

**STATUS OF RSMCs AND NMCs RELATIVE TO NUMERICAL MODELS (2005, 2006 or 2007 information)** (last update 20/11/07)

GM = Global Model

LAM = Limited Area Model

Perturbation technique for ensemble prediction systems: SV = Singular Vectors, BGM = Breeding of Growing Modes, LAF = Lagged Average Forecasts, StoP = Stochastic Physics, OP = Observation Perturbations, ETKF = Ensemble Transform Kalman Filter

**REGION I**

<i>CENTRE</i>	<i>STATUS</i>	<i>MODELS</i>	<i>RESOL.</i>	<i>LEVELS</i>	<i>RANGE</i>	<i>Boundary</i>	<i>DISSEMINATION</i>		
							<i>GTS</i>	<i>SAT.</i>	<i>SPECIAL</i>
<b>DAR ES SALAM</b>	NMC	LAM (WRF)				GFS (NCEP)			
		LAM (HRM)				GME (DWD)			
<b>GABORONE</b>	NMC	LAM (WRF)				GFS (NCEP)			
		LAM (HRM)				GME (DWD)			
<b>MAPUTO</b>	NMC	LAM (RAMS)				(from Brazil)			
		LAM (HRM)				GME (DWD)			
<b>ACMAD</b>	Special Centre	access to GM							special
<b>HARARE</b>	Special Centre	Draught monitoring							special
<b>LA REUNION</b>	Tropical Cyclone (T.C.) RSMC	full access to GM					GTS	SAT	special
		full access to LAM (ALADIN)	10 km						
<b>ALGIERS</b>	Geographical RSMC	LAM (ETA)	36 km	24	72 h	GFS (NCEP)			
		LAM (ALADIN)	12 km	41	48 h	ARPEGE			
<b>CAIRO</b>	Geo. RSMC	LAM (ETA)	33 km	36	120 h	GFS (NCEP)			
		LAM nested non-hydro. (MM5)	63, 21 and 7 km	36	48 h	GFS (NCEP)			
<b>CASABLANCA</b>	Geo. RSMC	LAM (ALADIN-NORAF)	31 km	37	72 h	ARPEGE (France)	GTS		special
		LAM (ALADIN/ALBACHIR) 3D-VAR	16 km	37	72 h	ALADIN-NORAF			
<b>DAKAR</b>	Geo. RSMC	LAM (ETA)	22 km	50	72 h	COLA, USA)	GTS		
		LAM (HRM)	22 km	40	72 h	GME (DWD)			
<b>NAIROBI</b>	Geo. RSMC	access to GM					GTS		
		LAM (HRM)	28 km	40	24 h	GME (DWD)			
		LAM (WRF)				GFS (NCEP)			
<b>PRETORIA</b>	Geo. RSMC	LAM (UM)	12 km	38	48 h	GM(UM) UKMO	GTS	Fax	
		GM (ECHAM) Ens. 12 members LAF	T42	L19	6 month				
<b>TUNIS</b>	Geo. RSMC	LAM (ALADIN)	12.5 km	L41	48 h	ARPEGE (France)			

