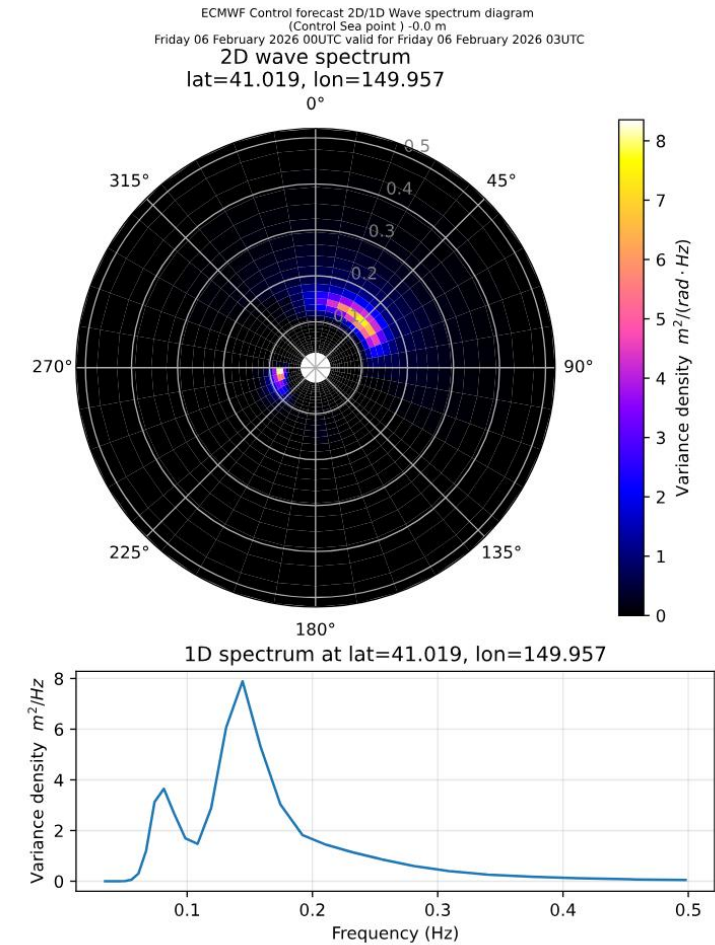
CAMS

New graphical product

Ocean wave energy spectrum at a specific location

- 2D wave spectrum as a **polar plot**
- 1D wave spectrum as a **line plot**

Ocean wave spectra diagram



3. IFS Data Access & Testing



Data Availability on RCP - as of Wednesday 11th March 2026

Class	Model (stream)	Run	Available?
OD	Data assimilation (oper/wave)	All	Yes
	Control forecast (oper)	All	Yes
	Wave (wave)	All	Yes
	Ensemble forecast (enfo)	All	Yes
	Ensemble reforecast (enfh)	All	No
	Ensemble wave (waef)	All	Yes
	Ensemble post-processed	All	Semi *
	Sub-seasonal forecast (eefo/weef)	All	No
	Sub-seasonal reforecast (eefh)	All	No
MC	Atmospheric Composition	All	Yes

System	Run	Available?
ecCharts / Open Charts	All	Yes
Free & Open Data Portal (https://data.ecmwf.int/)	All	Yes
TC3-LBC (IFS-AROME-LBCs)	All	Yes

* type=efi/sot are not available yet.

File-naming Convention Changes on Real-time Dissemination

1. LEGACY

{Feed}{StreamIndicator}{monthDayHourMinute_based}{monthDayHourMinute_valid}{experimentVersion}

A1D030900000309060080

2. ECMWF

{DESTINATION}_{FEED}_{modelName}_{class}_{stream}_{type}_{forecastDate}_{validDate}_{step}_{optional:expVersion}

nvo_a1_ifs-ens-cf_od_oper_fc_20260309T000000Z_20260309T060000Z_6h_X0080

3. WMO

{pFlag}_{productIdentifier}_{oFlag}_{originator}_{productionDate}_{freeFormat}.{extension}

locationIndicator,model+Name,destination+feed+class+stream+type+expver

validDate_step_fileFormat

W_xx-ecmwf-reading,ifs+ens+cf,nvo+a1+od+oper+fc+0080_c_ecmf_20260309000000Z_20260309T0600Z_6h_grib.bin

<https://confluence.ecmwf.int/display/DAC/File+naming+convention+and+format+for+real-time+data>

File-naming Convention Changes on Real-time Dissemination

- As part of the IFS Cycle 50r1 migration, there will be changes to the data requirements. These changes will affect the file-names of the data.

1. use=bc removed

Model	Stream:type	LEGACY	ECMWF
IFS 49r1	OPER:FC	A1S12050000120500011	nvo_a1_ifs-ens-cf_od_oper_fc_20251205T000000Z_20251205T000000Z_0h
IFS 50r1	OPER:FC	A1D12050000120500011	nvo_a1_ifs-ens-cf_od_oper_fc_20251205T000000Z_20251205T000000Z_0h

2. stream=scda => stream=oper

Model	Stream:type	LEGACY	ECMWF
IFS 49r1	SCDA:FC	B1S12050600120506011	nvo_b1_ifs-ens-cf_od_scda_fc_20251205T060000Z_20251205T060000Z_0h
IFS 50r1	OPER:FC	B1D12050600120506011	nvo_b1_ifs-ens-cf_od_oper_fc_20251205T060000Z_20251205T060000Z_0h

3. class=od, stream=enfo, type=cf => class=od, stream=oper, type=fc

Model	Stream:type	LEGACY	ECMWF
IFS 49r1	ENFO:CF	B1E12050600120506001	nvo_b1_ifs-ens_od_enfo_cf_20251205T060000Z_20251205T060000Z_0h
IFS 50r1	OPER:FC	B1D12050600120506011	nvo_b1_ifs-ens-cf_od_oper_fc_20251205T060000Z_20251205T060000Z_0h

<https://confluence.ecmwf.int/display/FCST/Dissemination+file-naming+changes+from+IFS+Cycle+49r1+to+50r1>

Access methods - MARS Archive

- 50r1 data in MARS Archive
- Experiment version = 80 is available

On the cycle implementation date, IFS Cycle 50r1 will run under expver=0001, replacing IFS Cycle 49r1.

- Note that expver=80 data may not be available before November 2025.
- Test data produced before the start of the Release Candidate Phase (before 18 Feb 2026 18Z run), should be **used with caution** as it may contain errors that were subsequently fixed.

