

The AMMA information system

AGRHYMET Regional Center, Niamey
Oumarou Moulaye

ESPRI, IPSL, Palaiseau
Sophie Cloché, Karim Ramage

SEDOO, OMP, Toulouse
Jean-Luc Boichard, Guillaume Brissebrat, Laurence Fleury,
Laurence Mastroillo

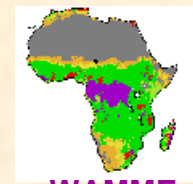
LOCEAN, Paris
Laurence Eymard

GAME, Toulouse
Nicole Asencio, Florence Favot, Odile Roussot



Main messages

- AMMA information system is not a database
but
**a twin system of 5 databases
+ associated tools**
- AMMA information system is not intended to
data/users founded/participating in AMMA phase 1
project only but **a service for the whole scientific
community**. Data come from ... and/or services are
delivered to...



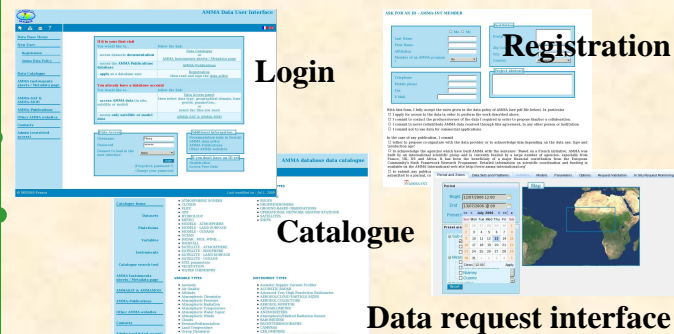
...

A distributed system

Metadata

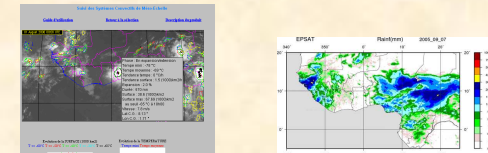
Information about all the datasets
→ « catalogue base »

User interface



Satellite products

60 operational and research products

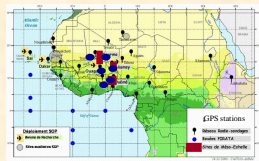


NetCDF files
Regular lat/lon grids

In situ data

About 250 datasets

EOP / SOP /
LOP data



Historical data
Operational data

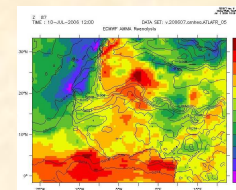
Research observing network data

Questionnaire data

1344 outputs of a socio-economics survey

Model outputs

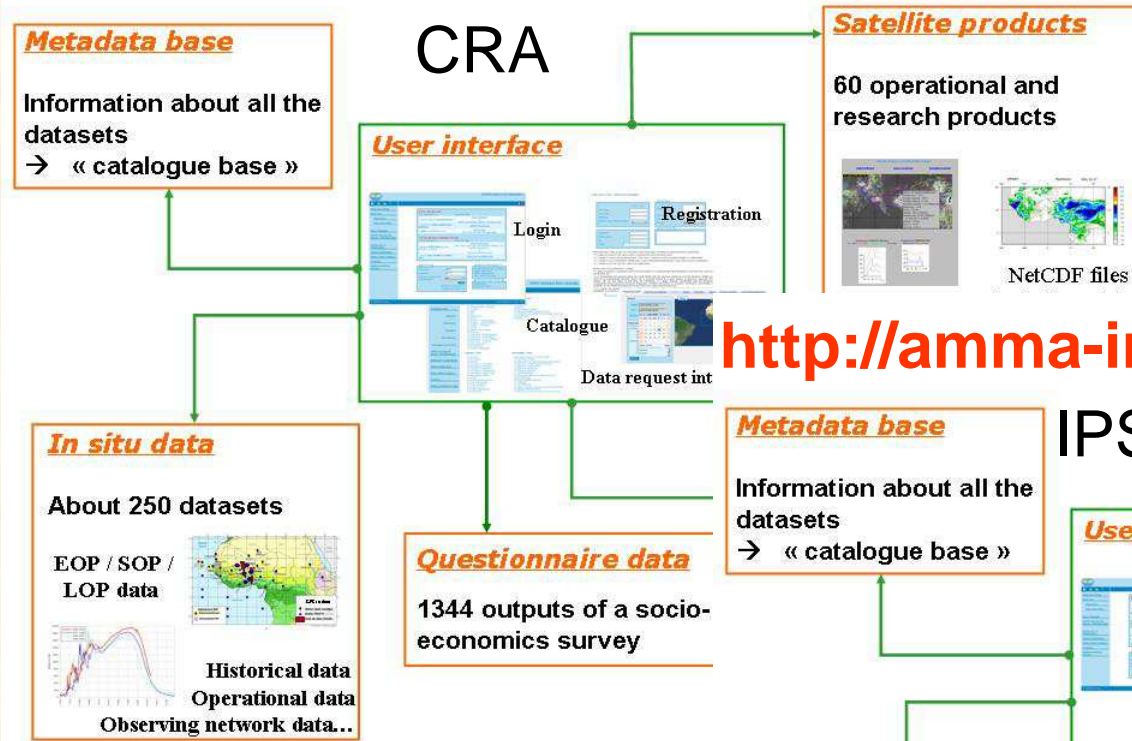
Outputs from 15 research
+ 10 operational models