## REGION II

<i>CENTRE</i>	<i>STATUS</i>	<i>MODELS</i>	<i>RESOL.</i>	<i>LEVELS</i>	<i>RANGE</i>	<i>Boundary</i>	<i>DISSEMINATION</i>		
							<i>GTS</i>	<i>SAT.</i>	<i>SPECIAL</i>
<b>ABU DHABI</b>	NMC	LAM (NCEP-ETA)	0.3°	42	72 h	GFS (NCEP)			
		LAM (NCEP-ETA-non-hydrostatic)	0.09°	42	72 h	GFS (NCEP)			
		LAM (HRM)				GME (DWD)			
<b>BANGKOK</b>	NMC	GM (Unified UKMO)	100 km	19	168 h				
		LAM (South East Asia)	48 km	19	72 h	GM			
		LAM (Thailand Model)	17 km	31	48 h	SE Asia			
		WRF	?	?	?	GFS (NCEP)			
<b>HANOI</b>	NMC	LAM (ETA)	22 km	?	48 h				
		LAM (HRM)	14 km	31	48 h	GFS (NCEP)			
<b>HONG-KONG</b>	NMC	LAM-(ORSM) 3 D-VAR	60 km	36	72 h	GSM (Japan-JMA)			
		MPI-ORSM 4D-VAR	20 km	40	42 h	GSM (Japan-JMA)			
		NHM – non-hydrostatic – Wind RADAR data assimilated	5 km	45	12 h	LAM (ORSM)			
<b>KARACHI</b>	NMCs	LAM (HRM)	28 km	40	72 h	GME (DWD)			
<b>MACAO</b>	NMC	LAM	54/18 km	22	60 h				
<b>MUSCAT</b>	NMC	LAM (ORM28)	28 km	40	78 h	GME (Offenbach)			
		LAM (ORM07)	7 km	40	78 h	GME (Offenbach)			
<b>PYONGYANG</b>	NMC	Hemispheric Model (HM)	T42	14	96 h				
		LAM –Regional Spectral Model	100 km	14	48 h				
		LAM	50 km	18	24 h				
<b>SEOUL</b>	NMC	GM (GDAPS) 3D-VAR	T426	L40	240 h				
		LAM (RDAPS)	30 km	33	66 h	GDAPS			
		LAM (RDAPS nested) non- Hydrostatic	10 km	33	24 h	RDAPS			
		LAM (RDAPS nested) non- Hydrostatic	5 km	33	24 h	RDAPS			
		Typhoon (DBAR)	0.356 °	1	72 h	GDAPS			
		GM (GBEPS) Ens. 32 (2x16 members, BGM)- LAF	T213	L40	10 days				
		GM GDAPS Ens. 20 members, BGM, 2 tier system	T106	L21	1 month, 3 months 6 months				
<b>TEHRAN</b>	NMC	LAM (MM5)	30 km	23	102 h				
<b>ULAANBATAR</b>	NMC	LAM (MM5)	80 km	35	48 h				

<b>NCMRWF -INDIA</b>	Special Centre	GM	T80	L18	5 days			
		LAM	50 km	18	5 days			
<b>BELJING</b>	Geo. and Transport Model (T.M.) RSMC	GM (3 D-VAR)	T639	L60	10 days		GTS	SAT
		LAM-(GRAPES)	30 km	31	48 h	GM		
		GM-(MTPP). Typhoon Track	T213	L31	120 h			
		LAM (NMC-MM5) nested, D.A. = nudging method, non-hydrostatic?	27/9/3 km	36	48 h			
		LAM Ens. 15 members, BGM	35 km	35	36 h			
		GM Ens. 15 members BGM	T213	L31	10 days			
		AGCM/OGCM	T106	L19	30 days			
		GM DERF Ens. 40 members 16 SV, 16 LAF coupled, Ocean	T63 GT63	L16 L30	1 month			
		GM Ens. 48 members LAF coupled 8 atmo x 6 oceano cond.(perturb ocean) Ocean	T63 GT63	L16 L30	Season			
<b>JEDDAH</b>	Geo. RSMC	LAM (HRM)	48 km	48	48 h	GME (DWD)		
<b>KHABAROVSK</b>	Geo. RSMC	LAM	50 km	15	48 h			
<b>NOVOSIBIRSK</b>	Geo. RSMC	LAM (Sib- SRHMS)	50 km	15	48 h			
<b>TASHKENT</b>	Geo. RSMC							
<b>NEW DELHI</b>	Geo. and T.C. RSMC	full access to GM (NCMRWF)					GTS	
		LAM (LAFS) 3-DVAR	0.75°	16	48 h	NCMRWF		
		For TC: Quasi-Lagrangian model 3 D-VAR	40 km	16	36 h			
<b>TOKYO</b>	Geo.- T.M. and T.C. RSMC	GM (GSM0305) 4D-VAR	T319	40	216 h		GTS	special
		LAM (RSM0404) 4D-VAR	20 km	40	51 h	GSM		
		LAM (MSM0603) 4 D-VAR, non-hydrostatic	5 km	50	15 h	RSM		
		GM Ens. 51 members BGM	T159	40	9 days			
		GM Ens. 50 members 25 BGM and 25 members LAF on 2 days	T106	40	34 days			
		GM Ens. 51 members, SV, 2 tiers for SST	T63	40	4 months			
		GM Coupled (AGCM/OGCM) Ens. 31 members, SV	T42	40	18 months			
		Typhoon (TYM0306)	24 km	25	84 h	GSM		