<https://apps.ecmwf.int/archive-catalogue/?class=od>

Archive Catalogue

2026

January	month=jan
February	month=feb
March	month=mar

Current selection

year: 2025, 2026

type: 4i, 4v, an, fc, tf

expver: 1, 80

stream: eefh, eefo, eehs, efho, efhs, efov, enfh, enfo, enwh, ewhc, ewho, mmsa, mmsf, mnth, mmmm, oper, scda, scww, waef, wamo, wave, weef, weeh, wehs, weov

class: ai, od

request

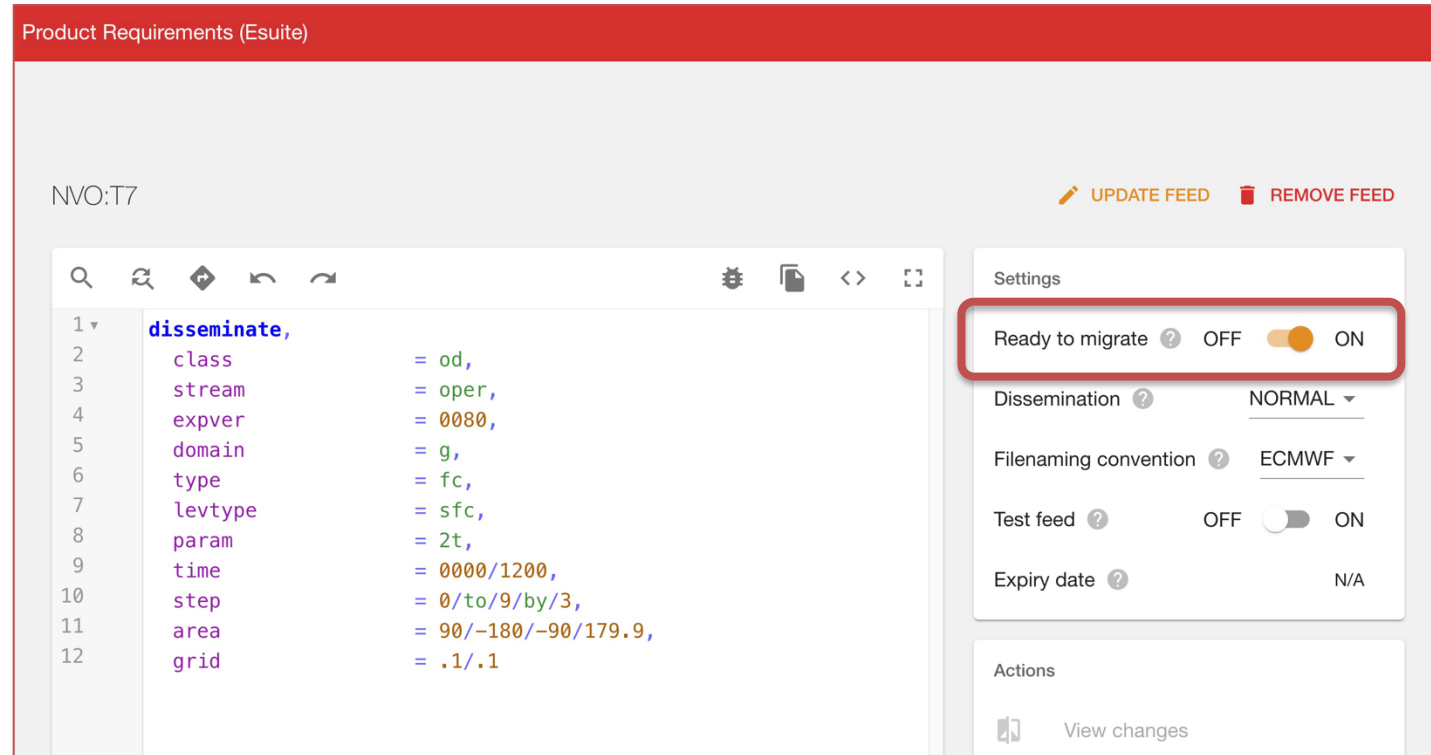
Estimated number of fields: 145

MARS request

```
retrieve,
class=od,
date=2026-03-05,
expver=80,
levtype=sfc,
param=151.128,
step=0/1/2/3/4/5/6/7/8/9/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44/45/46/47/48/49/50/51/52/53/54/55/56/57/58/59/60/61/62/63/64/65/66/67/68/69/70/71/72/73/74/75/76/77/78/79/80/81/82/83/84/85/86/87/88/89/90/93/96/99/102/105/108/111/114/117/120/123/126/129/132/135/138/141/144/150/156/162/168/174/180/186/192/198/204/210/216/222/228/234/240/246/252/258/264/270/276/282/288/294/300/306/312/318/324/330/336/342/348/354/360,
stream=oper,
time=00:00:00,
type=fc,
target="output"
```

Access methods - Test Product Requirements Editor (TPREd)

- TPRED has a red banner and an additional feature called **Ready to Migrate**.
- Users should review and test their new data requirements for IFS Cycle 50r1 in the **TPREd system**.
- Once testing is complete, users should toggle the **Ready to Migrate** button. This informs ECMWF that the feed have been tested and that the configuration is ready to become operational on implementation day.
- If a feed is not marked as **Ready to Migrate**, ECMWF will retain the user's current operational PRED configuration and apply only the mandatory system changes required for IFS Cycle 50r1.



<https://products.ecmwf.int/esuite/requirements/>

Access methods - Test Product Requirements Editor (TPREd) - Key Points

- If changes are made to operational feeds (PREd) during the testing period, those changes must also be replicated in TPREd to keep the test configuration aligned.
- **Access to TPREd and PREd will be frozen one week before the cycle implementation for all user types.**

We strongly encourage users to test their data as early and as thoroughly as possible to confirm that their workflows will function correctly after implementation.



On the day of implementation, ECMWF will not modify user requirements beyond those mandatory changes. While we will keep the configuration production-safe on our side, users who have not tested their feeds may find that some expected files are missing or that their workflows require adjustments.

Access methods - Test Product Requirements Editor (TPREd) - Snippets

Product Requirements (Esuite)

NVO:T7

```
1 disseminate,  
2   class           = od,  
3   stream          = oper,  
4   expver         = 0080,  
5   domain         = g,  
6   type           = fc,  
7   levtype        = sfc,  
8   param          = 2t,  
9   time           = 0000/1200,  
10  step           = 0/to/9/by/3,  
11  area           = 90/-180/-90/179.9,  
12  grid           = .1/.1
```

SNIPPETS

IFS Atmospheric Composition Data CLEAR

- IFS Atmospheric Composition Data Assimilation - CAMS - Model levels - Aerosol set-XI-i-g_an + ADD
- IFS Atmospheric Composition Data Assimilation - CAMS - Model levels - Chemical set-XI-i-h_an + ADD
- IFS Atmospheric Composition Data Assimilation - CAMS - Model levels - Meteorological set-XI-i-i_an + ADD
- IFS Atmospheric Composition Data Assimilation - CAMS - Pressure levels - Aerosol set-XI-i-d_an + ADD
- IFS Atmospheric Composition Data Assimilation - CAMS - Pressure levels - Chemical set-XI-i-e_an + ADD
- IFS Atmospheric Composition Data Assimilation - CAMS - Pressure levels - Meteorological set-XI-i-f_an + ADD

CLOSE

Access methods - Test ECPDS (XDISS)

Test ECPDS system available here: <https://xdiss-monitor.ecmwf.int/>

ECMWF
Destination NVO

ECPDS-XDISS Home > Transmission > Destinations > NVO

Transmission

- Data Transfers
- Destinations**
- Transfer Hosts
- Transfer History
- Transfer Methods
- Transfer Modules

NVO (Waiting)

- Parameters
- Data Rates
- Changes Log
- Aliased From
- Aliases To
- Data Users
- Transfer Timeline
- Transfer History
- Metadata

Monitoring

Destination

- Create
- Edit
- Delete

Null & Void Ltd.