NetCDF files
Regular lat/lon grids

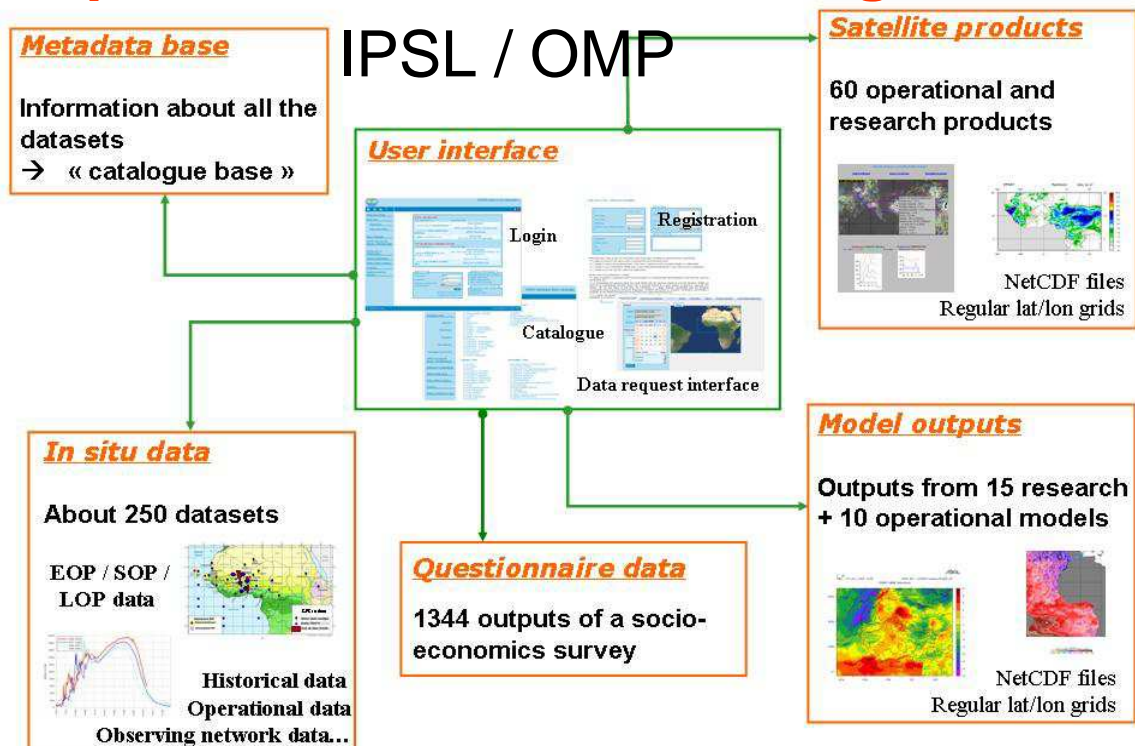
A distributed and duplicated system

<http://amma.agrhymet.ne/amma-data>



**Synchronized databases.
Same interface fonctionnalities.
Common user administration.**

<http://amma-international.org/database>



Detailed database content

AMMA database data catalogue	
   	Catalogue home >
Database home New user Catalogue home Datasets Platforms Variables Instruments Catalogue search tool AMMA Instruments sheets / Metadata page AMMASAT & AMMAMOD Other AMMA websites Contacts Admin (restricted access)	<p>WELCOME TO THE AMMA DATA CATALOGUE</p> <p>PROJECTS</p> <ul style="list-style-type: none"> • AMMA-CATCH <ul style="list-style-type: none"> ◦ Benin ◦ Mali ◦ Niger • AMMA-Impacts <ul style="list-style-type: none"> ◦ Agronomy ◦ Health ◦ Society • Campaigns <ul style="list-style-type: none"> ◦ AMMA-SOP ◦ NAMMA ◦ SCOUT • ESCAPE • FENNEC • IMPETUS • Operational Data <ul style="list-style-type: none"> ◦ Meteo ◦ Pluvio ◦ Radiosonde high resolution data • QWeCI • Research observation services <ul style="list-style-type: none"> ◦ GPS ◦ IDAF ◦ Oceans Networks ◦ SO AERONET <p>VARIABLE TYPES</p> <ul style="list-style-type: none"> • Aerosols • Agricultural Engineering • Agricultural Plant Science • Air Quality • Altitude <p>DATASET TYPES</p> <ul style="list-style-type: none"> • AEROSOLS • AGRONOMY • ATMOSPHERIC CHEMISTRY • ATMOSPHERIC SONDES • CLOUDS • FLUX • GPS • HEALTH IMPACTS • HYDROLOGY • METEO • MODELS - ATMOSPHERE • MODELS - LAND SURFACE • MODELS - OCEANS • OCEAN • RADAR : MCS, WIND, ... • RAINFALL • SATELLITE - ATMOSPHERE • SATELLITE - BIOSPHERE • SATELLITE - LAND SURFACE • SATELLITE - OCEANS • SOCIETY • SOIL PARAMETERS • TOPOGRAPHY / MAPS • VEGETATION • WATER CHEMISTRY <p>PLATFORM TYPES</p> <ul style="list-style-type: none"> • AIRCRAFT • BALLOONS • GROUND-BASED OBSERVATIONS • GROUND STATIONS • OCEAN PLATFORMS • OPERATIONAL NETWORK GROUND STATIONS • SATELLITES • SHIPS <p>INSTRUMENT TYPES</p> <ul style="list-style-type: none"> • Advanced Very High Resolution Radiometer • AEROSOL COLLECTORS • AETHAELOMETER • ANEMOMETERS • BAROMETERS

Synthetic tables:

<http://database.amma-international.org/docs/DatabaseContent.pdf>
(paper copy available during the conference)

Data request interactive tool

Data type, period and area selection

Period and Zones | Parameters and Platforms | Options (In Situ data) | Request Validation | Request Monitoring

Control panel
User : Laurence Fleury
Logout - User manual

Period
Begin:
End:
(dd/MM/yyyy) (HH:mm)
Preset:
Period:

Preset areas
Sub-regional windows
Meso-scale Sites
Super sites

Map

Mouse Position
Lat:
Lon:

Zoom
Lat:
Lon:
Lat:
Lon:
Unzoom Apply

In situ observation dataset selection

User : Laurence Fleury
Logout
User manual

Data Types
☒ In Situ Data
☐ Satellite Data
☐ Model Data

Only the platforms and datasets corresponding to the selected parameters are displayed.
Only the platforms and datasets located in the selected area are displayed.
By default, all datasets and platforms located in the selected area are selected.