## REGION III

<i>CENTRE</i>	<i>STATUS</i>	<i>MODELS</i>	<i>RESOL.</i>	<i>LEVELS</i>	<i>RANGE</i>	<i>Boundary</i>	<i>DISSEMINATION</i>		
							<i>GTS</i>	<i>SAT.</i>	<i>SPECIAL</i>
<b>BOGOTA</b>	NMC	LAM (MM5)	25 km						
<b>LIMA</b>	NMC	LAM (ETA)	48 km	36	120 h	GFS (NCEP)			
		LAM (ETA-SENAMHI))	25 km	38	120 h	GFS (NCEP)			
		CCM3 En. 12 members, SST (forecast by NCEP and perturbed)	T42	L32	9 months	SST, USA			
<b>QUITO</b>	NMC	LAM (MM5)	25 km						
<b>SANTIAGO</b>	NMC	LAM (MM5)	60 km		60 h	GFS (NCEP)			
		LAM (MM5)	20 km						
<b>INPE/CPTEC -SAO PAULO</b>	Special Centre	GM AGCM CPTEC/COLA	T170	42	15 days	GFS (NCEP)			Special
		GM AGCM Ens, 15 members (Random OP)	T126	L28	15 days	GFS (NCEP)			
		LAM (ETA)	40 km	38	120 h	GFS (NCEP)			
		GM Coupled, Ens. 30 members (Random OP)) Fixed and predicted SST	T62	28	Six months	GFS (NCEP)			
<b>BRASILIA</b>	Geo. RSMC	full access to GM					GTS		
		LAM (MBAR-HRM)	25 km	35	48 h	GME (Germany)			
<b>BUENOS AIRES</b>	Geo. RSMC	LAM (ETA SMN)	25 km	38	132 h	GFS (NCEP)	GTS		

## REGION IV

<i>CENTRE</i>	<i>STATUS</i>	<i>MODELS</i>	<i>RESOL.</i>	<i>LEV</i>	<i>RANGE</i>	<i>Boundary</i>	<i>DISSEMINATION</i>		
							<i>GTS</i>	<i>SAT.</i>	<i>SPECIAL</i>
<b>SAN JOSE</b>	NMC	LAM (ETA)	10 km		36 h	GFS (NCEP)			
		MM5				GFS			
<b>IRI (USA)</b>	Special Centre	Ens. multi-models, over 30 members, LAF			6 months				
<b>MEXICO</b>	NMC	LAM (MM5) non-hydrostatic	45km	20?	72 h	GFS			
<b>MONTREAL</b>	Geo. and T.M. RSMC	GM (GEM) 4D-VAR	33 km	58	240 h and 360 h		GTS		
		GM Ens. 16 members (Random OP, 96 ETKF analyses and two models running on 8 members)	T149 and 1.2 deg.	28	360 h				

		GM (GEM Regional) 3-D VAR	Variable mesh 0.22° (~ 15 km)	58	48 h				
		LAM (HIMAP)	10 km	35	30 h				
		GM Ens. 40 members (24 h LAF, four models)	1.875° T32	50 10	9 months				
<b>MIAMI</b>	Geo. and T.C. RSMC	full access to GM and LAM						SAT	
		HCN (hurricane)	0.16°	18	72 h				
<b>WASHINGTON</b>	WMC/ Geo. and T.M. RSMC	GFS (3D-VAR)	T382	64	84 h		GTS	ISCS (WAFS)	Special
			T170	42	84 to 180 h				
			T126	28	180 to 384 h				
		LAM (RUC)	40 km	40	12 h	GFS			
		LAM (NGM)	90 km	16	48 h	GFS			
		LAM (NAM) 3D-VAR (Meso-ETA) over Alaska	60 km	60	84 h	GFS			
		LAM ((HiRes) 3D-VAR (Meso-ETA)	12 km	35	48 h	GFS			
		LAM ((HiResM) 3D-VAR (Meso-ETA) over some regions	5.1 km	35	48 h	GFS			
		Hurricane	0.5 deg.	42	120 h	GFS			
		Regional Ens. 15 members (10 ETA +5 RSM) (SREF) (North America) (BGM)	48 km	60	63 h				
		Global Ens. 20 members (GFS)	T126 T62	28	84 h 85 h to 16 days				
		Ens. 20 members, (GFS) coupled, Modular Ocean Model ,MOM 3, LAF	T62 1/3-1deg.	64 40	7 months				