🇩🇪 Project other
Notify to
🗑️ ⏪ ⏩ ⏴ ⏵

Status Waiting
Last Transfer 04:29
Last Error 06:29
Started
Monitor no
Filter None
Parallel 10
Acquisition no
Enabled yes

Dissem_Str All (8) **T7 (8)**

Data_Str All (8) 00-GOPER (4) 12-GOPER (4)

Base_Time All (8) 00 (4) 12 (4)

Status All (8) StandBy (8)

Prod_Date All Wed_11 Tue_10 **Mon_09** Sun_08 Sat_07 Fri_06 Thu_05

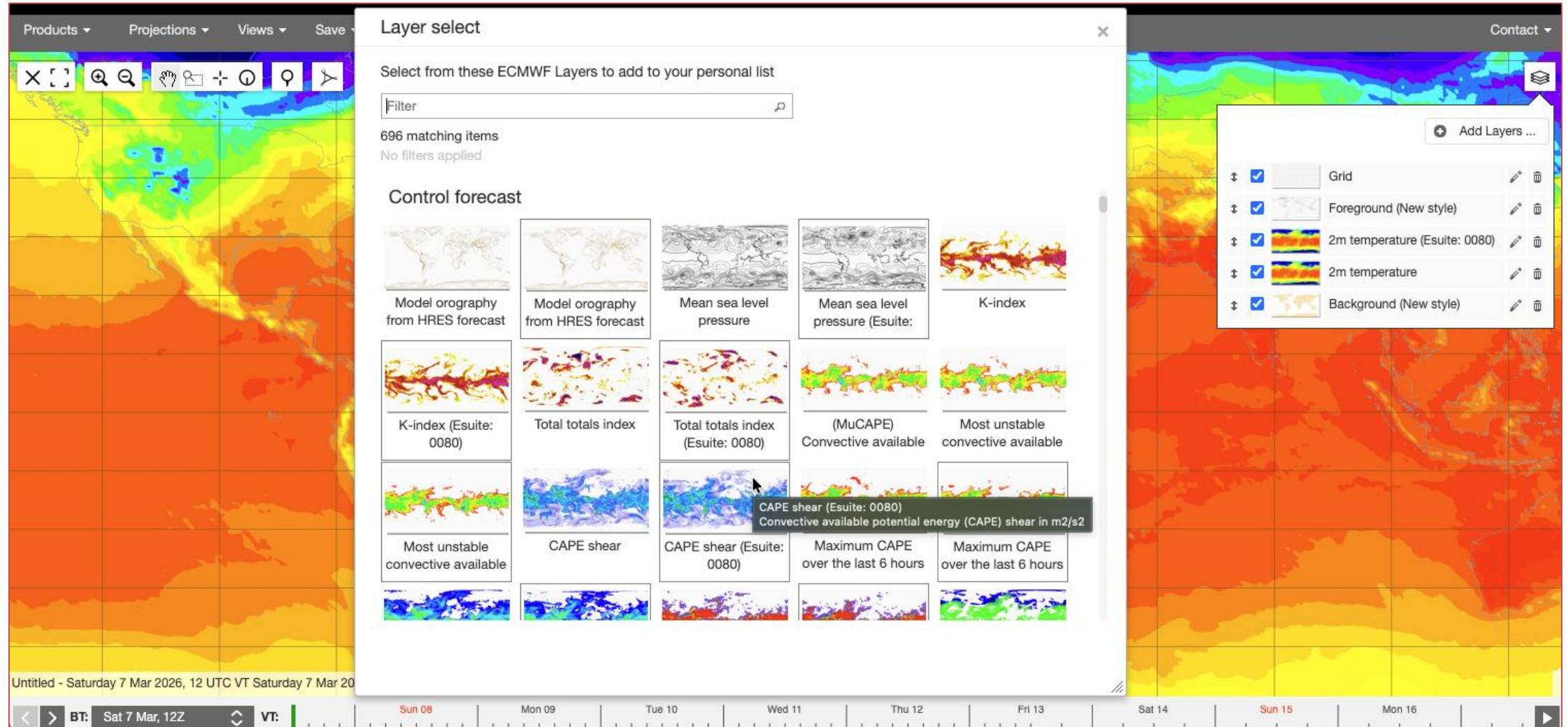
8 items found, displaying all items. 1

Current selection: T7/All/All/All/2026-03-09/* *Current date 2026-03-11 10:22:44*

Err	Host	Sched. Time	Start Time	Finish Time	Target	TS	%	Mbits/s	Status	Prior	Actions	Select
✓	[not-transferred]	11 Mar 08:27:14	[n/a]	[n/a]	nvo_t7_ifs-ens-cf_od_oper_fc_20260309T120000Z_20260309T210000Z_9h_X0080	9	0	[n/a]	StandBy	20	👤 🔄 🟢 🟢 🟢 🟡	▶
✓	[not-transferred]	11 Mar 08:22:36	[n/a]	[n/a]	nvo_t7_ifs-ens-cf_od_oper_fc_20260309T120000Z_20260309T180000Z_6h_X0080	6	0	[n/a]	StandBy	20	👤 🔄 🟢 🟢 🟢 🟡	▶
✓	[not-transferred]	11 Mar 08:21:20	[n/a]	[n/a]	nvo_t7_ifs-ens-cf_od_oper_fc_20260309T120000Z_20260309T150000Z_3h_X0080	3	0	[n/a]	StandBy	20	👤 🔄 🟢 🟢 🟢 🟡	▶
✓	[not-transferred]	11 Mar 08:19:04	[n/a]	[n/a]	nvo_t7_ifs-ens-cf_od_oper_fc_20260309T120000Z_20260309T120000Z_0h_X0080	0	0	[n/a]	StandBy	20	👤 🔄 🟢 🟢 🟢 🟡	▶
✓	[not-transferred]	11 Mar 00:24:53	[n/a]	[n/a]	nvo_t7_ifs-ens-cf_od_oper_fc_20260309T000000Z_20260309T060000Z_6h_X0080	6	0	[n/a]	StandBy	20	👤 🔄 🟢 🟢 🟢 🟡	▶
✓	[not-transferred]	11 Mar 00:24:35	[n/a]	[n/a]	nvo_t7_ifs-ens-cf_od_oper_fc_20260309T000000Z_20260309T090000Z_9h_X0080	9	0	[n/a]	StandBy	20	👤 🔄 🟢 🟢 🟢 🟡	▶
✓	[not-transferred]	11 Mar 00:24:11	[n/a]	[n/a]	nvo_t7_ifs-ens-cf_od_oper_fc_20260309T000000Z_20260309T030000Z_3h_X0080	3	0	[n/a]	StandBy	20	👤 🔄 🟢 🟢 🟢 🟡	▶
✓	[not-transferred]	11 Mar 00:23:12	[n/a]	[n/a]	nvo_t7_ifs-ens-cf_od_oper_fc_20260309T000000Z_20260309T000000Z_0h_X0080	0	0	[n/a]	StandBy	20	👤 🔄 🟢 🟢 🟢 🟡	▶
										A/N/R	8	