Period and Zones | Data Sets and Platforms | Satellites | Models | Parameters | Options | Request Validation | In Situ Request Monitoring

Reset

Data Set
ACAR
AE.Dust_ST
AE.Flux_MBour
AE.GPS_1
AE.GPS_1-v2
AE.H2OFlux_G

Platforms
OUINDITENE
ABAJI (ABIJI) N.A. SCHOOL
ABALA (CONGO)
ABALA (NIGER)
ABALAK
ABANGA (NKAN CGPOO)

Selection

Parameter selection

User : Laurence Fleury
Logout
User manual

Data Types
☒ In Situ Data
☐ Satellite Data
☐ Model Data

By default, all parameters are selected.

Period and Zones | Data Sets and Platforms | Satellites | Models | Parameters | Options | Request Validation | In Situ Request Monitoring

Parameters
Reset
ATMOSPHERE
Aerosols
Air Quality
Altitude
Atmospheric Chemistry
1,2,3-trimethylbenzene
1,2,4-trimethylbenzene
1,3,5-trimethylbenzene
2,4-trimethylpentane
Carbon Dioxide Mixing Ratio
Carbon Dioxide Partial Pressure
Carbon Monoxide Mixing Ratio
Ethylbenzene
Heptane
Hexane
Nitric Oxide Mixing Ratio
Nitrogen Dioxide Mixing Ratio
Octane
O-xylene
Ozone Mixing Ratio
Ozone Partial Pressure
Peroxy Radicals Mixing Ratio

Model output selection

User : Laurence Fleury
Logout
User manual

Data Types
☐ In Situ Data
☒ Satellite Data
☒ Model Data

Only the models corresponding to the selected parameters are displayed.

Period and Zones | Data Sets and Platforms | Satellites | Models | Parameters | Options | Request Validation | In Situ Request Monitoring

Reset

Models
ALADIN model outputs
AROME model outputs
ARPEGE-TROPIQUE model outputs
ECMWF AMMA Reanalysis
MERCATOR-OCEAN PSY1V2

Selection
ECMWF operational archive
Resolution(s)
☐ 0.25
☐ 0.5
Level Types
Min Max
model level number (lowest level > top level)
model level (lowest level)
pressure level
surface

Period and Zones | Data Sets and Platforms | Satellites | Models | Parameters | Options | Request Validation | In Situ Request Monitoring

Reset

Satellites / Instruments
ADEOS / POLDER-1
DMSP-F10 / SSMI
DMSP-F13 / SSMI
DMSP-F15 / SSMI
PATHFINDER / AVHRR
TRMM / TMI
multi-sat / gpcp
ADEOS2 / POLDER-2
DMSP-F11 / SSMI
DMSP-F14 / SSMI
METEOSAT / METEOSAT-IR
TERRA / MODIS
multi-sat / EPSAT-SG

Selection
DMSP-F08 / SSMI
MSG / SEVIRI
Resolution(s)
0.25
☐ 0.03
☐ 0.05

Satellite product selection

Socio-economics questionnaire interface

Questionnaire on household adaptation strategies (cf. talk Diallo on Tuesday morning).

→ Selection and consultation pages.

→ All the forms in xls or the MySQL database can be supplied



The screenshot displays the AMMA socio-economic database interface. At the top, there is a header with the AMMA logo and the text 'Base de données socio-économiques AMMA'. Below the header, there are three navigation links: 'Accueil', 'Visualisation d'un questionnaire', and 'Recherche géographique'. The main content area shows the 'BFA0021 Informations générales' form. This form includes fields for 'Numero d'ordre' (BFA0021), 'Date' (2008-07-05), 'Village' (TOUGOU), 'Ethnie de(des) personne(s) interrogée(s)' (FULSE), 'Autochtone' (1), 'Durée dans le village' (0), and 'Langue utilisée pendant l'interview'. Navigation links '< precedent' and 'suivant >' are present. Below the form, there are several tabs for different sections: 'Informations générales', 'Ressources humaines', 'Economie de l'UP', 'Superficie cultivée de l'UP', 'Equipement de l'UP', 'Agriculture pluviale, campagne passée', 'Cultures pluviales', 'Cultures irriguées', 'Produits agricoles', 'Elevage', 'Espace pastoral', 'Produits forestiers', 'Changements climatiques', 'Impacts des changements climatiques', and 'Questions/Réponses sur le climat'. At the bottom, there is a link 'Télécharger ce questionnaire dans sa totalité :' followed by icons for PDF and Excel files.