## REGION V

<i>CENTRE</i>	<i>STATUS</i>	<i>MODELS</i>	<i>RESOL.</i>	<i>LEV.</i>	<i>RANGE</i>	<i>Boundary</i>	<i>DISSEMINATION</i>		
							<i>GTS</i>	<i>SAT.</i>	<i>SPECIAL</i>
<b>JAKARTA</b>	NMC	LAM (MM5) non-hydrostatic	50km, 30km, 5- 10 km	23	72 h	GFS (NCEP)			
<b>KUALA-LUMPUR</b>	NMC	LAM (MM5-RAPS)	36 km	23	72 h	CMA			
			12 km	23	72 h				
<b>MANILA</b>	NMC	LAM (MM5)	20 km	36	72 h	GFS (NCEP)			
		LAM(HRM)	?	?	?	GME(DWD)			
<b>SINGAPORE</b>	NMC and ASEAN Specialised Meteorological Centre (ASMC)	GSM	1.875°	16	240 h				special
		LAM (FLM)	127 km	12	72 h	GSM			
		LAM (VFM)	63.5 km	13	72 h	GSM			
<b>DARWIN</b>	Geo. RSMC	full access to GM							
		LAM-(TLAPS)	0.375°	19	48 h		GTS	SAT	special
<b>NADI</b>	T.C. RSMC	Access to GM					GTS		
<b>WELLINGTON</b>	Geo. RSMC	LAM		8	h				
<b>MELBOURNE</b>	WMC, Geo. and T.M. RSMC	GM (GASP) OI-1D-VAR	T239	33	240 h		GTS	SAT	special
		LAM (LAPS)	0.375°	29	72 h	GASP			
		LAM (TX-LAPS)	0.375°	29	72 h	GASP			
		LAM (MESO-LAPS)	0.125°	29	36 h	LAPS			
		LAM (5 domains in South)	0.05°	29	36 h	LAPS			
		TC-LAPS	0.15°	29	72 h	GASP			
		Ens. GM, GASP -EPS, 33 members, SV (GASP-EPS)	T119	19	10 days				
		Ens. 30 members, GM coupled (POAMA), LAF	T47	17	10 months				

## REGION VI

<i>CENTRE</i>	<i>STATUS</i>	<i>MODELS</i>	<i>RESOL.</i>	<i>LEVELS</i>	<i>RANGE</i>	<i>Boundary</i>	<i>DISSEMINATION</i>		
							<i>GTS</i>	<i>SAT.</i>	<i>SPECIAL</i>
<b>ANKARA</b>	NMC	full access to GM (ECMWF)							
		MM5V3	21 km	32	48 h				
		MM5V3	7 km	32	48 h	Nested			
<b>ATHENS</b>	NMC	full access to GM (ECMWF)							
		LAM (ETA-NMC) nudging	0.1°	32	72 h	ECMWF			
		LAM (LM) non hydros..	0.0625	40	48 h	GME			
		LAM (RAMS) nested, non hydros.	48 km, 12 km, 3 km°	32	36 h	ECMWF			
<b>BELGRADE</b>	NMC	LAM-(ETA 95) 3D-VAR	52 km	32	120 h	GME (Offenbach)			
		LAM (ETA)	18 km	64	48 h	ECMWF			
<b>BET DAGAN</b>	NMC	LAM (HRM)	13 km	38	78 h	GME (Offenbach)			
<b>BRATISLAVA</b>	NMC	LAM (ALADIN/ SLOVAKIA)	9 km	37	54 h	ARPEGE			
<b>BRUSSELS</b>	NMC	full access to GM (ECMWF)							
		LAM (ALADIN)				ALADIN (France)			
<b>BUCAREST</b>	NMC	LAM (HRM)	20 km	20	78 h	GME (Offenbach)			
		LAM (MM5)	15 km	25	24 h	GFS (USA)			
		LAM (ALADIN)	10 km	41	48 h	ARPEGE (France)			
<b>BUDAPEST</b>	NMC	LAM (ALADIN/HU) – 3 D-VAR	8 km	49	48 h	ARPEGE (Toulouse)			
<b>COPENHAGEN</b>	NMC	full access to GM (ECMWF)							
		LAM (DMI-HIRLAM-T15) 3D-VAR	0.15°	40	60 h	ECMWF			
		LAM (DMI-HIRLAM-S05)	0.05°	40	54 h	T15			
<b>DE BILT</b>	NMC	full access to GM (ECMWF)							
		HIRLAM	0.5°	31	48 h				
<b>DUBLIN</b>	NMC	full access to GM (ECMWF)							
		LAM (HIRLAM) 3D-VAR	0.15°	31	48 h	ECMWF			
<b>HELSINKI</b>	NMC	full access to GM (ECMWF)							
		LAM (RCR-HIRLAM) *	0.2° (22 km) 3 D- VAR	40	54 h	ECMWF			
		LAM (MBE)	0.08° (9 km)	40	54 h	RCR			

