

AMIP NEWSLETTER

No. 5

WGNE Atmospheric Model Intercomparison Project

January 1994

An information summary and activities description for the Atmospheric Model Intercomparison Project (AMIP) of the Working Group on Numerical Experimentation (WGNE) in support of the World Climate Research Programme. Technical and computational support for AMIP is being provided by the Environmental Sciences Division of the U. S. Department of Energy through the Program for Climate Model Diagnosis and Intercomparison (PCMDI) at the Lawrence Livermore National Laboratory (LLNL), where this Newsletter is prepared by Larry Gates, Chairman, WGNE AMIP Panel, PCMDI, L-264, LLNL, P.O. Box 808, Livermore, CA 94550, USA.

AMIP Update

Progress continues to be made in the assembly of the AMIP standard output and AMIP/PCMDI history, although extensive quality control has been necessary in order to insure the completeness and accuracy of the datasets being archived. The current status of the AMIP simulations themselves is given in the table on page 2, in which it may be noted that 27 of the 30 participating GCM groups have now completed the AMIP integration, for 21 of which the standard output either has been completed or is in progress and for 10 of which the history either has been or is being generated. The 3 groups that have the AMIP integration "in progress" have indicated that they expect to have it completed in the near future. It may also be noted that since the previous *Newsletter* in August 1993, the Hydrometeorological Centre (HMC) and the Los Alamos National Laboratory

(LANL) have withdrawn from AMIP, while the State University of New York at Albany (SUNYA) and the National Center for Atmospheric Research (NCAR) have jointly entered the "Genesis" model.

With the AMIP integrations now nearly completed, PCMDI's attention is focussing on the acquisition of the still-missing standard output datasets and on the assembly of the simulation history. As may be seen in the table on page 2, much remains to be done in this area although it is hoped to have a complete set of standard output available early in 1994 and at least a useful subset of AMIP model history by mid-1994. It is anticipated, however, that some of the models, for a variety of reasons, will not be represented in the PCMDI AMIP history archive now being constructed. (See AMIP Newsletter No. 4).

Access to AMIP Results

In the interest of making at least some AMIP results available outside the AMIP in a timely fashion, many of the modeling groups have declared the standard output (i.e., the monthly-averaged means of selected variables—see AMIP Newsletter No. 2) from their AMIP integration to be an "open" dataset. The AMIP Panel urges those groups that have so far declined to do so to reconsider, in view of the current

trend toward a wider and more open distribution of model integrations in the climate modeling community.

As before, the AMIP history data are distributed outside the AMIP community only with the authorization of the modeling group(s), although it is hoped that these data will also be declared "open" in the future.

AMIP Reports and Publications

Although no protocol for the publication of AMIP results has been established, it is anticipated that each modeling group will publish their model's performance in AMIP as they see fit, while publication of the models' collective performance (as represented by the seasonally-averaged standard output) will be accomplished by PCMDI in cooperation with the AMIP modeling groups, in the form of a WCRP report in 1994. The AMIP Diagnostic Subprojects are also

expected to prepare reports for the WCRP series at an appropriate time, although this is not seen as precluding publication(s) in the reviewed literature. Hopefully, comprehensive assessments of simulation errors and insightful diagnoses of model performance will be presented at the AMIP Scientific Conference in 1995 (see page 16), whose proceedings are also expected to be published.

AMIP Simulation and Output Status

Group	Contact(s)	Model	Integration	Standard Output	History
BMRC	McAvaney	R31 L9	completed	completed	Δ
CCC	Boer	T32 L10	completed	completed	
CNRM	Mahfouf/Cariolle	T42 L30	completed	completed	
COLA	Straus	R40 L18	completed		†
CSIRO	Hunt	R21 L9	completed	completed	†
CSU	Randall	4°x5° L17	completed	completed	Δ
DNM	Galini/Dymnikov	4°x5° L7	completed	completed	
ECMWF	Ferranti/Burridge	T42 L19	completed	completed	Δ
GFDL	Wetherald	R30 L14	completed	Δ	
GFDL/DERF	Miyakoda	T42 L18	completed	completed	†
GISS	Lo/Del Genio	8°x10° L9	completed		
GLA	Lau/Fiorino	4°x5° L17	completed	completed	†
GSFC	Park	4°x5° L20	completed	completed	
IAP	Wang/Zeng	4°x5° L2	completed		
JMA	Sato	T42 L21	completed	Δ	
LMD	Le Treut	3.6°x5.6° L11	completed	Δ	
MGO	Meleshko	T30 L14	completed	Δ	
MPI	Dümenil/Schlese	T42 L19	completed	completed	
MRI	Kitoh/Tokioka	4°x5° L15	completed	completed	Δ
NCAR	Williamson	T42 L18	completed	completed	
NMC	van den Dool/Kalnay	T40 L18	completed	completed	†
NRL	Rosmond	T42 L18	completed	Δ	†
RPN	Ritchie	T42 L21	completed		
SUNYA	Wang/Liang	R15 L12	completed	completed	
SUNYA/NCAR	Wang/Thompson	T31 L18	*		
UCLA	Mechoso	4°x5° L15	*		
UGAMP	Blackburn/Slingo	T42 L19	completed		†
UILL	Schlesinger	4°x5° L7	completed	Δ	
UKMO	Rowell	2.5°x3.75° L20	completed	Δ	†
YONU	Oh	4°x5° L5	*		

* denotes integration in progress

† denotes history assembly in progress

Δ denotes standard output/history undergoing quality control at PCMDI

Preliminary AMIP Results

A preliminary indication of the performance of those AMIP models whose standard output has been completed (see page 2) is shown on pages 4–7 in terms of the mean seasonal zonal averages of sea-level pressure, precipitation, OLR and 200 hPa zonal wind over the AMIP decade.

The results for mean sea-level pressure given on page 4 show that most of this first subset of AMIP models agree rather closely with the observed zonally-averaged distribution in both December-January-February (DJF) and June-July-August (JJA), although a few models show large-scale systematic departures from the observations (which are from ECMWF analyses for the period 1980–87). The corresponding results for precipitation are given on page 5. Here there is also overall agreement among the models and the observations (which are from Legates and Willmott for the period 1951–70) in terms of the large-scale seasonal distributions, although there are several models that appear to be outliers in high and/or low latitudes. If the observations are to be believed (and recall that they are *not* for the AMIP decade), there is preliminary evidence

of a systematic oversimulation of average precipitation in the extratropical Northern Hemisphere.

As further examples of the preliminary AMIP results, the seasonal zonally-averaged outgoing longwave radiation (OLR) and 200 hPa zonal wind are given on pages 6 and 7. With the exception of one or two outliers, the position and strength of the mean seasonal jets in both hemispheres agree closely with observations (which are from NMC analyses for the AMIP decade 1979–88). This is testimony to the overall correctness of the models' simulation of the average tropospheric meridional temperature gradient (with a common observed sea-surface temperature distribution). The mean seasonal distribution of most of the models' OLR also agrees well with observations (which are from ERBE results for 1985–88).

Analysis and validation of these and other AMIP model results is continuing at PCMDI, together with estimates of observational and simulation uncertainties.

Request for AMIP "Ensemble" and Revised Model Output

Several modeling groups have performed one or more repetitions of their AMIP integration using different initial conditions, in order to study the levels of natural or internal variability inherent in the model. So that AMIP may include such variability in its measures of model performance, it is requested that the monthly-averaged standard output variables for each additional simulation of the AMIP decade that has been made with the original AMIP model be submitted to PCMDI.