Base de données socio-économiques AMMA			
Accueil	Visualisation d'un questionnaire	Recherche géographique	
BFA0021 Informations générales			
< precedent		suivant >	
Numero d'ordre :	BFA0021	Date :	2008-07-05
Village	TOUGOU		
Ethnie de(des) personne(s) interrogée(s):	FULSE		
Autochtone	1		
Durée dans le village	0		
Langue utilisée pendant l'interview :			
Informations générales	Ressources humaines	Economie de l'UP	Superficie cultivée de l'UP
Equipement de l'UP	Agriculture pluviale, campagne passée	Cultures pluviales	Cultures irriguées
Produits agricoles	Elevage	Espace pastoral	Produits forestiers
Changements climatiques	Impacts des changements climatiques	Questions/Réponses sur le climat	
Télécharger ce questionnaire dans sa totalité :  			

Socio-economics questionnaire interface

Questionnaire on household adaptation strategies

→ selection and consultation pages

→ 17 output pages of **predefined database requests**
(contact us to add others)

Espèces élevées

Choisissez l'espèce à analyser ↕

Envoyer

Bovin

Site	augmenté	diminué	disparu	ne sais pas	nouveau	stable
Banizoumbou	13	20	0	0	0	10
Barkedji	2	6	8	1	0	2
Chingowa	1	0	0	1	0	1
Dano	1	33	8	0	16	1
Dianguirde	8	36	2	0	0	21
Galle	28	22	2	0	0	9
Guidan Roumji	9	20	2	0	1	2
Kafrine	3	31	47	0	2	2
Kalalawa	2	1	1	0	1	2
Mountseka	9	18	3	0	1	5
Nankorola	45	18	0	0	0	29
Oudalan	8	53	4	1	5	3
Tougou	20	25	1	0	2	9
Tourourou	4	28	11	0	0	0
Ziga	8	44	10	1	3	2
Zongo Buhari	8	4	0	0	0	5

How to register ?

ASK FOR AN ID - AMMA-INT MEMBER

	<input type="radio"/> Ms. <input type="radio"/> Mr.
Last Name	<input type="text"/>
First Name	<input type="text"/>
Affiliation	<input type="text"/>
Member of an AMMA program ?	<input type="text" value="No"/>

Telephone	<input type="text"/>
Mobile phone	<input type="text"/>
Fax	<input type="text"/>
E-Mail	<input type="text"/>

Institution	<input type="text"/>
Postal Address	<input type="text"/>
Zip Code	<input type="text"/>
City	<input type="text"/>
Country	<input type="text" value="Afghanistan"/>

Project abstract	<input type="text"/>
------------------	----------------------

With this form, I fully accept the rules given in the data policy of AMMA (see pdf file below). In particular

- ☐ I apply for access to the data in order to perform the work described above.
- ☐ I commit to contact the producer/owner of the data I required in order to propose him/her a collaboration.
- ☐ I commit to never redistribute AMMA data received through this agreement, to any other person or institution.
- ☐ I commit not to use data for commercial applications.

