

Status of ALADIN operational activities at SHMU (IX/2020 - III/2021)

The operational ALADIN version is based on CY43t2_bf11, 4.5 km/63levels, ALARO-1vB physics. Its upgrade to CY43t2_bf11 took place on 11/01/2021. In parallel, an experimental convection-resolving configuration ALARO-1vB 2 km/L87 is running over a smaller domain.

The A-LAEF operational suite at ECMWF is running under the supervision of SHMU staff.

Table 1: The setup of ALADIN systems run at or by SHMU.

<i>label</i>	ALADIN/SHMU	ALARO 2 km	A-LAEF
<i>CMC</i>	ALARO	ALARO	ALARO
<i>status</i>	operational	experimental	operational
<i>code version</i>	CY43T2bf11	CY43T2bf11	CY40t1bf06
<i>physics</i>	ALARO-1vB	ALARO-1vB	ALARO-1 multi-physics + surface stochastic physics (SPPT)
<i>dx</i>	4.5 km	2.0 km	4.8 km
<i>points</i>	625 x 576	512 x 384	1250 x 750
<i>vertical levels</i>	63	87	60
<i>tstep</i>	180 s	120 s	180 s
<i>forecast ranges</i>	78/72/72/60 (a' 1h)	78/72/72/60 (a' 1h)	72/72 (00 and 12 UTC, a' 1h)
<i>coupling model & LBC frequency</i>	ARPEGE (long- & short cut off), 3h	ARPEGE short cut-off, 3h	ECMWF EPS, 16+1 members, 6h
<i>upper air assimilation</i>	spectral blending by DFI	downscaling	spectral blending by DFI
<i>surface assimilation</i>	CANARI OI	none	ESDA based on CANARI OI
<i>initialization</i>	no initialization	DFI	no initialization
<i>HW</i>	HPC2	HPC1	ECMWF HPCS

Table 2: SHMU HPCS

<i>label</i>	HPC2 (main operational)	HPC1	soon to come
<i>HPC</i>	IBM Flex System p460	IBM p755 running with IBM Flex System p460	NEC HPC1804Ri 2
<i>nodes</i>	12	8	240
<i>SW</i>	Red Hat Enterprise Linux	Gentoo 4.4.111 Linux	Linux
<i>compiler</i>	gfortran 4.9.3	gfortran 9.3.0	Intel FORTRAN Compiler
	shared file system and load leveler queueing system		LUSTRE FS, SLURM queueing system
<i>archiving</i>	IBM TS3310 Tape Library, 5 PB		