<b>KIEV</b>	NMC	LAM							
<b>LISBOA</b>	NMC	LAM (ALADIN-Portugal)	12.7 km	31	48 h	ARPEGE- Meteo-France			
<b>LJUBLJANA</b>	NMC	LAM (ALADIN)	11.2 km	37	48 h	ALADIN/LA CE			
<b>MADRID</b>	NMC	full access to GM (ECMWF)							
		LAM (HIRLAM)	0.5°	31	48 h				
		LAM (HIRLAM)	0.2°	31	24 h				
		LAM (HRM)				GME (Offenbach)			
<b>MINSK</b>	NMC	LAM	75 km	15?	48 h	Moscow			
<b>NORRKOPING</b>	NMC	full access to GM (ECMWF)							
		LAM (HIRLAM) 3 D-VAR (C-22)	22 km	40	48 h				
		LAM (HIRLAM) E-11	11 km	60	48 h	C-22			
		LAM (HIRLAM) F-05	5 km	60	48 h	E-11			
<b>OSLO</b>	NMC	full access to GM (ECMWF)							
		LAM (HIRLAM)	0.5°	31	48 h				
		LAM (HIRLAM)	0.1°	31	48 h				
<b>PRAGUE</b>	NMC	LAM (ALADIN)	9 km	43	54 h	ARPEGE-			
<b>RIGA</b>	NMC	LAM (HIRLAM 2)	55 km	16	36 h				
<b>SKOPJE</b>	NMC	LAM (NMM) non-hydrostatic				GSM NCEP			
<b>SOFIA</b>	NMC	LAM (HRM)	9 km	31	48 h	GME (Offenbach)			
		LAM (ALADIN)	12 km	41	48 h	ARPEGE			
<b>VIENNA</b>	NMC	LAM (ALADIN-AUSTRIA)	9.6 km	45	72 h	ARPEGE-			
		Ens. 22 members LAM ALADIN- LAEF – SV	18 km	37	54 h	ECMWF-EPS			
<b>WARSAW</b>	NMC	LAM (COSMO-LM)	14 km	35	78 h	ECMWF			
		LAM (ALADIN)	13.5 km	31	48 h	ARPEGE-			
<b>ZAGREB</b>	NMC	LAM (ALADIN)	8km	37	54 h	ARPEGE-			
		LAM (ALADIN)	2km	37	54 h	ARPEGE-			
<b>ZURICH</b>	NMC	full access to GM (ECMWF)							
		LAM (LM – COSMO consortium) non-hydrostatic, nudging	7 km	45	72 h	IFS (ECMWF-BC)			
<b>ECMWF</b>	RSMC for Medium- Range	GM (IFS) 4D-VAR	T799 (about 25 km)	91	240 h		GTS		special
		GM (IFS) Ens.- 50 members SV+StoP	T399 T255	62 62	240 h 10 to 15 days				special



		GM (IFS) Ens. 50 members SV+StoP, coupled with HOPE (Hambourg Ocean Primitive Equation) , 5 ocean OI analyses with SST perturbation	T159  zonal resol. 1.4 deg.	62  29	10 days to 1 month				special
		GM (IFS) Ens. 41 members OP+StoP, coupled with HOPE , 5 OI ocean analyses with SST perturbation	T159 Zonal resol. 1.4 deg	62  29	7months  4 times a year 13 months		GTS, SST available in GRIB 2		special
<b>OBNINSK</b>	T.M. RSMC (for RA II)	full access to GM – HM and LAM							
<b>TOULOUSE</b>	T.M. RSMC	GM (ARPEGE) (4 D-VAR)	Variable mesh T358C2. 4 23 km to 133 km	46	102 h			SAT- RETIM	special
		GM (ARPEGE-Tropics- Indian Ocean)	T358	41	72 h				
		PEARP 11 members, SV on Atlantic and Western Europe	T358 var mesh 2.4	41	60 h	ARPEGE			
		LAM (ALADIN)	9 km	41	54 h	ARPEGE			
		LAM (ALADIN Trop. Cyclone- Indian Ocean))	31 km	41	72 h	ARPEGE			
		GM (ARPEGE-Climat) Ens. 10 members – LAF Coupled OPA8.2	T63	31	129 days				
		GM (ARPEGE-Climat) Ens. 41 members – LAF Coupled 8 atmos. X 5 ocean initial stes	T63	31	16 months				
<b>EXETER</b>	Geo. and T.M. RSMC	GM (Unified Model) 4D-VAR non- hydrostatic	40 km	50	144 h		GTS	SADIS (WAFS )	
		NAE -North Atlantic European 4 D- VAR	12 km	70	48 h	GM			
		LAM 4D-VAR non-hydrostatic Some RADAR data nudging	4 km	70	36 h	GM			
		Ens. 24 members GM, ETKF 2 stoc.physic	90 km	50	72h				
		Ens. (MOGREPS). 24 members.	24 km	70	36 h	GM. Ens.			
		GM Had CM3 Glosea Ens. 41 members, coupled, OI ocean, 40 random OP of SST	Atm. 2.5° Ocean: 1.25°	19  40	6 months				