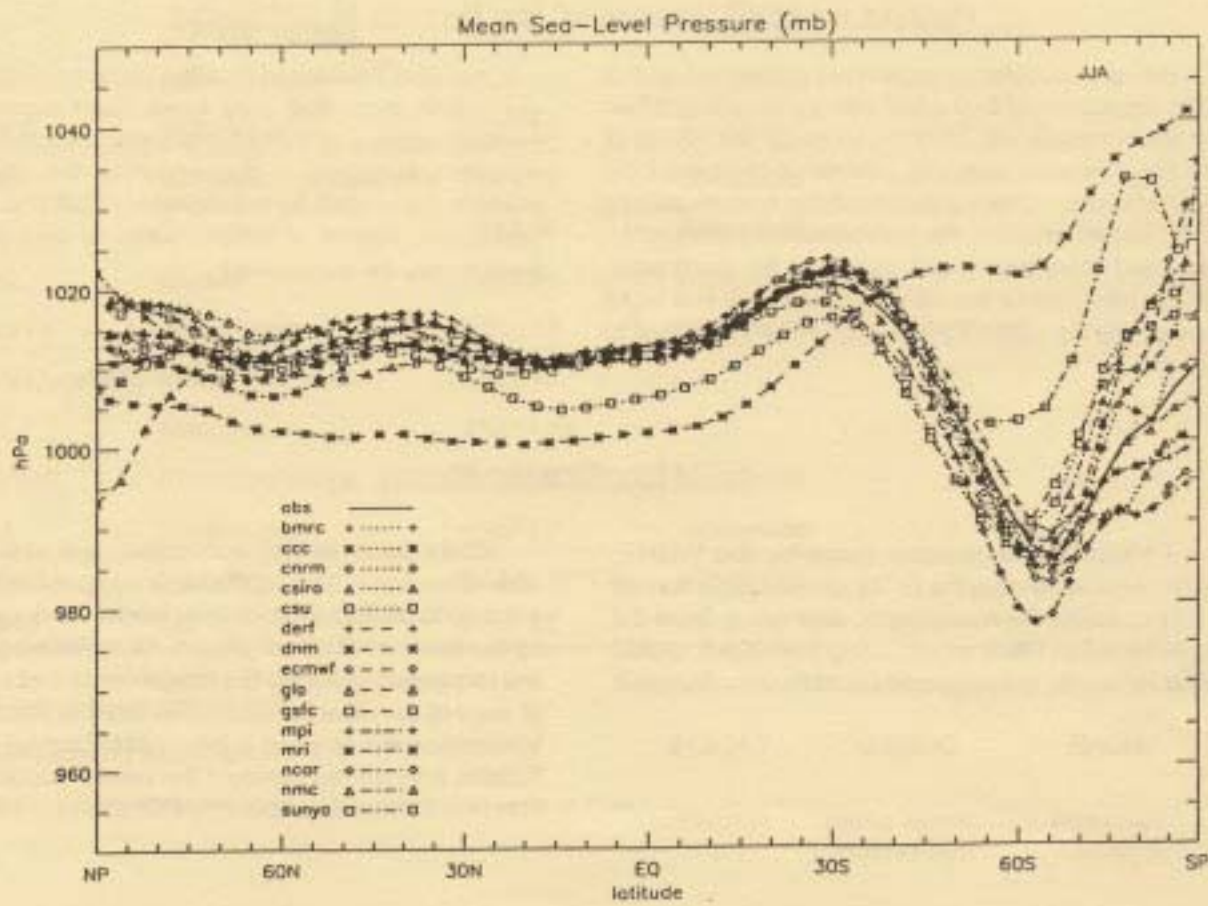
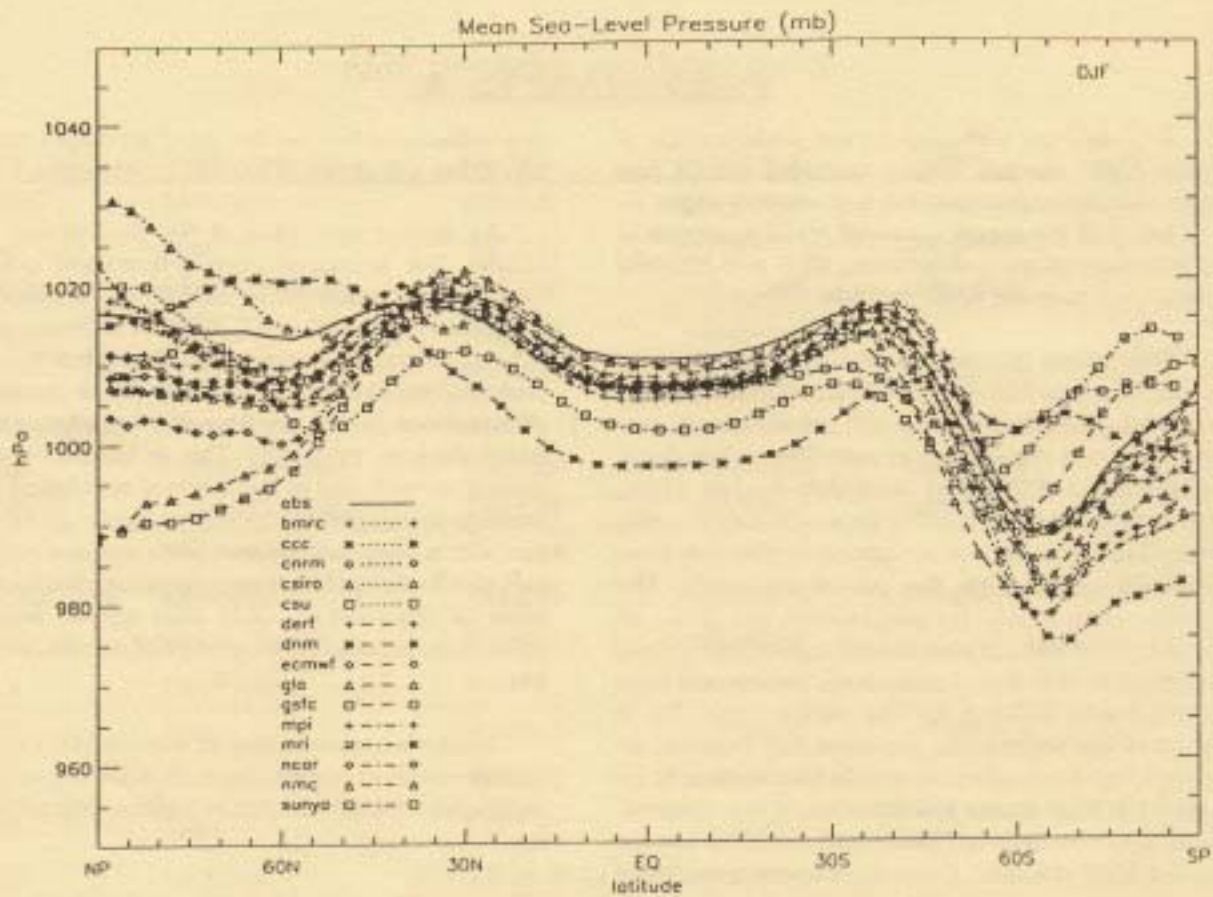
It is also requested that the standard output for any AMIP runs that may have been made with revised versions of the originally-documented AMIP models (along with a description of the changes made to the model) be submitted to PCMDI so that a systematic record of model versions and performance may be maintained.