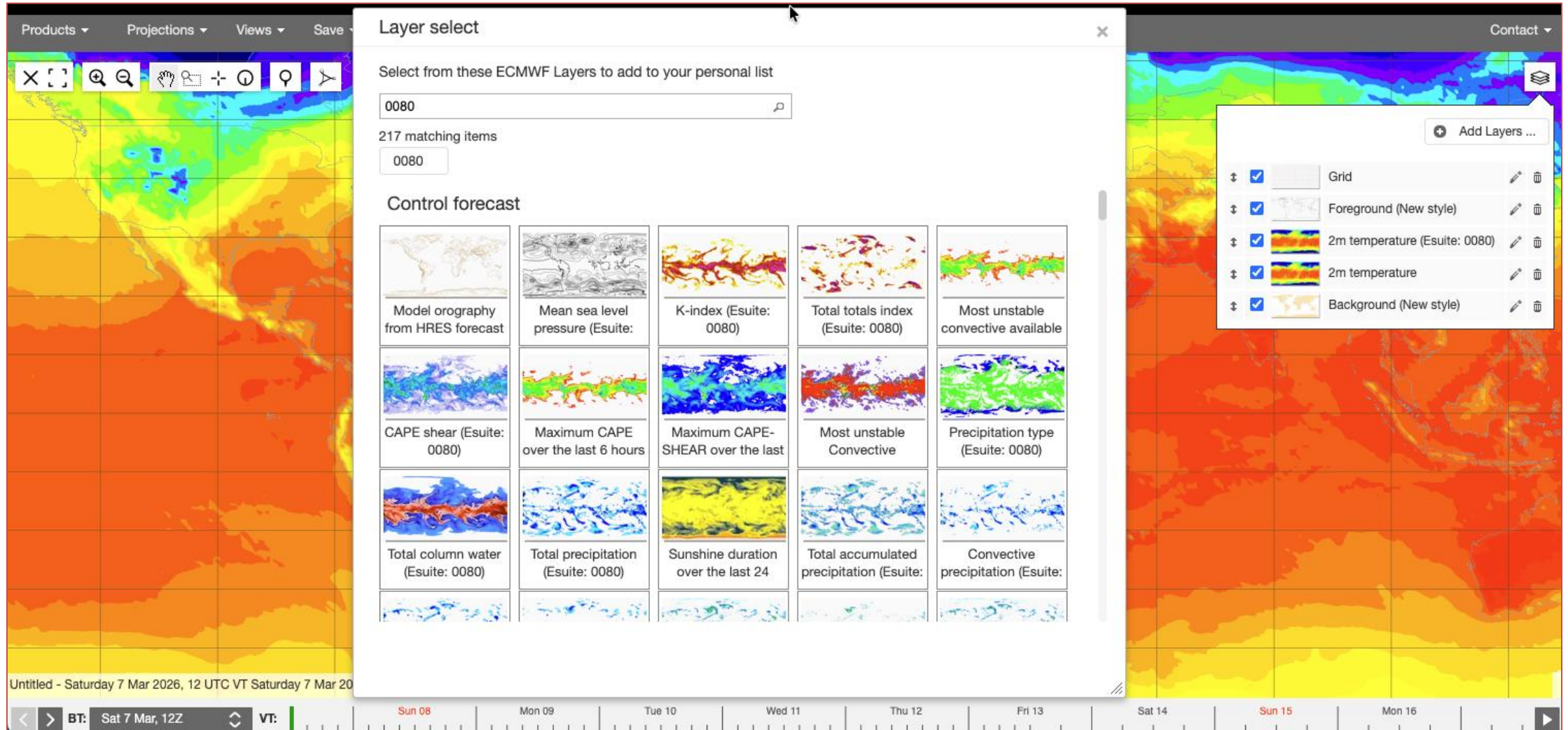
Access methods - ecCharts and Open Charts

Test charts available on ecCharts: <https://eccharts.ecmwf.int/>



Access methods - ecCharts and Open Charts

Test charts available on ecCharts: <https://eccharts.ecmwf.int/>



Access methods - ecCharts and Open Charts

Test charts available on Open Charts: <https://charts.ecmwf.int/>

The screenshot displays the ECMWF Open Charts interface. At the top, there is a navigation bar with the ECMWF logo, a hamburger menu, and the text 'Charts'. On the right side of the navigation bar, there are links for 'Help' and 'Log in'. Below the navigation bar, the main content area is titled 'Home / Charts catalogue'. On the left side, there is a search bar with the placeholder text 'Search products...'. Below the search bar, there are three filter sections: 'Range', 'Type', and 'Component'. The 'Range' section has three checkboxes: 'Medium (15 days)', 'Sub-seasonal', and 'Seasonal'. The 'Type' section has two checkboxes: 'Forecasts' and 'Verification'. The 'Component' section has three checkboxes: 'Surface', 'Atmosphere', and 'Next IFS version (cy50r1)', which is currently selected with a checkmark. The main content area displays three product cards. Each card features a small thumbnail image of a chart, a title, and a brief description. The first card is titled '(Next IFS version - CY50R1) ENS meteograms' and includes the text '**This product shows ENS meteograms from next model version of IFS cycle 509R1 that is planned ...**'. The second card is titled '(Next IFS version - CY50R1) Precipitation type meteogram' and includes the text '(Next IFS version - CY50R1) Probability of precipitation type (%) in precipitation rate categories ...'. The third card is titled '(Next IFS version - CY50R1) ENS visibility meteogram' and includes the text '**Next IFS version (cycle 50r1)**'. This product shows the probability of visibility (%) in 2 ...'. Each card also has a small icon of a hamburger menu with a plus sign in the bottom right corner.

Testing Member and Co-operating State time-critical applications

Option 1 – simple time-critical jobs

- EAccess 'events' can be used for testing user scripts with IFS cy50r1 test data

Event ID	Event name	Description
4303	e_ms096	At this stage, the e-suite step 096 Control (ex HRES-BC) has been generated.
1634	e_ms144	At this stage, the e-suite step 144 (ENS-BC) has been generated.
1635	e_ms240	At this stage, the e-suite step 240 of the Control (ex HRES) has been generated.
1636	e_ms360	At this stage, the e-suite step 360 (ENS) has been generated.
4306	e_ms360ref	At this stage, the e-suite ENS reforecast products have been updated.
1638	e_ms1104	At this stage, the e-suite step 1104 of the sub-seasonal range forecast has been generated.
4305	e_ms1104ref	At this stage, the e-suite sub-seasonal range reforecast products have been updated.
1547	cams_00_test	At this stage, the CAMS forecast *test* model at 00UTC - step 120 - is complete (e-suite).
1548	cams_12_test	At this stage, the CAMS forecast *test* model at 12UTC - step 120 - is complete (e-suite).
4102	ghg_test	At this stage, the CAMS Greenhouse gas TEST forecast model is complete (e-suite)

- For these events, the **MSJ_EXPVER** environment variable is set to 0080. Use in MARS retrievals to specify the IFS cy50r1 test data.