<b>OFFENBACH</b>	Geo. RSMC	GM (GME) 3 D-VAR	40 km	40	174 h			DWD-SAT	special
		LAM (COSMO-E – nested in GME- non-hydrostatic) nudging	0.0625° (7 km)	40	78 h				
		COSMO-K	2.8 km	50	21 h				
<b>ROME</b>	Geo. RSMC	full access to GM (ECMWF)							
		LAM (EuroHRM 3 D-VAR)	28 km	31	72 h	BC ECMWF			
		LAM (EuroLM)	7 km	31	48 h	Euro-HRM			
		LAM (LAMI) non-hydrostatic (run in Bologna) nudging	7 km	35	72 h	GME (DWD)			
<b>MOSCOW</b>	WMC, Geo. RSMC	GSM 3D-OI	T85	31	240 h		GTS		
		LAM	75 km	30	48 h	GSM			
		LAM (non-hydrostatic)	10 km	15	36 h	LAM			
		GM Ens. 10 members, two-tier, OI ocean, Semi-Lagrangian AGCM..	1.125°/ 1.40625°	28	4 months				
<b>GROUP OF COUNTRIES</b>									
<b>(ALADIN consortium): Austria, Belgium, Bulgaria, Croatia, Czech Republic, Hungary, Morocco, Poland, Portugal, Romania, Slovakia, Slovenia, Tunisia</b>		LAM (ALADIN)	12 km	31	48 h	ARPEGE- Meteo- France			
<b>HIRLAM (High Resolution Limited Area Model): Denmark, Finland, Iceland, Ireland, The Netherlands, Norway, Spain and Sweden</b>		LAM (HIRLAM)				ECMWF			
<b>COSMO_LEPS: Germany, Greece, Italia, Poland, Romania, Switzerland</b>		LAM non-hydrostatic nested in ECMWF EPS model, 16 Ens. members. selected from 102 ECMWF ens. members	10 km	32	120 h				
<b>The German Lokal Modell (LM) is used operationally at the national meteorological services of Greece, Poland, Romania and Switzerland and at the Regional Meteorological Service in Bologna (Italy),</b>									
<b>The hydrostatic high-resolution regional model HRM of the DWD is being used at fifteen national/regional meteorological services, namely Brazil-INMET, Brazil-Navy, Bulgaria, China, Israel, Italy, Kenya, Oman, Pakistan, Philippines, Romania, Senegal, Spain, United Arab Emirates and Vietnam. For lateral boundary conditions, GME data are sent via the Internet to the HRM and LM users.</b>									

## - COMPUTERS USED FOR DATA PROCESSING AT RSMCs AND NMCs -

**REGION I**

<i>CENTRE</i>	<i>MAINFRAME (number cruncher)</i>	<i>SECONDARY COMPUTER(S)</i>	<i>WORK STATIONS</i>
ACMAD		INTEL based servers (AMEDIS system) – SUN SPARC	PCs
GABARONE		PC cluster	
HARARE			IBM PSs - PCs
ALGIERS		PC Pentium IV	30 PCs
CAIRO	IBM S/390	4 HP 750C	12 IBM PC 300 GL, 18 PC Pentium
CASABLANCA	IBM RS 6000 SP	SUNSPARK 1000	SGI - 3 DEC ALPHA - MOTOROLA
DAKAR			PCs
MAPUTO		HP wx 9300, Dell Precision 470n	
NAIROBI		PCs Pentium III, VAX3900 – VAX 11/750	SGI – PCs
LA REUNION			Work Stations
PRETORIA	NEC SX8	2 SGI Origin 200, 2 SGI Indigo – SUN Enterprise 3000	PCs
TUNIS	Super calculator	2 DELL Xeon, HP715/80, HP 755/80	