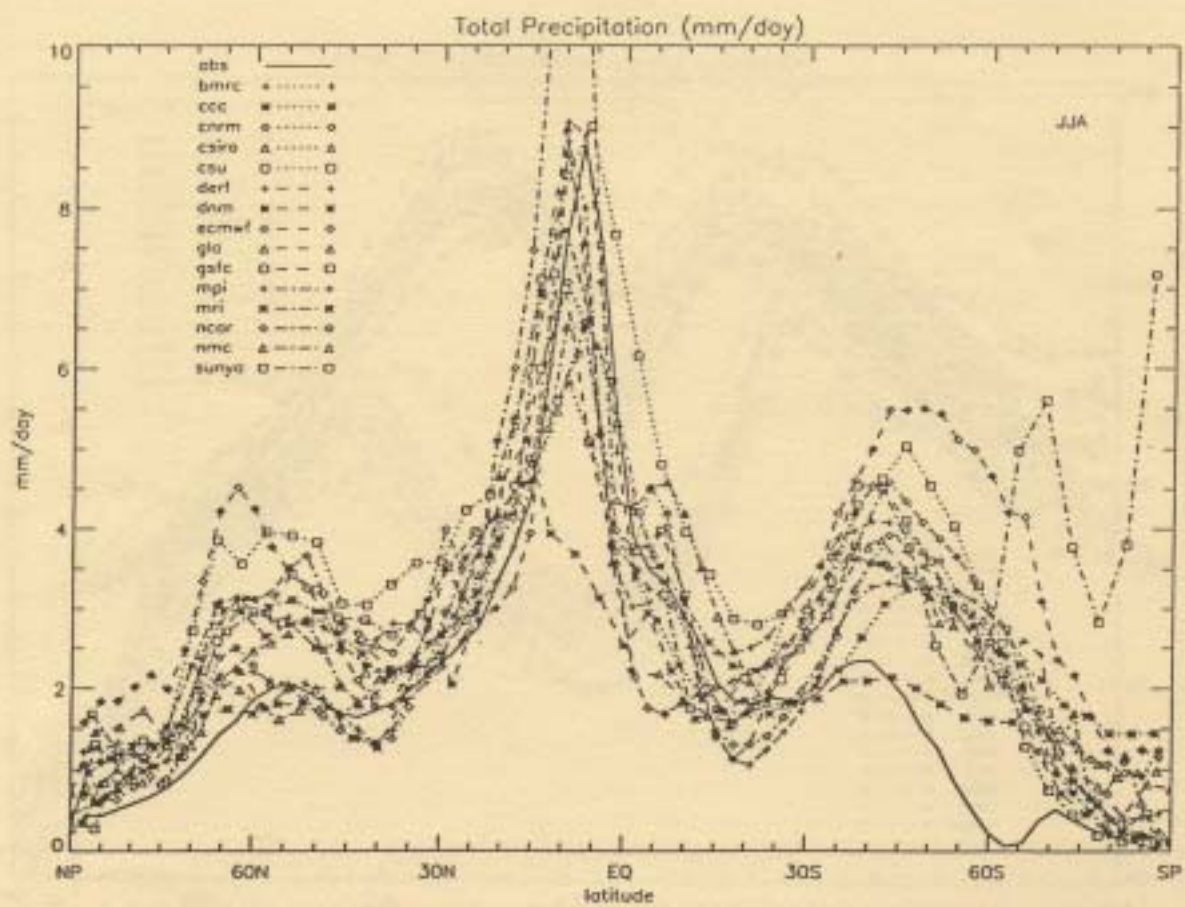
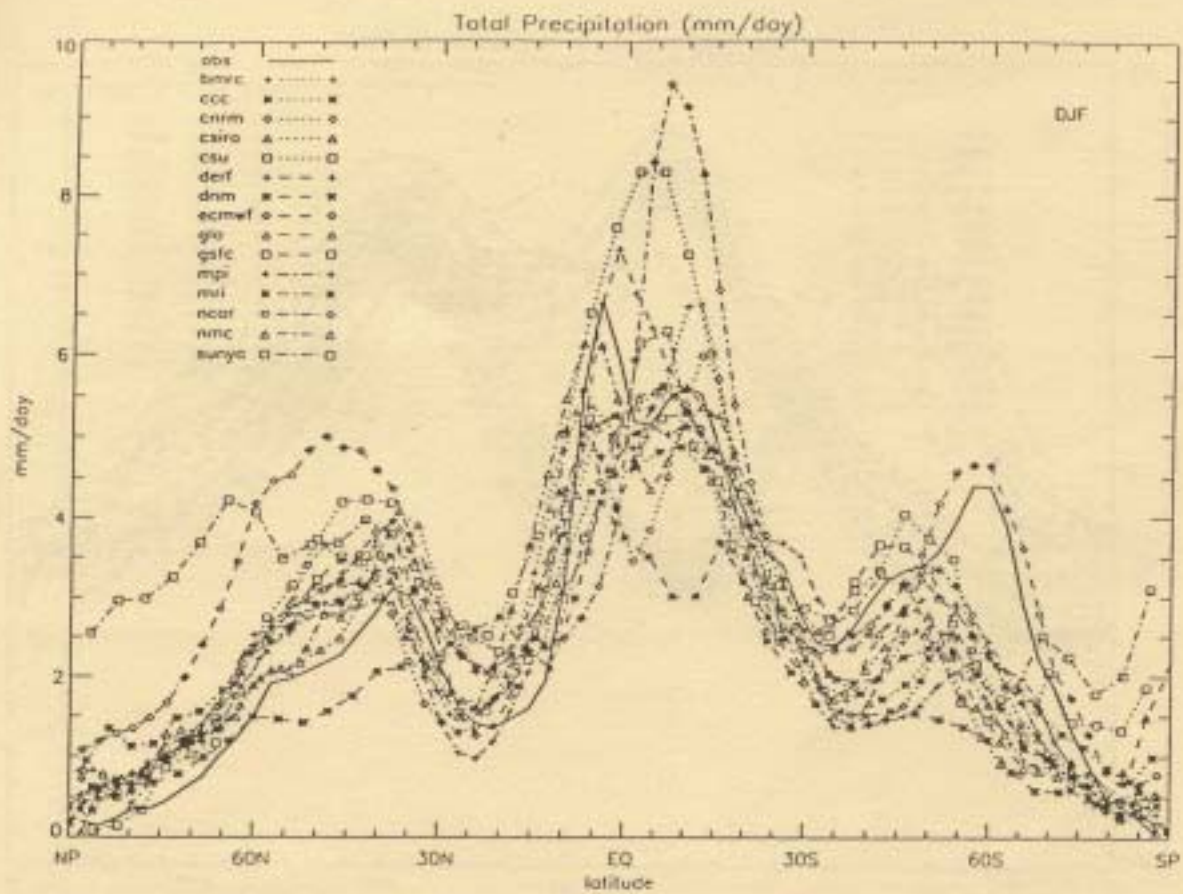
GCM Identification Format

