ENSEMBLES and TFSP (Task Force on Seasonal Prediction)

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Major topics

- **Which fields to output**
  - TFSP list
  - ENSEMBLES list
  - ECMWF multi-model list
- **Data, metadata and distribution**
  - TFSP data sub-committee draft
  - ENSEMBLES prototype
- **WCRP Workshop on Seasonal Prediction, 2007**
  - Are aiming to have jointly with ENSEMBLES meeting

Atmosphere – discrepancies wrt TFSP

TFSP requirement	ENSEMBLES	ECMWF operations (S3)	
Geopotential ht	Geopotential	Geopotential	
850/500/200/100/50/10	850/500/200/50	850/500/200/100/50/10	
2m Tmax/min (true)	Based on 6h values	2m Tmax/min (true)	
Snow depth	Water equiv. only	Water equiv. only	
Snow water equiv.		(snow density is poss)	
Land skin T	No	No (but could be)	
Sfc momentum flux	No	Yes	
Soil heat flux	Net sfc heat flux	Net sfc heat flux	
6h cloud, 10m u/v,2m T/Q	24h values, but means use 6h values, inc mslp.	6h values, inc for mslp.	

Ocean – discrepancies wrt TFSP

- **Monthly output**
  - ENSEMBLES – all requests met (full 3-d fields of T,S,u,v and w)
  - ECMWF – expect to give 3d fields in top 1000m
- **Daily output at 00 GMT**
  - ENSEMBLES – no daily output
  - ECMWF – as per TFSP (vertical section at 0, 2N, 2S)
- **6h output:**
  - ECMWF – SST, MLD, fluxes only at 24h (24h coupling interval)
  - Note: With fluxes every 24h, total ocean data = 1.5 Tb for S3 hindcasts; for 6h fluxes this would be 3.1 Tb.

TFSP data sub-committee

- **Draft document produced**
  - Coordinated with ENSEMBLES implementation
  - Defines metadata, both definitional and descriptive
  - Outlines a netCDF implementation
  - Discusses other issues, including links to work by others
- **Limited feedback so far, no major complaints**
  - Maybe we should define a GRIB2 implementation of the same metadata
- **ENSEMBLES data at ECMWF is a ‘prototype’**

Data gridding

- **Original grid or common grid?**
  - Serving the data on a common grid helps most users a lot …
  - Original grid is the best way to maximise quality, though.

- **DEMETER/ENSEMBLES:**
  - 2.5x2.5 deg for atmos (87.5S to 87.5 N) inc point at equator
  - 1x1 deg for ocean (89S to 89N) inc point at equator
  - specified vertical levels following Levitus

Physical distribution plans

- **ECMWF will serve ENSEMBLES data**
  - (and operational multi-model data, probably)
  - Will use a THREDDS aggregation server
- **IRI has some SMIP-2 data**
  - Not with the proposed metadata, though
- **COLA has some SMIP-2 data**
  - Again, no metadata
- **APCC plans to serve data??**

Workshop next year

- **TFSP want a kick-off workshop**
  - Aim is to examine existing datasets (DEMETER, SMIP-2, ENSEMBLES stream 1)
  - All WCRP projects will be entrained (GEWEX, CLIVAR, SPARC, CLiC etc)
- **May or June 2007**
- **Coincident with ENSEMBLES meeting would help ensure large European participation**
- **Madrid, Barcelona and possibly Geneva are candidates so far**