Options 2 and 3: Applications should be tested with the IFS cy50r1 test data either retrieved from MARS or provided through the test dissemination

Accessing 50r1 Test Data - For users receiving data directly from ECMWF

For Member & Co-operating States & Gold and Silver Users:

Access your 50r1 data requirements via the test platform (TPREd):

<https://products.ecmwf.int/esuite/requirements>

Access your 50r1 data files via the test ECPDS (XDISS):

<https://xdiss-monitor.ecmwf.int/>

Access historic data via MARS (if applicable) using **expver 0080**

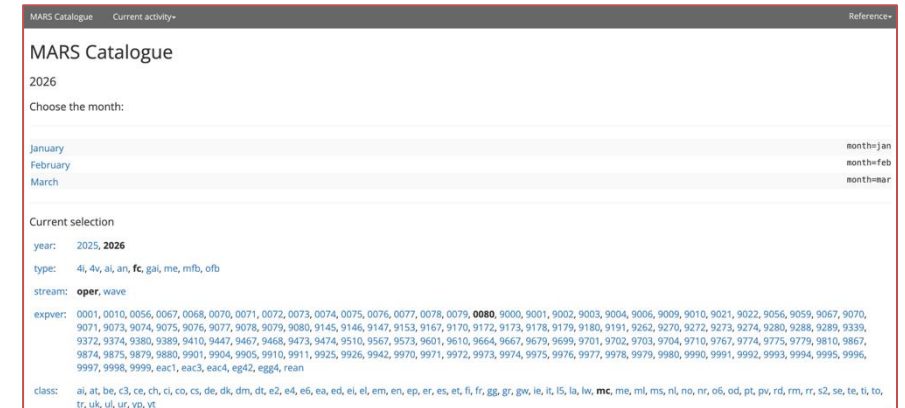
For Basic, Bronze and Research Users:

Complete the [RCP 50r1 - Test System User Details](#) form.

Contact the User Services Section via the [Support Portal](#) to request copies of your new data.

Access to IFS Cycle 50r1 for CAMS data

- MARS Archive
 - **Class = mc** and expver = 0080 is available
 - Note that expver=80 data may not be available before May 2025.
- Dissemination
 - CAMS data is available in dissemination as well
- Additionally:
ECMWF data portal (aux.ecmwf.int; SFTP/FTP/HTTPS data access)
following directories:
 - /DATA/CAMS_GLOBAL_TEST
 - /DATA/CAMS_GLOBAL_ADDITIONAL_TEST
 - /DATA/CAMS_EUROPE_BC_TEST



<https://confluence.ecmwf.int/display/CKB/Accessing+CAMS+global+forecast+50r1+test+data>

4. AIFS v2 data information



Data summary

	AIFS Single	AIFS ENS
Dataset description:	https://www.ecmwf.int/en/forecasts/datasets/set-ix	https://www.ecmwf.int/en/forecasts/datasets/set-x
Forecast runs per day:	00, 06, 12 and 18	
Time steps:	6-hourly	
Forecast length:	15 days	
Grid resolution:	N320 Gaussian grid, equivalent to 0.25° lat/lon resolution (≈31 km)	

- All AIFS data is produced in GRIB edition 2 format

Data changes – v2 GRIB encoding (both models)

generatingProcessIdentifier

Model	Model version		
	v1	v1.1	v2
AIFS Single	3	4	5
AIFS ENS	1	N/A	2

```
grib_get -p generatingProcessIdentifier <file.grib2>
```

tablesVersion (compatible with [ecCodes 2.46.0](#))

Model	Model version		
	v1	v1.1	v2
AIFS Single	34	34	36
AIFS ENS	35	N/A	36

```
grib_get -P tablesVersion <file.grib2>
```

Data changes – v2 GRIB encoding (AIFS ENS)

productDefinitionTemplateNumber

- Encoding will be changed for ENS control forecast at step 0

Parameters	productDefinitionTemplateNumber	
	AIFS ENS v1	AIFS ENS v2
100u, 100v, hcc, lcc, mcc, tcc,	0	1
ssrd, strd, sf, tp, rowe	8	11

*See <https://codes.ecmwf.int/grib/format/grib2/ctables/4/0/> for a description of template numbers

The keys below will also be added for these parameters in V2:

perturbationNumber=0

numberOfForecastsInEnsemble=51

New parameters (both models)

New wave products 

Param ID	Short Name	Name	Units
140114	h1012	Significant wave height of all waves with periods within the inclusive range from 10 to 12 seconds	m
140115	h1214	Significant wave height... from 12 to 14 seconds	m
140116	h1417	Significant wave height... from 14 to 17 seconds	m
140117	h1721	Significant wave height... from 17 to 21 seconds	m
140118	h2125	Significant wave height... from 21 to 25 seconds	m
140119	h2530	Significant wave height... from 25 to 30 seconds	m
140219	wmb	Model bathymetry	m
140229	swh	Significant wave height	m
140230	mwd	Mean wave direction	Degree true
140232	mwp	Mean wave period	s
140233	cdww	Coefficient of drag with waves	dimensionless

New parameters (both models)

New snow products  ***

Param ID	Short Name	Name	Units
228141	sd	Snow depth	kg m ⁻²
260038	snowc	Snow cover	%

A new pressure level, 10 hPa, will be added for parameters Z, U, V, T, W

- NOT for parameter Q (specific humidity)

New parameters (AIFS ENS)

Harmonising AIFS ENS with AIFS Single

Param ID	Short Name	Name	Units	Level
228143	cp	Convective precipitation	kg m ⁻²	sfc
260199	vsw	Volumetric soil moisture	m ³ m ⁻³	sol*

*sol = soil layers.

Valid levels are 1 and 2, which represent 0-7 cm and 7-28 cm, respectively.

5. AIFS Data Access & Testing

Coming soon!



Testing of disseminated AIFS Single V2 and AIFS ENS V2 products

Production of AIFS Single and ENS V2 will run in parallel with the operational production of AIFS Single and ENS V1.

ECMWF Product Requirements

Search...