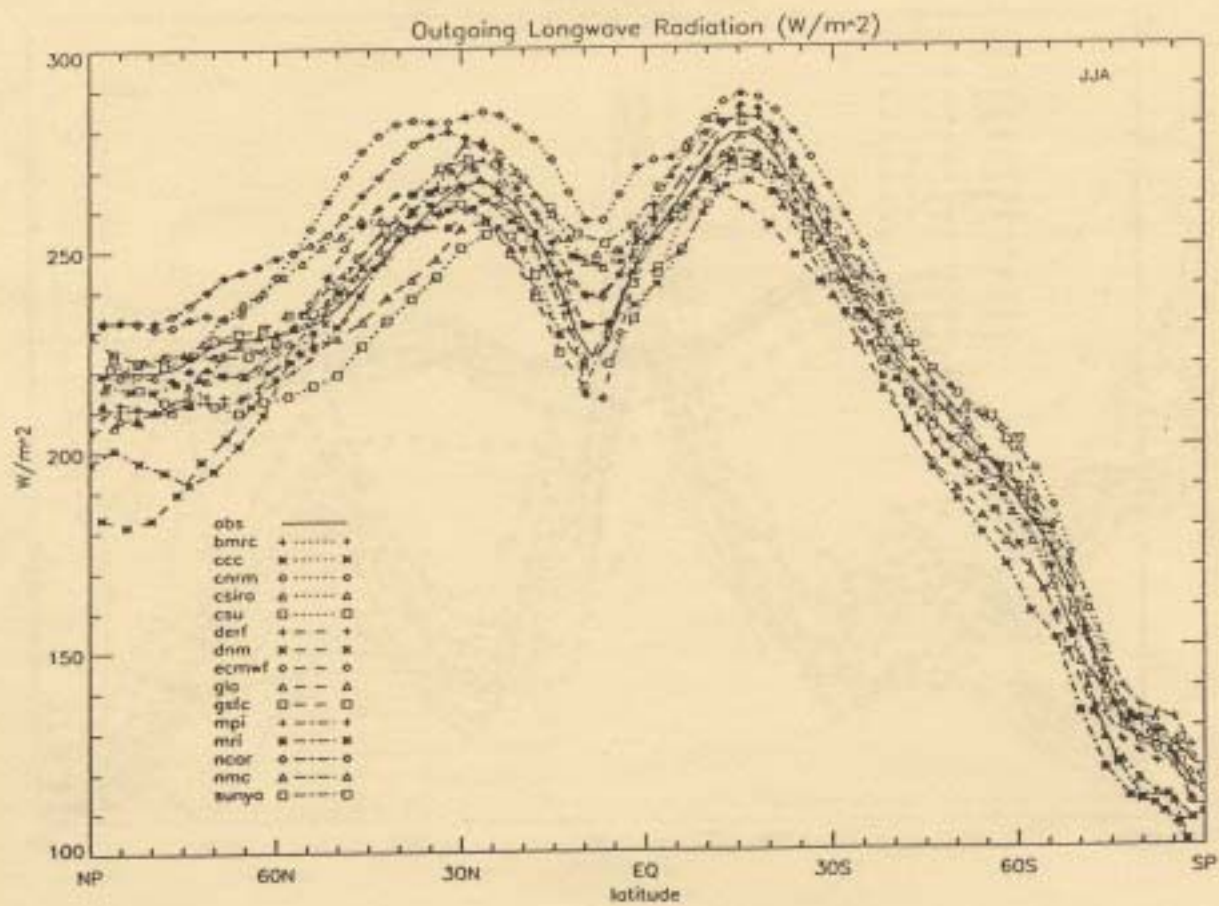
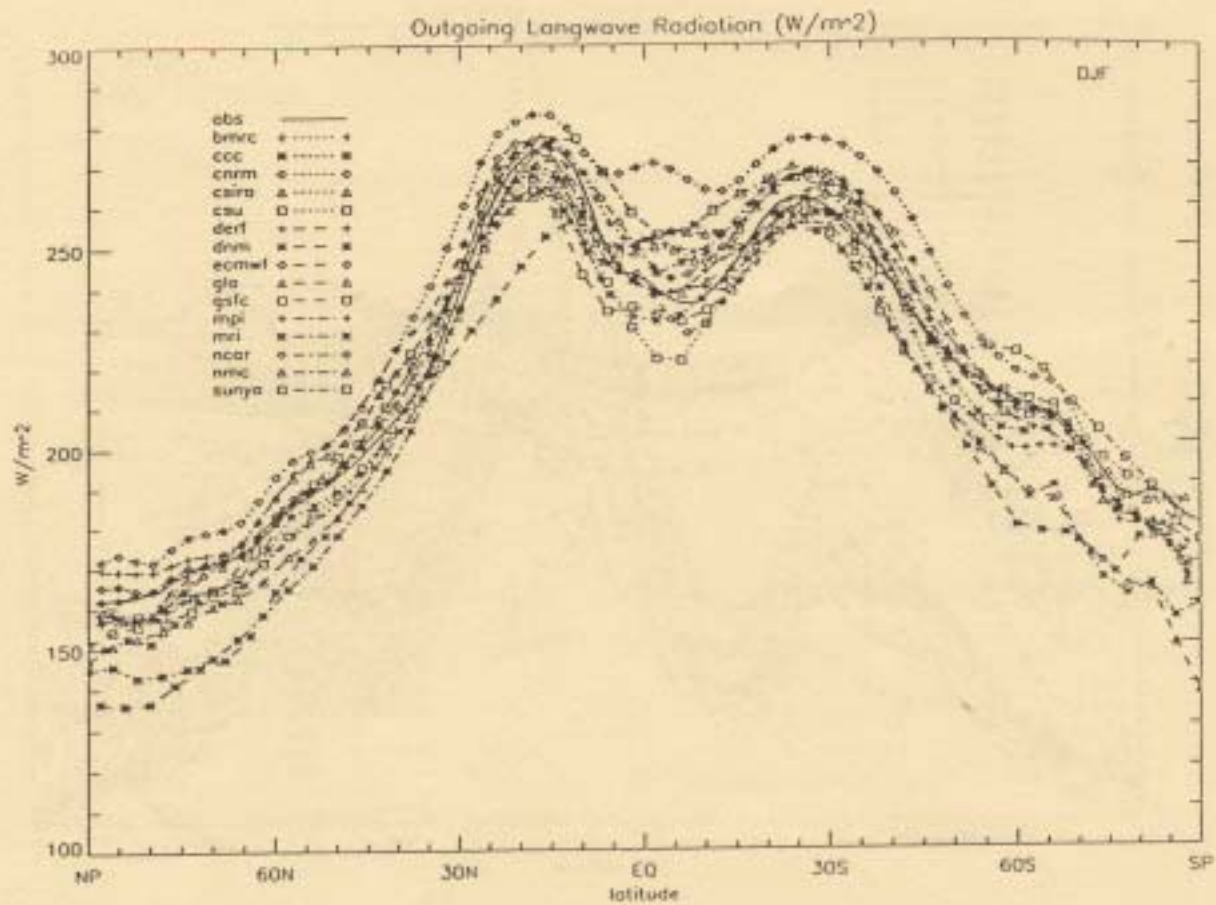
Following a suggestion made by the WGNE, AMIP wishes to adopt a GCM identification format that separates the modeling or user group from the model version being used. Using the NCAR CCM2 as an example, the suggested identification format is