In the case of any publication, I commit

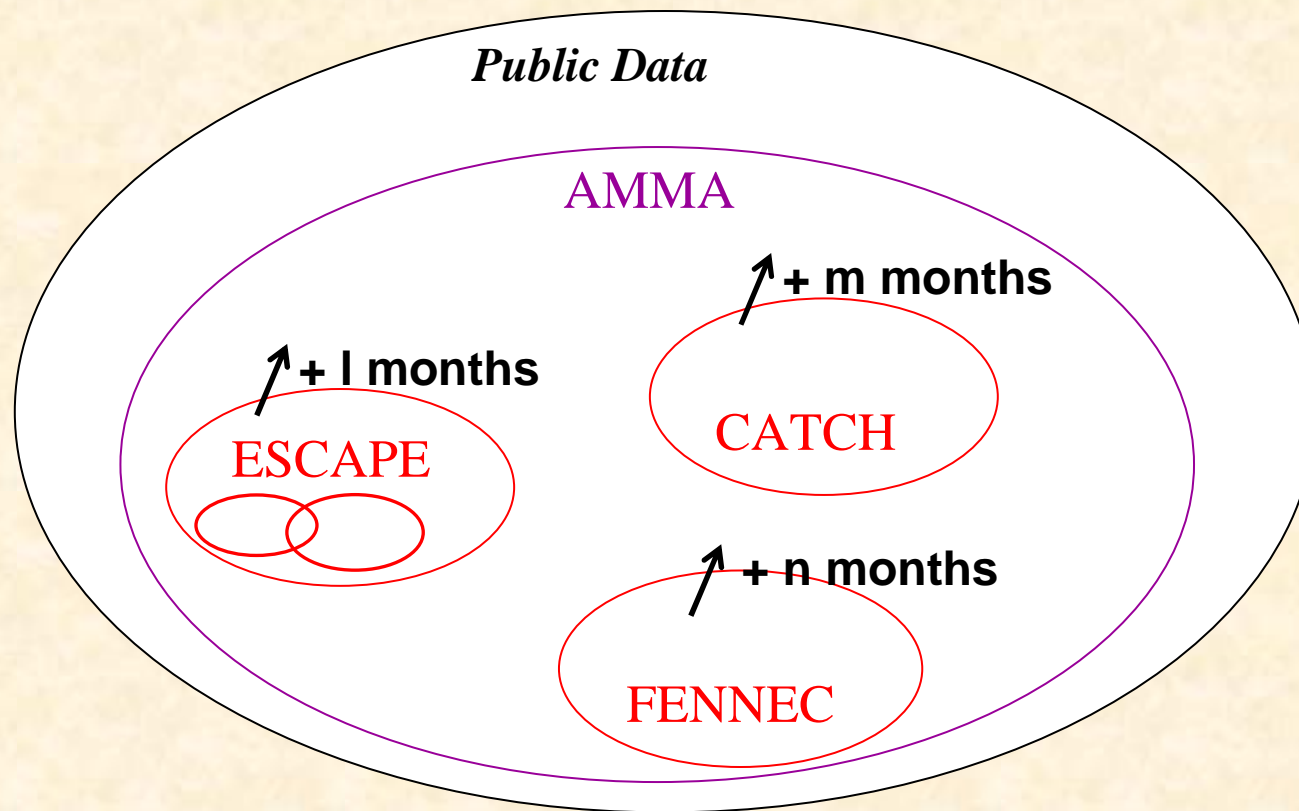
- ☐ either to propose co-signature with the data provider or to acknowledge him depending on the data use, type and 'production age'.
- ☐ to acknowledge the agencies which have built AMMA with the sentence: 'Based on a French initiative, AMMA was built by an international scientific group and is currently funded by a large number of agencies, especially from France, UK, US and Africa. It has been the beneficiary of a major financial contribution from the European Community's Sixth Framework Research Programme. Detailed information on scientific coordination and funding is available on the AMMA International web site <http://www.amma-international.org>'
- ☐ to submit any publication related to AMMA to the Project Office (amma.office@ipsl.jussieu.fr) as soon as it is submitted to a journal, conference or other organization.

AMMA data and publication policy

Data user obligations

- Data use restricted to **scientific or educational activities**, and any activity serving public interests.
- **No data use for commercial applications** is allowed.
- **No data redistribution** to third parties is allowed.
- **Contact the data provider** (*automatic mails*).
- **Co-sign with the data provider or acknowledge** him/her depending on the significance of the

Multiproject context



l, m, n = a reasonable period of exclusive access to datasets (< 24)
Specific acknowledgment sentence for each dataset.