Home > MS or CS NMS > ECMWF > DSC > TM

DSC:TM

- 1 disseminate, = od,
- 2 class = oper,
- 3 stream = 0001,
- 4 expver = g,
- 5 domain = fc,
- 6 type = sfc,
- 7 levtype = utci,
- 8 param = 0000/1200,
- 9 time = 1/to/90/by/1
- 10 step = 10u

- 49r1 IFS
- AIFS Single V1
- AIFS ENS V1



ECMWF Destination DSC

ECPDS-DISS Home > Transmission > Destinations > DSC

Transmission

ECMWF Data Services

Project other Notify to

Status	Idle	Last Transfer	Last Error	None Started	Monitor	no Filter	lbzip2	Parallel	3 Acquisition	no Enabled	yes
Dissem_Str	All (777)	T3 (125)	TS (270)	TI (32)	TM (180)	TN (145)	TV (25)				
Data_Str	All (777)	00: GENFO (145)	00: GOPER (607)	00: GWAVE (25)							
Base_Time	All (777)	00 (777)									
Status	All (777)	StandBy (777)									
Prod_Date	All	Wed_11	Tue_10	Mon_09	Sun_08	Sat_07	Fri_06				

777 Items found, displaying 1 to 25. [First/Prev] 1, 2, 3, 4, 5, 6, 7, 8 [Next/Last]

Current selection: All/All/All/2026-03-11/* Current date 2026-03-11 10:48:45

Err	Host	Sched. Time	Start Time	Finish Time	Target	TS	%	Mbits/s	Status
✓	[not-transferred]	11 Mar 08:30:00	[n/a]	[n/a]	TMM03110000031220001	44	0	[n/a]	Standf
✓	[not-transferred]	11 Mar 08:30:00	[n/a]	[n/a]	TMM03110000031106001	6	0	[n/a]	Standf
✓	[not-transferred]	11 Mar 08:30:00	[n/a]	[n/a]	TMM03110000031102001	2	0	[n/a]	Standf
✓	[not-transferred]	11 Mar 08:30:00	[n/a]	[n/a]	TMM03110000031107001	7	0	[n/a]	Standf
✓	[not-transferred]	11 Mar 08:30:00	[n/a]	[n/a]	TMM03110000031110001	10	0	[n/a]	Standf

- 50r1 IFS
- AIFS Single V2
- AIFS ENS V2



ECMWF Product Requirements (Esuite)

Search...

Home > MS or CS NMS > ECMWF > DSC > TM

DSC:TM

- 1 disseminate, = od,
- 2 class = oper,
- 3 stream = 0080,
- 4 expver = g,
- 5 domain = fc,
- 6 type = sfc,
- 7 levtype = utci,
- 8 param = 0000/1200,
- 9 time = 1/to/90/by/1
- 10 step = 10u

ECMWF Destination DSC

ECPDS-XDISS Home > Transmission > Destinations > DSC

Transmission

ECMWF Data Services

Project other Notify to

Status	Idle	Last Transfer	Last Error	None Started	Monitor	no Filter	lbzip2	Parallel	3 Acquisition	no Enabled	yes
Dissem_Str	All (2047)	T3 (432)	TS (580)	TI (66)	TM (360)	TN (508)	TV (100)				
Data_Str	All (2047)	00-GENFO (145)	12-GENFO (145)	00-GOPER (627)	06-GOPER (201)	12-GOPER (628)	18-GOPER (201)				
Base_Time	All (2047)	00 (797)	18 (25)	06 (226)	18 (226)						
Status	All (2047)	StandBy (2047)									
Prod_Date	All	Wed_11	Tue_10	Mon_09	Sun_08	Sat_07	Fri_06	Thu_05			

2,047 Items found, displaying 1 to 25. [First/Prev] 1, 2, 3, 4, 5, 6, 7, 8 [Next/Last]

Current selection: All/All/All/2026-03-08/* Current date 2026-03-11 10:49:56

Err	Host	Sched. Time	Start Time	Finish Time	Target	TS	%	Mbits/s	Status	Prior	Actions	Sel
✓	[not-transferred]	10 Mar 22:17:48	[n/a]	[n/a]	TND030818000314180080	144	0	[n/a]	StandBy	20	🟢🟡🔴	👤
✓	[not-transferred]	10 Mar 22:17:06	[n/a]	[n/a]	TND030818000314150080	141	0	[n/a]	StandBy	20	🟢🟡🔴	👤
✓	[not-transferred]	10 Mar 22:16:59	[n/a]	[n/a]	TND030818000314120080	138	0	[n/a]	StandBy	20	🟢🟡🔴	👤
✓	[not-transferred]	10 Mar 22:16:48	[n/a]	[n/a]	T3D030818000312120080	90	0	[n/a]	StandBy	20	🟢🟡🔴	👤
✓	[not-transferred]	10 Mar 22:16:36	[n/a]	[n/a]	TND030818000314030080	129	0	[n/a]	StandBy	20	🟢🟡🔴	👤

Testing of the AIFS single V2 and AIFS ENS V2 data

Basic, Bronze, Research users

- Complete the [RCP 50r1 - Test System User Details](#) form
- Data Support will contact you and set up the test for you
- Once all looks good, let us know

Test data are **strictly for non-operational use**. Test products are intended for internal testing and validation only and must not be used in operational services or shared on social media.

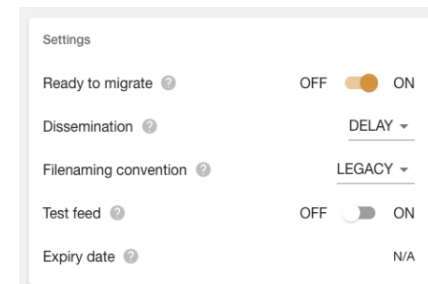
Silver, Gold and MS/CS users

- You can access the test systems yourself:

TPREd: <https://products.ecmwf.int/esuite/requirements/>

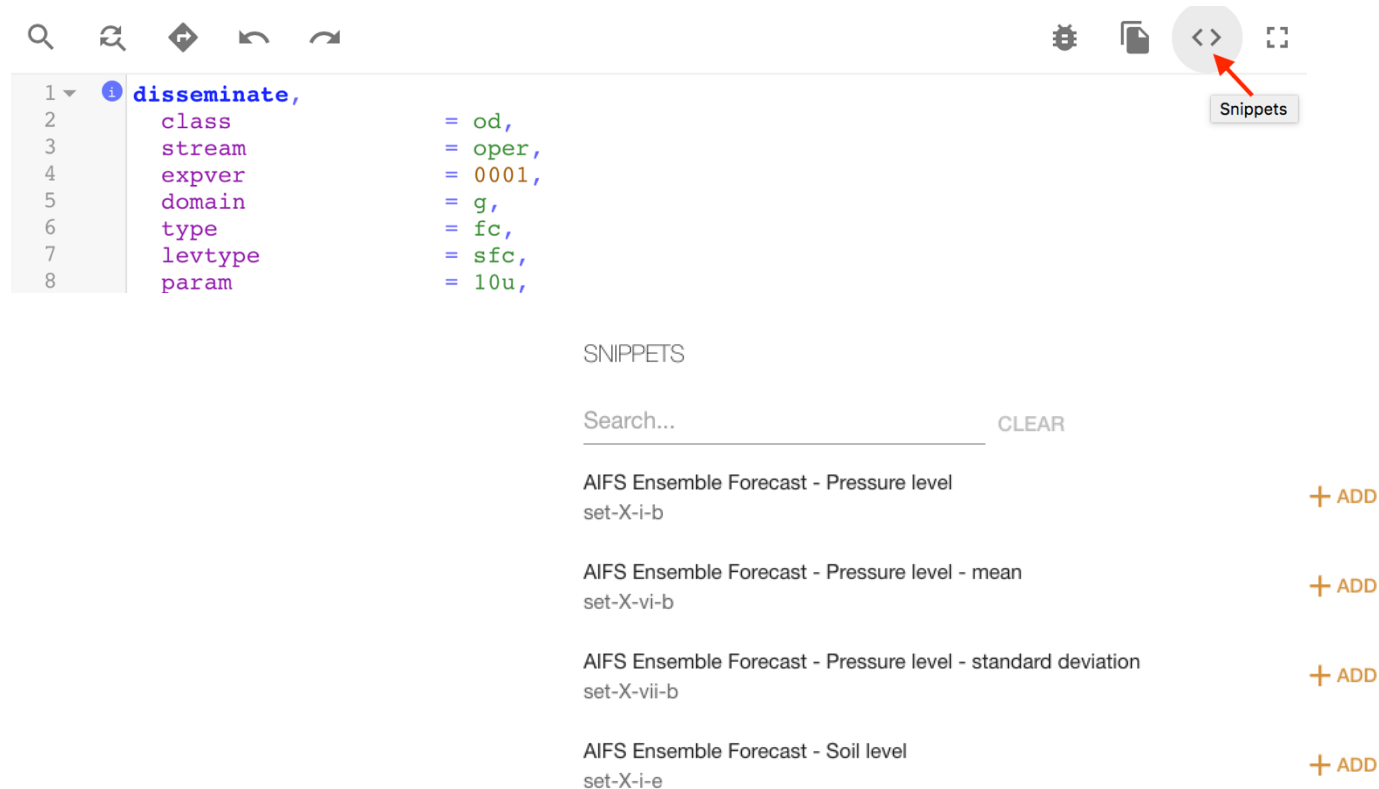
XDISS: <https://xdiss-monitor.ecmwf.int>

- All data requirements in the test PREd (TPREd) have already been adjusted to ensure compatibility with the Cycle 50r1 and AIFS Single V2 and AIFS ENS V2 data
- Once satisfied, toggle the 'Ready to migrate' button



Installing data in TPRED

- We recommend using the snippets to install data.
- The snippets have been updated for IFS 50r1 and AIFS Single V2 and AIFS ENS V2



The image shows a code editor interface. At the top, there is a toolbar with icons for search, refresh, save, undo, redo, and a code editor icon. Below the toolbar, a code editor window displays a snippet for 'disseminate' with the following content:

```
1 disseminate,  
2 class = od,  
3 stream = oper,  
4 expver = 0001,  
5 domain = g,  
6 type = fc,  
7 levtype = sfc,  
8 param = 10u,
```

Below the code editor, there is a section titled 'SNIPPETS'. It features a search bar with the text 'Search...' and a 'CLEAR' button. Below the search bar, there is a list of four snippets, each with a '+ ADD' button to its right:

- AIFS Ensemble Forecast - Pressure level
set-X-i-b + ADD
- AIFS Ensemble Forecast - Pressure level - mean
set-X-vi-b + ADD
- AIFS Ensemble Forecast - Pressure level - standard deviation
set-X-vii-b + ADD
- AIFS Ensemble Forecast - Soil level
set-X-i-e + ADD

Priority of AIFS data will be changing

- Currently, AIFS data are preferentially disseminated after IFS data.
- With this cycle upgrade, the priorities of AIFS are aligned with the IFS products.
- You can manually adjust these priorities in TPRED, using the 'priority=' keyword.

Dataset	Default priority
AIFS Single	90
AIFS ENS	90



Dataset	Default priority
AIFS Single (oper)	20
AIFS Single (wave)	30
AIFS ENS (enfo)	40
AIFS ENS (waef)	50

File naming and experiment version number

- The file naming convention for AIFS data always follows the 'ECMWF' file naming convention

Destination	Feed	ModelName	Class	Stream	Type	BasedDate (YearMonthDayTHourMinuteSecondsZ)	ValidDate (YearMonthDayTHourMinuteSecondsZ)	Step	Experiment (Optional)
abc	a1	aifs-ens	ai	enfo	pf	20250725T000000Z	20250808T180000Z	354	
abc_a1_aifs-ens_ai_enfo_pf_20250725T000000Z_20250808T180000Z_354h									

- There will be two new stream/type combinations: wave_fc for AIFS Single V1 and waef_cf/pf for AIFS ENS V2.
- The experiment version number for AIFS Single V2 and AIFS ENS V2 is 105 during Release Candidate Phase. **On the cycle implementation date, AIFS Single V2 data and AIFS ENS V2 data will be under expver 0001.**

Data	Experiment version number
Operational IFS and AIFS data	0001
IFS Cycle 50r1 data	0080
AIFS Single V2 and AIFS ENS V2	0105

Data retention and automatic delivery of test data

- We keep the test files on the test ECPDS for a period of **5 days**
- Extending the lifetime of the files on the test ECPDS will **not** extend the retention time
- You can put the data on the test PREd in '**normal**' mode
- In 'normal' mode, the data will be disseminated between operational windows. There is no fixed delivery schedule and **delays of up to one or two days are possible**
- Putting your data in '**pre-schedule mode**' will not make the test data come earlier

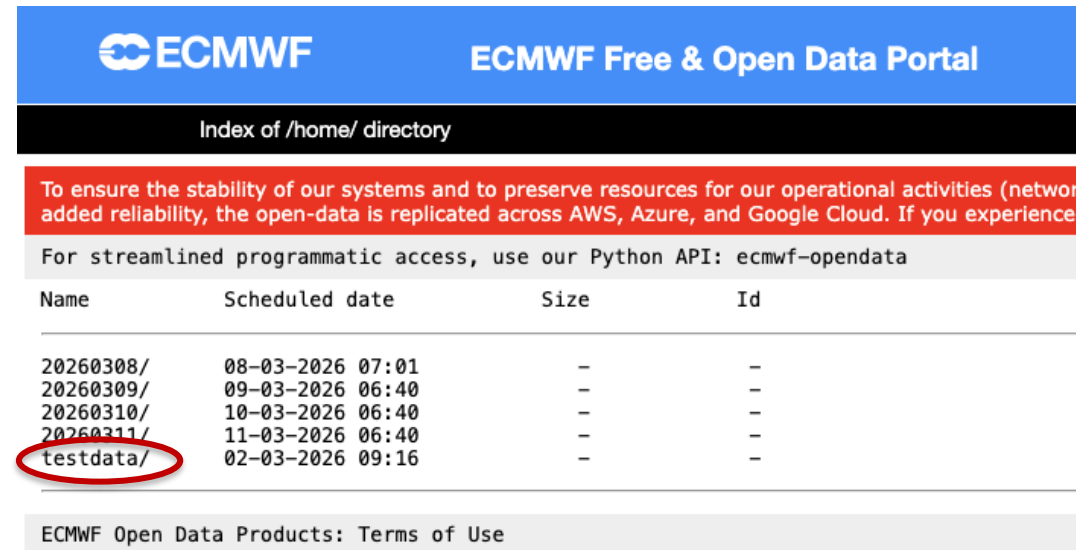
AIFS Single V2 data and AIFS ENS V2 in MARS Archive