NCAR	CCM2.0	T42 L18
institution or group	model name and version	resolution

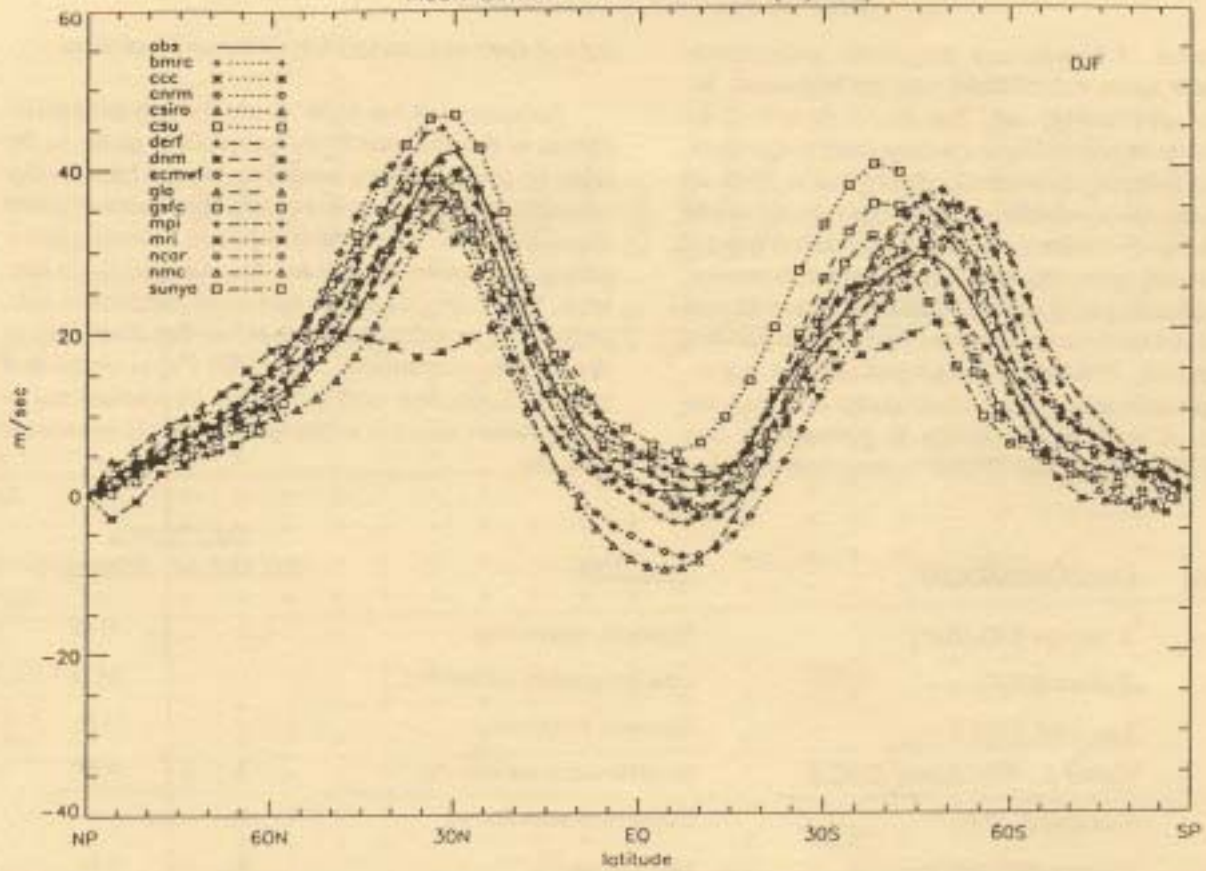
While parts of this convention are already in widespread use, its adoption as a compact model ID will help to distinguish between model versions used by the same or different groups. All modeling groups are requested to supply the model name and version (if any) of the atmospheric GCM used in AMIP; this information will be used in future AMIP model identification and will supplement the model documentation now being assembled by PCMDI.



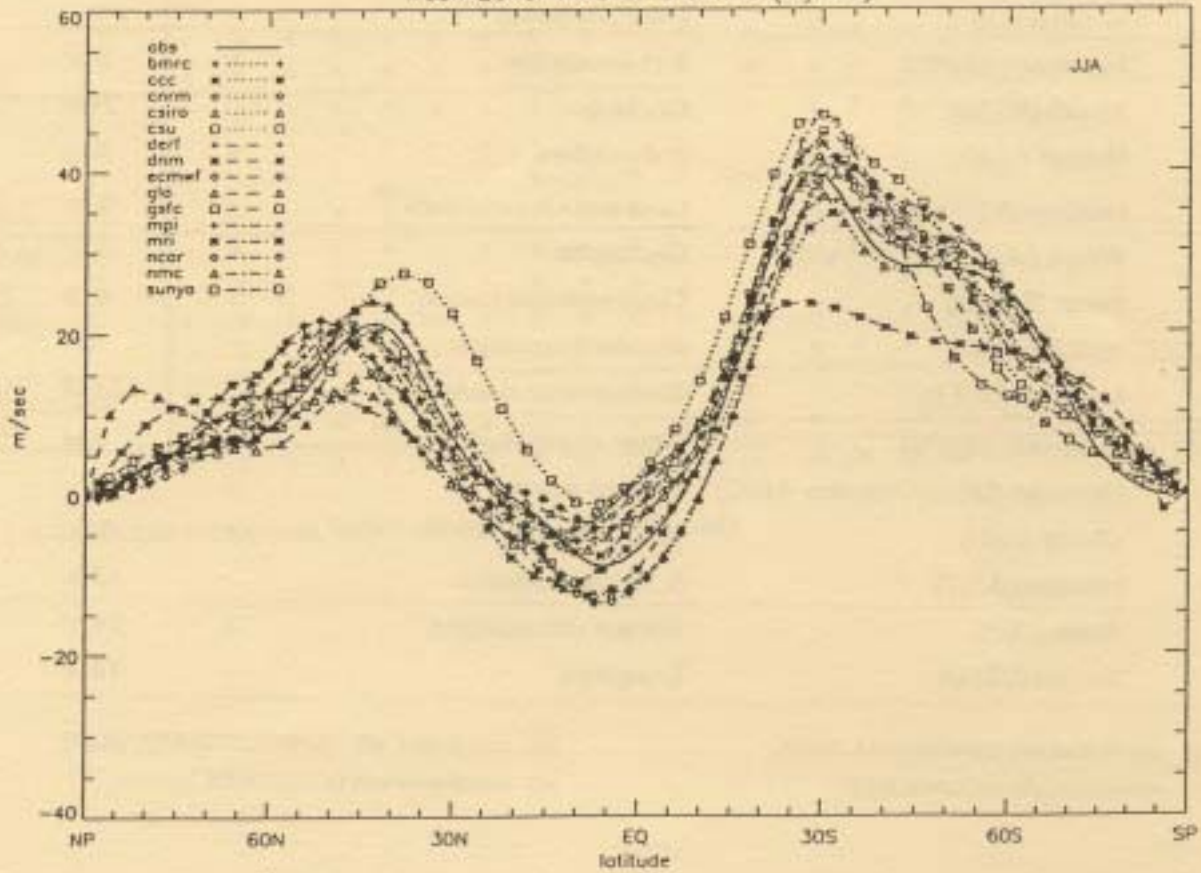




Mean Zonal Wind at 200 hPa (m/sec)



Mean Zonal Wind at 200 hPa (m/sec)



AMIP Diagnostic Subprojects

A total of twenty-two diagnostic subprojects have now been established (see table below). Instead of distributing only the standard output as specifically requested by each diagnostic subproject, the complete set of standard output for all models so far processed (see table on page 2) is now available to the subprojects (as well as to the modeling groups themselves) upon request. It is assumed, however, that each subproject will maintain its approved focus and will not undertake analyses that are the primary responsibility of another subproject without appropriate coordination. The subprojects are also reminded of their responsibility to prepare in due course a report for the WCRP report series and to

submit their results to PCMDI for archival storage.

An update of the AMIP modeling groups' participation in the diagnostic subprojects is given in the table on page 9. Many modeling groups have designated specific persons to serve as their contacts with those subprojects in which they are actively participating, and other groups are encouraged to do likewise. While proposals for additional diagnostic subprojects are welcome from either the modeling or diagnostics community, the AMIP Panel urges that further diagnoses and validation be carried out in cooperation with the existing subprojects whenever feasible.