**REGION II**

<i>CENTRE</i>	<i>MAINFRAME (number cruncher)</i>	<i>SECONDARY COMPUTER(S)</i>	<i>WORK STATIONS</i>
ALMATY			PCs
BANGKOK	IBM RS/6000SP 12.96 GFlops	2 RS 6000 595	WKs
HANOI		PC Cluster	
HONG-KONG	IBP p630 cluster (16 processors) 76.8 GFlops, IBM p690 (20 processors) 88GFlops, IBM RS/6000 SP (44 processors) 66 GFlops	CRAY SV1-1A (16 processors), SGI Origin 2000, 2 SUN E450, 2 SGI O2	WSs
KARACHI		GRID RAK HP	PCs
OMAN	SUN E4500 12 processors and E4504 processors		
PYONGYANG		Pentium III	PC/AT – PS/2
SEOUL	CRAY X1E-3/192-L (15.75 TFlops), 2 CRAY X1-3/192-L (635 GFlops) NEC SX-5/28M2, SX-4/2A	HP V2500 (48PE)	SUN 2000
TEHRAN	2 PC Cluster Systems 8 and 32 Nodes	IBM 370 (2x 4381)	PCs
ULAANBATAR		PC Cluster System	MICRO VAX 3400
NCMRWF-INDIA	CRAY XMP/216		DEC Alpha WSs, SUN Ultra Sparc II WSs, SGI ORIGIN 200 and O2 WSs
BEIJING	IBM CLUSTER 1600 (20 TFLOPS) IBM SP RS6000 NH1	IBM SP2/32	WSs

	SP (71 GFLOPS)		
JEDDAH		CDC CYBER 962 – 2 CDC 910	3 SG – 4 VAX – 3 CDC
KHABAROVSK		XEON-2, COMPAREX, COMPLEX GIS Meteo	PC Pentium IV, PCs
NOVOSIBIRSK	CRAY EL	XEON-2	PCs
TASHKENT		HP 9000	PCs
NEW DELHI	CDC CYBER 2000U	SGI ORIGIN 200, 2CDC 4680	2 VAX 11/730, WS: 4 CYBER 910-485, VAX 3400, 5 Pentium II
TOKYO	HITACHI SR11000/K1 E1/80 nodes	3 HITACHI 8000	HITACHI

**REGION III**

<i>CENTRE</i>	<i>MAINFRAME (number cruncher)</i>	<i>SECONDARY COMPUTER(S)</i>	<i>WORK STATIONS</i>
LIMA	Clúster Beowulf 30 nodes, Pentium IV , IBM XP 1000	3 COMPAQ Alpha ES 40, 3 Alpha DS20, Alpha XP100	
SANTIAGO		HP E800	8 Sun Ultra 1/40
INPE(CPTEC - SAO PAULO)	NEC SX 6/32M4, NEC SX 4/8A	2 SUN 280 R, 1 SUN FIRE 6800	62 WSs (DEC, Compaq), 41 PCs
BRASILIA	SGIs	2 DEC Alpha 3000-300	WSs (10): DEC, SGIs
BUENOS AIRES		SGI Origin 2004 and SGI Impact 10000	3 SGI Challenge S SGI INDIGO IMPACT – WSs

**REGION IV**

MEXICO		SGI Origin 2000	
MIAMI			WSs
MONTREAL	IBM P Series 690 (960 CPU) IBM P Series 575 (256 CPU)	2 SGI Origin 3000, 1 SGI Origin 300; 1 TANDEM Himalaya	55 Dell, 61 Compaq DL
WASHINGTON	IBM CCS (2816 processors)	2 SGI Origin 2000/32, SGI ORIGIN 3000/16	

**REGION V**

<i>CENTRE</i>	<i>MAINFRAME (number cruncher)</i>	<i>SECONDARY COMPUTER(S)</i>	<i>WORK STATIONS</i>
JAKARTA		PCs Cluster	
KUALA-LUMPUR	TX 48, GX 28	HPJ5600	
MANILA		PCs Cluster SGI ORIGIN 2000	
SINGAPORE	NEC SX-6	2 FUJITSU M1600, FUJITSU DS90s, 8 SGI Origin 2000	WKs SGI Octane/O2/Indy, PCs
DARWIN			WSs
NADI		2 IBM RS6000/J50	WSs, PCs