- AIFS Single V2 data and AIFS ENS V2 data will become available in MARS Archive
- The experiment version (expver) will be 105

On the cycle implementation date, AIFS Single V2 data and AIFS ENS V2 data will be under expver 0001

AIFS Single V2 data and AIFS ENS V2 in Open Data

- RCP test data will soon be also available as free and open data at the ECMWF Free & Open Data Portal



The screenshot shows the ECMWF Free & Open Data Portal interface. At the top, there is a blue header with the ECMWF logo and the text "ECMWF Free & Open Data Portal". Below this is a black bar with the text "Index of /home/ directory". A red banner contains a notice: "To ensure the stability of our systems and to preserve resources for our operational activities (network added reliability, the open-data is replicated across AWS, Azure, and Google Cloud. If you experience". Below the banner, there is a link: "For streamlined programmatic access, use our Python API: ecmwf-opendata". The main content is a table with four columns: "Name", "Scheduled date", "Size", and "Id". The table lists several data directories, with "testdata/" circled in red. At the bottom, there is a link: "ECMWF Open Data Products: Terms of Use".

Name	Scheduled date	Size	Id
20260308/	08-03-2026 07:01	-	-
20260309/	09-03-2026 06:40	-	-
20260310/	10-03-2026 06:40	-	-
20260311/	11-03-2026 06:40	-	-
testdata/	02-03-2026 09:16	-	-

AIFS Single V2 data and AIFS ENS V2 on opencharts/ecCharts

- AIFS Single V2 and AIFS ENS V2 data meteograms will be available on opencharts
- Forecast charts and meteograms will be available on ecCharts: <https://eccharts.ecmwf.int/>

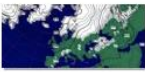



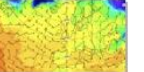
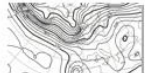

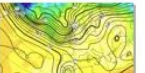
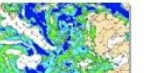

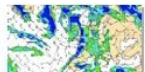
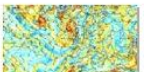
Product select

Select from these ECMWF Products to add to your personal list

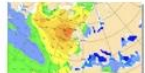
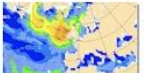


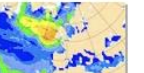
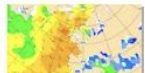
Filter

33 matching items

High resolution forecast (HRES)

 Snow coverage as percentage of a grid	 Mean sea level pressure and 10m	 Mean sea level pressure and 200	 Total precipitation	 30 m wind / 2m temperature
 Geopotential height at 500 hPa	 Cloud cover	 850 hPa temperature and 500 hPa	 850 hPa relative humidity and wind	 700 hPa divergence and wind
 700 hPa relative humidity and wind	 700 hPa relative vorticity and wind			

HRES - wave forecast

 Significant wave height and mean	 Significant height and direction of wind	 Significant height and direction of total	 Mean wave period and direction	 Mean period and direction of wind
 Mean period and direction of total				

6. How to get support



Information channels

IFS & AIFS upgrades Mailing list – to join send **subscribe** to forecast_changes-request@lists.ecmwf.int

ECMWF User Forum - <https://forum.ecmwf.int/>



ECMWF Users LinkedIn Channel <https://www.linkedin.com/showcase/ecmwf-users/>

Implementation pages:

- [IFS Cycle 50r1](#)
- [AIFS Single v2](#)
- [AIFS ENS v2](#)



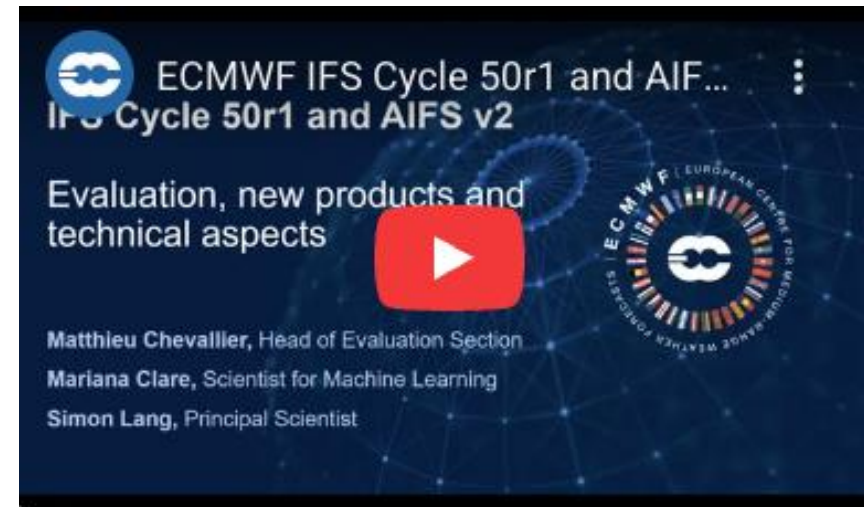
Information channels

IFS model upgrades YouTube playlist:

https://youtube.com/playlist?list=PLwv2rZ5UPWUHN0eVBsR4A3h6w_GkpnEEI&si=jWeI6SBjzidQP3M

AIFS model upgrades YouTube playlist:

https://youtube.com/playlist?list=PLwv2rZ5UPWUEMJ_IDBdaU-79y2wLv4Al-&si=Nk4MZn43Q3uiJ7aN



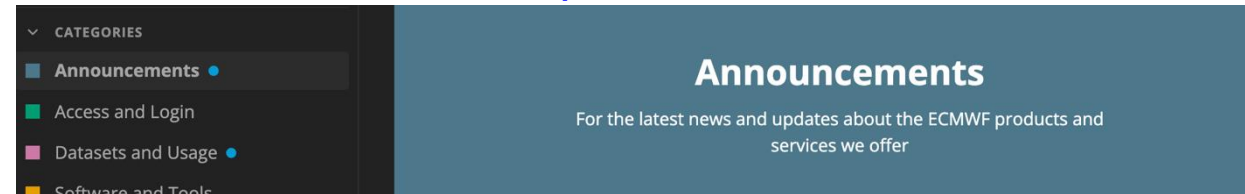
Subscribe! <https://www.youtube.com/@ecmwf>

Support & feedback

ECMWF Support Portal - <https://confluence.ecmwf.int/site/support>



ECMWF User Forum - <https://forum.ecmwf.int/>



**Thank you
for your attention!**



#IFS50r1 #AIFSv2 #newfcsystem @ECMWF