Number	Lead Organizer(s)	Short Title	Data Needs	
			Std. Output	History
1	J. Slingo (UGAMP)	Synoptic variability	--	6 hr
2	Zwiers (CCC)	Low frequency variability	--	24 hr
3	Lambert (CCC)	Cyclone frequency	--	12 hr
4	Duvel (LMD)/Cheruy (LMD)	Greenhouse sensitivity	x	6 hr
5	Randall (CSU)	Surface ocean fluxes	x	--
6	Palmer (ECMWF)	Monsoons ⁽¹⁾	x	6 hr
7	Lau (GLA)	Hydrologic processes	x	6 hr
8	Walsh (UILL)	Polar processes ⁽²⁾	x	24 hr
9	McAvaney (BMRC)	S.H. circulation	x	6 hr
10	Tibaldi (ADGB)	Blocking	--	24 hr
11	Robock (UMD)	Soil moisture	x	6 hr
12	Henderson-Sellers (MACU)	Land surface processes ⁽³⁾	x	6 hr
13	Weare (UCD)/Mokhov (RAS)	Cloudiness	x	--
14	Potter (PCMDI)	Cloud-radiative forcing	x	6 hr
15	Hide (UKMO)	Angular momentum	--	6 hr
16	Mechoso (UCLA)	Stratospheric circulation	--	24 hr
17	Robertson (MSFC)	Water, energy balances ⁽⁴⁾	x	6 hr
18	Meleshko (MGO)/Trosnikov (HMC)	Extreme events	x	--
19	Christy (UAH)	MSU validation	x	6 hr
20	Hewitson (UCT)	S. Africa circulation	--	12 hr
21	Jones (UEA)	Surface climatologies	x	24 hr
22	Tanaka (UTSU)	Energetics	--	12 hr

(1) coordinated with MONEG/TOGA, WGNE

(2) coordinated with SIOMP/ACSYS

(3) coordinated with PILPS/GCIP/GEWEX, WGNE

(4) coordinated with GCIP/GEWEX

AMIP Diagnostic Subproject Participation

	Slingo	Zwiers	Lambert	Duvel / Cheruy	Randall	Palmer	Lau	Walsh	McAvaney	Tibaldi	Robock	Henderson-Sellers	Weare/Mokhov	Potter	Hide	Mechoso	Robertson	Meleshko/Trosnikov	Christy	Hewitson	Jones	Tanaka	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
BMRC	+	-	-	+	+	+	+	+	+	+	+	+	-	+	+	-	-	-	+	+	-	+	
CCC	+	+	+	+	+	+	+	+	-	-	-	-	-	-	+	-	-	-	-	-	-	-	+
CNRM	+	+	-	-	+	-	+	-	+	-	+	+	-	-	-	+	-	-	-	-	-	-	-
COLA	-	+	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	-	-	-	+	
CSIRO	+	+	-	+	+	+	+	-	-	-	+	+	+	+	+	-	+	+	+	+	+	+	+
CSU	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	-	-	+	+	+
DNM	-	-	-	-	+	+	+	-	-	+	-	-	+	+	-	-	-	+	-	-	-	-	-
ECMWF	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
GFDL	-	-	-	-	-	-	+	-	-	-	+	-	-	+	-	-	-	-	+	-	-	-	-
GFDL/DERF	-	-	-	-	+	+	-	-	-	-	-	-	-	+	-	-	-	-	-	+	-	-	-
GISS	-	+	+	+	+	+	+	-	-	-	+	+	-	+	-	+	+	-	+	-	-	-	-
GLA	+	+	-	+	+	+	+	-	-	+	+	+	-	-	-	-	+	-	-	-	-	-	-
GSFC	+	+	+	-	+	+	+	+	+	+	+	-	+	+	+	-	+	+	-	-	-	-	+
IAP	-	+	-	-	+	-	-	+	-	-	-	+	-	+	-	-	-	+	-	-	+	-	-
JMA	-	+	+	+	+	+	-	+	+	+	-	+	+	+	+	+	-	+	+	-	+	+	+
LMD	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	-	+	+
MGO	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	-	-	+	+	+
MPI	-	-	-	-	-	+	+	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
MRI	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	-	-	+	+	+
NCAR	+	+	+	+	+	+	+	-	-	+	+	+	-	+	+	+	-	-	-	-	-	-	-
NMC	+	+	-	+	-	+	+	+	-	+	+	+	+	+	+	-	-	-	-	-	-	-	-
NRL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPN	+	+	+	-	-	+	-	+	+	+	-	-	-	-	+	-	-	-	-	-	-	-	+
SUNYA	-	-	-	+	+	-	+	+	+	+	-	-	-	+	-	-	-	-	-	-	-	-	-
SUNYA/NCAR	-	-	-	+	+	-	+	+	+	+	-	-	-	+	-	-	-	-	-	-	-	-	-
UCLA	-	+	+	+	+	-	-	+	+	+	-	-	-	+	+	+	-	+	-	-	-	-	-
UGAMP	+	+	+	+	+	+	+	+	+	+	-	-	+	+	+	-	-	+	-	-	-	-	-
UILL	-	+	-	+	-	+	+	+	-	-	+	+	+	+	-	+	-	+	-	-	-	-	-
UKMO	+	+	+	+	+	+	+	+	-	+	+	+	-	+	-	+	+	+	+	-	+	+	+
YONU	-	+	-	+	+	+	+	-	-	+	+	+	+	+	+	+	+	-	+	+	+	+	+

Here + denotes active participation, while - denotes data availability only

Addresses of AMIP Modeling Group Representatives and Diagnostic Subproject Leaders

In the interest of facilitating contact within the AMIP community, the complete postal and electronic addresses of the modeling group representatives and of the leaders of the diagnostic subprojects are

given below in alphabetical order, with the modeling group and/or diagnostic subproject (DS) number given at the left.

UGAMP Dr. Michael Blackburn
Department of Meteorology
University of Reading
2 Earley Gate, Whiteknights
P.O. Box 239
Reading RG6 2AU
United Kingdom
Phone: 44 734 318 327
Fax: 44 734 318316
email: mb2@ib.rl.ac.uk

DS 4 Dr. J.P. Duvel
Laboratoire de Meteorologie
Dynamique
Ecole Polytechnique
91128 Palaiseau Cedex
France
Phone: 33 (1) 69 33 45 42
Fax: 33 (1) 69 33 30 49
email: DUVEL@LMDX12.
POLYTECHNIQUE.FR

CCC Dr. George J. Boer
Canadian Climate Centre
Sedgewick Building, Room C121
University of Victoria
P.O. Box 1700 MS 3339
Victoria, BC V8W 2Y2
Canada
Phone: (604) 721-8981
Fax: (604) 721-8984
email: acmrgb@uvic.bc.doe.ca

ECMWF Laura Ferranti
European Centre for Medium-Range
Weather Forecasts
Shinfield Park
Reading RG2 9AX
United Kingdom
Phone: 44-734-499601
Fax: 44-734-869450
email: laura.Ferranti@ecmwf.co.uk

DS 19 Prof. John R. Christy
Earth System Science Laboratory
Research Institute Room A-11
University of Alabama in Huntsville
Huntsville, AL 35899
Phone: (205) 895-6257
Fax: (205) 895-6970

DNM Dr. Verner Galin
Department of Numerical Mathematics
Russian Academy of Sciences
Leninsky Prospect, 32 A
Moscow 117334
Russia
Phone: 095-938-1808
Fax: 095-938-1821
email: galin@adonis.iasnet.com

MPI Dr. Lydia Dumenil
Max Planck Institute for Meteorology
Bundesstrasse 55
D-20146 Hamburg
Federal Republic of Germany
Phone: (40) 411 73 310
Fax: (49) 40 41173 366
email: dumenil@dkrz-Hamburg.abp.de

DS 12 Prof. Ann Henderson-Sellers
Climatic Impacts Centre
School of Earth Sciences
Macquarie University
North Ryde, NSW 2109
Australia
Phone: 61 2 805 8398
Fax: 61 2 805 9671
email: ann@mqmet.cic.mq.edu.au

DS 20 Prof. Bruce C. Hewitson
Department of Environmental
and Geographical Science
University of Cape Town
Private Bag
Rondebosch, 7700
South Africa
Phone: 27 21 650 2785
Fax: 27 21 650 3791
email: hewitson@enviro.uct.ac.za