WELLINGTON		ALPHA- 9 PARALLEL PROCESSORS.	WSs
MELBOURNE	NEC SX-6 Multi-Nodes (28) 8 cpu/node	NEC TX7/i9510, 9 HP, 2 IBM p690, 2 SGI, 8 DELL	

**REGION VI**

<i>CENTRE</i>	<i>MAINFRAME (number cruncher)</i>	<i>SECONDARY COMPUTER(S)</i>	<i>WORK STATIONS</i>
ANKARA	IBM pSeries 690	SGI Onyx 2, SGI 2200, 3 IBM p630	INTEL P4, PCs
ATHENS	IBM Cluster 1600 28 Computer Nodes 7039-651 pSeries 655	8 RX 2600 6 RX 5670	Sun Clúster WSs - PCs
BELGRADE		Beowulf Cluster	37 PC Pentium
BET DAGAN		SGI Origin 350 300, 2xSGI Origin 200	8 SGI WSs
BRATISLAVA	IBM P690 32 processors	HP 9000/720, IB p470, p460	HPs
BRUSSELS	CRAY J916	HP servers	WSs
BUCAREST	SUN: E4500-8 processors, SUN E3500 –4 processors, Blade1000 – 1 processor	DEC-ALPHA 5004 SUN-ULTRA (2 processors), HP servers	PCs
BUDAPEST	IBM Regatta p655 cluster server (32 processors), p690 Server with 32 processors, SGI ALTIX 3700	SGI Origin 2000 (16 procesors) HP L3000 HPs, DEC 600	HP, DEC, SUN WS - PCs
COPENHAGEN	NEC-SX6 (8 nodes x 8 processors) 2 NEC TX 7	4 SGI Origin 200	WSs
DE BILT		SGI Power Challenge, SGI Origin 2000	Compaq clusters - WSs
DUBLIN	IBM RS/6000 SP	2 SGI Origin 200, SGI CHALLENGE L– 2 VAX 4200 – VAX 3100	
HELSINKI	SGI ALTIX 3700, SGI Origin 2000	VAX 6240	VAX Clusters - WSs
KIEV		EC-1061	PCs
LISBOA		2 DEC Alpha 2000 4/275, 2 DEC Alpha XP1000	
LJUBLJANA	14 dual processors nodes		PCs
MADRID	CRAY C-94	VAX – HP/HPUX and SUN/SOLARIS	SUN WSs
MINSK		2 Intel Celeron 600	3 Intel PIII, 2 Intel P-II
NORRKOPING	CRAY T3E (232 processors) (shared), BLIXT XEON 3.2	Linux Cluster, SGI 3800 DEC Alpha servers	29 VAX (Clusters) - 7 DEC – SUN WSs
OSLO	CRAY T3E	2 IBM RS6000 3 SGI Origin 2000, 200	VAX 4000-200/3300 DEC3100 Alpha-200
PRAGUE	NEC SX-6/4B-32	Fujitsu/ ICL DRS6000	SUN SPARC 10/512, 2 TWO , 10 ONE WSs
RIGA		VAX 3400	WSs
SOFIA	CYBER 31 FLOP1	MOTOROLA SYSTEM	
VIENNA	NEC SX-8R	SGI Origin 3400 28 processors	
WARSAW	SGI Origin 3800	SGI 2000	PCs
ZAGREB	SGI ALTIX	SGI Origin 3400 , 16 CPU	
ZURICH	NEC SX-5 (shared)	8 processors SGI O3000	WSs
ECMWF	2 IBM 1600+ Clusters, 2x2480 processors (1.9GHz Power5+)	11 IBM pseries 4 HPPrx4640	SGIs, PCs

EXETER	NEC SX, NEC 19X	IBM Z990, Z800, 11 IBM Pseries, 4 HP rx 4640	HP WKs
TOULOUSE	NEC 5X 8R 31	HP RP4440, HP T600, HP D370, HP K580	
OFFENBACH	IBM p575 cluster 48 nodes equipped with 8 Power5 processors each IBM p690 Server / p615 Server	Sun Fire 4900 Server 4 SGI ORIGIN 2000	SGI WSs
ROME	ECMWF Service Computer type: IBM-P690 1-4 nodes 30/120 processors.	COMPAQ ES 45, DS 10, GS 60E, 4 HP Alpha server	HP WSs
MOSCOW	CRAY Y-MP8E, 4 XEON	CRAY Y-MPEL 98 – COMPAREX 8/83	2 HP 735 WSs