DS 15 Prof. Raymond Hide
c/o Dr. Jean O. Dickey
Space Geodetic Science and
Applications Group
Mail Stop 238-332
Jet Propulsion Laboratory
California Institute of Technology
4800 Oak Grove Drive
Pasadena, CA 91109-8099
Phone: (818) 354-3235
Fax: (818) 393-6890

CSIRO Dr. Barrie G. Hunt
Division of Atmospheric Research
CSIRO
Private Bag No. 1
Mordialloc, Victoria 3195
Australia
Phone: 6-13-586-7666
Fax: 6-13-586-7600
email: bgh@atmos.dar.CSIRO.AU

DS 21 Dr. P.D. Jones
Climatic Research Unit
School of Environmental Sciences
University of East Anglia
Norwich, NR4 7TJ
United Kingdom
Phone: 44 603 592090
Fax: 44 603 507 784
email: F028@EAST-ANGLIA.AC.UK

MRI Dr. Akio Kitoh
Meteorological Research Institute
Nagamine 1-1, Tsukuba
Ibaraki 305
Japan
Phone: 81-298-51-7111
Fax: 81-298-51-1449
email: kitoh@mri-1.mri-jma.go.jp

DS 3 Dr. Steven Lambert
Canadian Climate Centre
University of Victoria
P.O. Box 1700 MS 3339
Victoria, BC V8W 2Y2
Canada
Phone: (604) 363-8241
Fax: (604) 363-8247
email: slambert@uvic.bc.doe.ca

GLA,
DS 7 Dr. William Lau
Goddard Space Flight Center/
NASA
Code 913
Greenbelt, MD 20771
Phone: 301-286-7208
Fax: 301-286-1759
email: lau@climate.gsfc.nasa.gov

LMD Dr. Herve Le Treut
Laboratoire de Meteorologie
Dynamique
Ecole Normale Supérieure
24, rue Lhomond
75231 Paris Cedex 05
France
Phone: 33 (1) 44 32 22 37
Fax: 33 (1) 43 36 83 92
email: letreut@lmd.ens.fr

GISS Dr. Kenneth Lo
Goddard Institute for Space Studies
2880 Broadway, Room 680
New York, NY 10025
Phone: 212-678-5609
Fax: 212-678-5552
email: cdkkl@nasagiss.giss.nasa.gov

CNRM Dr. Jean-Francois Mahfouf
Centre National de Recherches
Meteorologiques
42 Avenue Coriolis
31057 Toulouse Cedex
France
Phone: 33-61-07-96-35
Fax: 33-61-07-96-10
email: Jean-Francois.
-MAHFOUF@meteo.fr

BMRC,
DS 9 Dr. Bryant J. McAvaney
Bureau of Meteorology
Research Centre
GPO Box 1289K
Melbourne, Victoria 3001
Australia
Phone: 61-3-669-4134
Fax: 61-3-669-4660
email: bma@bom.gov.au

DS 6 Dr. T.N. Palmer
ECMWF
Shinfield Park
Reading, Berks RG2 9AX
United Kingdom
Phone: 44-734-499600
Fax: 44-734-869450
email: tim.palmer@ecmwf.co.uk

UCLA,
DS 16 Prof. Carlos R. Mechoso
Department of Atmospheric
Sciences
UCLA
405 Hilgard Avenue
Los Angeles, CA 90024-1565
Phone: (310) 825-3057
Fax: (310) 206-5219
email: mechoso@atmos.ucla.edu

GSFC Dr. Chung-Kyu Park
Data Assimilation Office
Code 910.3
NASA Goddard Space Flight Center
Greenbelt, MD 20771
Phone: 301-286-8695
Fax: 301-286-1754
email: park@ckpark.gsfc.nasa.gov

MGO,
DS 18 Dr. Valentin P. Meleshko
Main Geophysical Observatory
7 Karbyshev Street
St. Petersburg 194018
Russia
Phone: 7-812-247-0103
Fax: 7-812-247-8661
email: vmeleshk@sovam.com

DS 14 Dr. Gerak L. Potter
PCMDI, L-264
Lawrence Livermore
National Laboratory
P.O. Box 808
Livermore, CA 94550
Phone: (510) 422-1832
Fax: (510) 422-7675
email: potter@oliver.llnl.gov

DERF Dr. K. Miyakoda
Dynamic Extended Range
Forecasting/GFDL
Princeton University
P.O. Box 308
Princeton, NJ 08542
Phone: (609) 452-6540
Fax: (609) 987-5063
email: wfs@gfdl.gov

CSU,
DS 5 Prof. David A. Randall
Department of Atmospheric Science
Colorado State University
Fort Collins, CO 80523
Phone: (303) 491-8474
Fax: (303) 491-8428
email: randall@redfish.
atmos.colostate.edu

YONU Prof. J.-H. Oh
Department of Astronomy and
Atmospheric Sciences
Yonsei University
134 Shinchon-dong
Seodaemun-ku, Seoul 120-749
South Korea
Phone: 82-2-361-2688
Fax: 82-2-365-5163
email: oh@crg50.atmos.uiuc.edu

RPN Dr. Harold Ritchie
Recherche en Prevision Numerique
2121 Trans-Canada Highway #500
Dorval, Quebec H9P 1J3
Canada
Phone: (514) 421-4739
Fax: (514) 421-2106
email: hritchie@rpn.aes.doe.ca

DS 17 Dr. Franklin Robertson
NASA Marshall Space Flight Center
Mail Code ES42
Huntsville, AL 35812
Phone: (205) 544-1655
Fax: (205) 544-5760

DS 11 Prof. Alan Robock
Department of Meteorology
University of Maryland
College Park, MD 20742
Phone: (301) 405-5377
Fax: (301) 314-9482
email: alan@atmos.umd.edu

NRL Dr. Tom Rosmond
Naval Research Laboratory
7 Gracehopper Ave.
Stop 2
Monterey, CA 93943-5502
Phone: (408) 656-4736
Fax: (408) 656-4769
email: rosmond@nrlmry.navy.mil

UKMO Dr. David Rowell
Hadley Centre for Climate Prediction
and Research
U.K. Meteorological Office
London Road
Bracknell, Berkshire RG12 2SY
United Kingdom
Phone: 44-344-856077
Fax: 44-344-854898
email: DPRowell@email.meto.govt.uk

JMA Dr. Nobuo Sato
Numerical Prediction Division
Japan Meteorological Agency
1-3-4 Ote-machi, Chiyoda-ku
Tokyo 100
Japan
Phone: 81 (03) 3212-8341 ext 3310
Fax: 81 (03) 3211-8407
email: /PN=N.SATO/O=JMA/ADMD=
ATI/C=JP@sprint.com

UILL Prof. Michael E. Schlesinger
Department of Atmospheric Sciences
University of Illinois at Urbana/
Champaign
105 S. Gregory Ave.
Urbana, IL 61801
Phone: (217) 333-2192
Fax: (217) 244-4393
email: schlesin@crg50.atmos.uiuc.edu

DS 1 Dr. Julia Slingo
Department of Meteorology
University of Reading
2 Earley Gate
Whiteknights, P.O. Box 239
Reading, RG6 2AU
United Kingdom
Phone: 44 734 318424
Fax: 44 734 318316
email: swssling@swssnerl.
reading.ac.uk

COLA Dr. David Straus
Center for Ocean-Land-Atmosphere
Studies
4041 Powder Mill Rd., Suite 302
Calverton, MD 20705-3106
Phone: (301) 595-7000
Fax: (301) 595-9793
email: straus@cola.umd.edu

DS 22 Dr. Hiroshi L. Tanaka
Institute of Geoscience
University of Tsukuba
Tsukuba, 305
Japan
Phone: 81-298-53-4502
Fax: 81-298-51-9764
email: tanaka@atm.geo.tsukuba.ac.jp

DS 10 Prof. Stefano Tibaldi
Alma Mater Studiorum
Dipartimento di Fisica
Universita di Bologna
Via Imerio, 46
I-40126 Bologna
Italy
Phone: 39 51 351076
Fax: 39 51 247244
email: Tibaldi@astbol.bo.cnr.it

Aug 26
21

email: bcweare@ucdavis.edu

NMC Dr. Huug van den Dool
U.S. Department of Commerce
NOAA/NWS/NMC
Climate Analysis Center, W/NMC51
World Weather Building, Room 604
5200 Auth Road
Washington, DC 20233
Phone: (301) 763-8155
Fax: (301) 763-8395
email: wd51hd6sgj15.noaa.wwb.gov

GFDL Dr. Richard T. Wetherald
Geophysical Fluid Dynamics
Laboratory (NOAA)
Princeton University
P.O. Box 308
Princeton, NJ 08540
Phone: (609) 452-6515
Fax: (609) 987-5063
email: rw@gfdl.gov

DS 8 Prof. John E. Walsh
Department of Atmospheric
Sciences
University of Illinois at
Urbana-Champaign
105 South Gregory Avenue
Urbana, IL 61801
Phone: (217) 333-7521
Fax: (217) 244-4393
email: walsh@wx.atmos.uiuc.edu

NCAR Dr. David L. Williamson
Climate and Global Dynamics
Division
National Center for Atmospheric
Research
P.O. Box 3000
Boulder, CO 80307-3000
Phone: (303) 497-1000
Fax: (303) 497-1324
email: wmson@ncar.ucar.edu

IAP Dr. Hui-Jun Wang
Laboratory of Numerical Modelling for
Atmospheric Sciences and
Geophysical Fluid Dynamics (LASG)
Institute of Atmospheric Physics
Academia Sinica
P.O. Box 100029
China
Phone: 49 19 693
Fax: 81-1-2028604

DS 2 Dr. Francis Zwiers
Canadian Climate Centre
University of Victoria
P.O. Box 1700 MS 3339
Victoria, BC V8W 2Y2
Canada
Phone: (604) 363-8229
Fax: (604) 363-8247
email: fzwiers@uvic.bc.doe.ca

SUNYA Dr. Wei-Chyung Wang
Atmospheric Sciences Research Center
State University of New York at Albany
100 Fuller Rd.
Albany, NY 12205
Phone: (518) 442-3357
Fax: (518) 442-3360
email: wang@climate.ASRC.Albany.edu

DS 13 Prof. Bryan C. Weare
Department of Land, Air
and Water Resources
Atmospheric Science Section
University of California, Davis
Davis, CA 95616
Phone: (916) 752-3445
Fax: (916) 752-1552

AMIP Validation Data

The availability of observational datasets that will serve to validate model performance is essential to meeting the goals of AMIP. To this end PCMDI has acquired a number of major climate datasets that are generally global in extent, gridded, and temporally averaged to monthly time scales covering the AMIP period (Jan 1979 to Dec 1988). These DRS format-

ted files are now available in a single directory stored on optical disk that permits ready access. Over and above conventional climatological datasets that do not address specific AMIP months, the major datasets now in the AMIP data archive at PCMDI are given in the table below. Unless otherwise indicated, these datasets are global.

<u>Variable</u>	<u>Source</u>	<u>Period</u>	<u>Resolution</u>
Temperature	ECMWF analyses	1980-1988	2.5° x 2.5°
	NMC analyses	1979-1988	2.5° x 2.5°
Geopotential	ECMWF analyses	1980-1988	2.5° x 2.5°
	NMC analyses	1979-1988	2.5° x 2.5°
Mean sea-level pressure	SIO	1979-1988	5° x 5° 72N-42S
Wind	ECMWF analyses	1980-1988	2.5° x 2.5°
	NMC analyses	1979-1988	2.5° x 2.5°
Relative humidity	ECMWF analyses	1980-1988	2.5° x 2.5°
Cloudiness	ISCCP	1983-1988	2.5° x 2.5°
Precipitation	CAC	1986-1991	2.5° x 2.5°, 40N-40S
	CRU	1979-1988	5.0° x 5.0°, land only
	GSFC	1979-1988	2.0° x 2.5°, land only
Surface temperature (2m)	GSFC	1979-1988	2.0° x 2.5°, land only
Precipitable water	SIO	1987-1990	2.5° x 2.5°, SSMI/RAWINDSONDE
	GSFC/ECMWF	1980-1988	4° x 5°
Surface evaporation	GSFC	1979-1988	2.0° x 2.5°, land only
Streamfunction, velocity potential	GSFC/ECMWF	1980-1988	4° x 5°
Net TOA longwave radiation	ERBE	1985-1988	1.25° x 1.25°
Net TOA shortwave radiation	ERBE	1985-1988	1.25° x 1.25°

AMIP Scientific Conference

It is planned to hold an AMIP Scientific Conference at the U.S. Naval Postgraduate School in Monterey, California during 15-19 May 1995. At this conference it is expected that comprehensive reports will be presented by both the AMIP modeling groups and the diagnostic subprojects, and that the proceedings will be published as a book or in a special issue of a scientific journal. As at previous

AMIP meetings, the PCMDI will support the participation of a representative from each AMIP modeling group and diagnostic subproject, although the conference will be open to any interested participant. Further information on the conference will be distributed in due course, although preliminary inquiries may be directed to Lori McDowell at PCMDI.

AMIP Contacts

Questions, suggestions and comments on AMIP are welcome, and may be directed to the following:

PCMDI role	-- Larry Gates tel: (510) 422-7642 fax: (510) 422-7675 email: gates5@llnl.gov	Validation data	-- Mike Fiorino tel: (510) 423-8505 fax: (510) 422-7675 email: fiorino@cirrus.llnl.gov
WGNE AMIP Panel	-- Larry Gates, Chairman George Boer (CCC, Victoria) Lennart Bengtsson (MPI, Hamburg) David Burridge (ECMWF, Reading)	Model documentation	-- Tom Phillips tel: (510) 422-0072 fax: (510) 422-7675 email: phillips@tworke.llnl.gov
WCRP role	-- Roger Newson (Geneva)	Simulation standard output	-- Clyde Dease tel: (510) 422-3058 fax: (510) 422-7675 email: dease@yoda.llnl.gov
DOE role	-- Mike Riches (Washington, DC)		or
<u>PCMDI support:</u>			Peter Gleckler tel: (510) 422-7631 fax: (510) 422-7675 email: gleckler@airsea.llnl.gov
Computer time, user accounts	-- Jerry Potter tel: (510) 422-1832 fax: (510) 422-7675 email: potter@oliver.llnl.gov	Simulation history	-- Ken Sperber tel: (510) 422-7720 fax: (510) 422-7675 email: sperber@space.llnl.gov
	or		or
	Lisa Corsetti tel: (510) 422-8705 fax: (510) 422-7675 email: lisa@zeppelin.llnl.gov		
DRS software	-- Bob Drach tel: (510) 422-6512 fax: (510) 422-7675 email: drach@cricket.llnl.gov		Jim Boyle tel: (510) 422-1824 fax: (510) 422-7675 email: boyle@cobra.llnl.gov
Programming, visualization	-- Bob Mobley tel: (510) 422-7649 fax: (510) 422-7675 email: mobley@rabbit.llnl.gov	Travel and administration	-- Lori McDowell tel: (510) 422-7638 fax: (510) 422-7675 email: mcdowell6@llnl.gov