Possibility : a registration form / data policy by project.
Management of user and dataset “roles”.

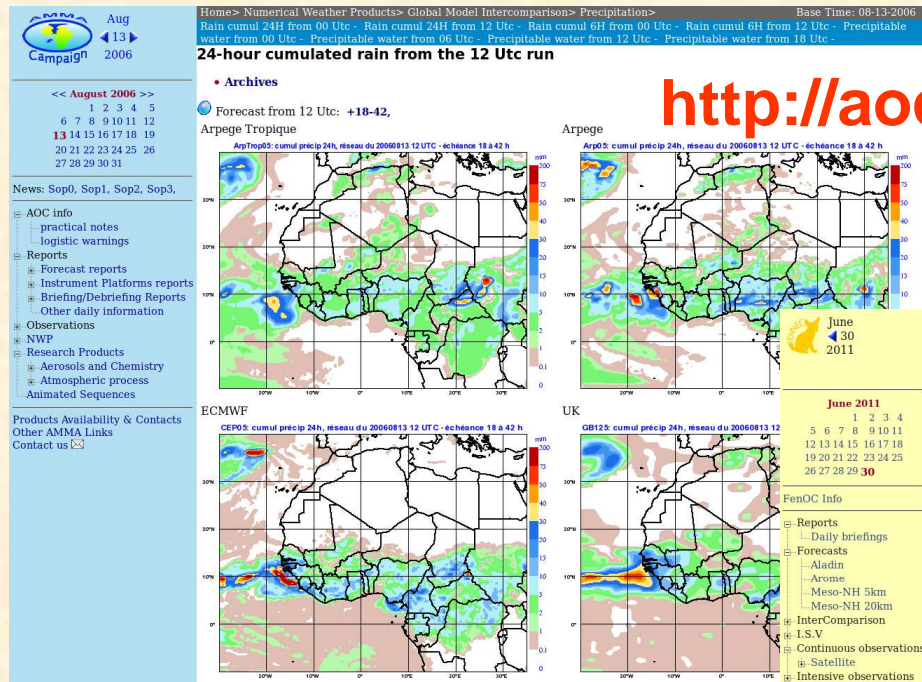
Quick look display websites

AMMA SOP 2006

<http://aoc.amma-international.org>

FENNEC juin 2011

<http://fenoc.sedoo.fr>



Home>

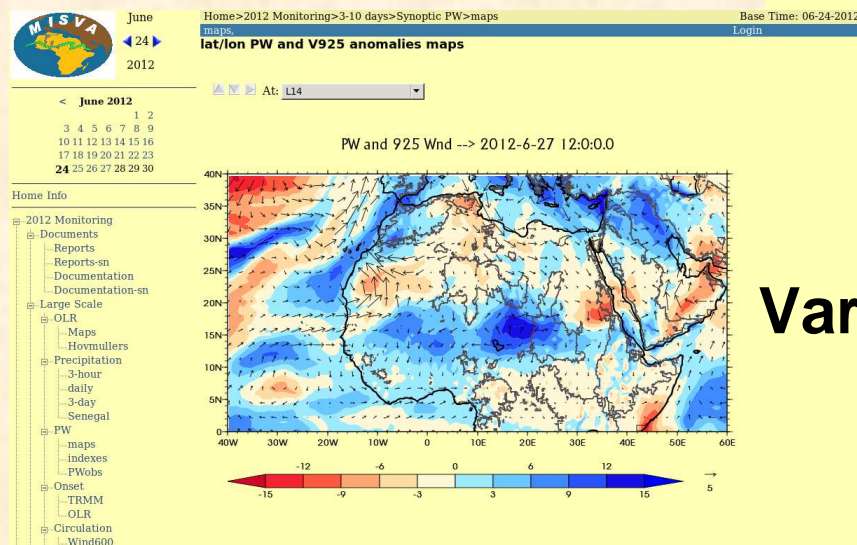
Fennec Operating Center (FenOC)

current day: 2011-Jun-30

Base Time: 06-30-2011

<http://fenoc.sedoo.fr>

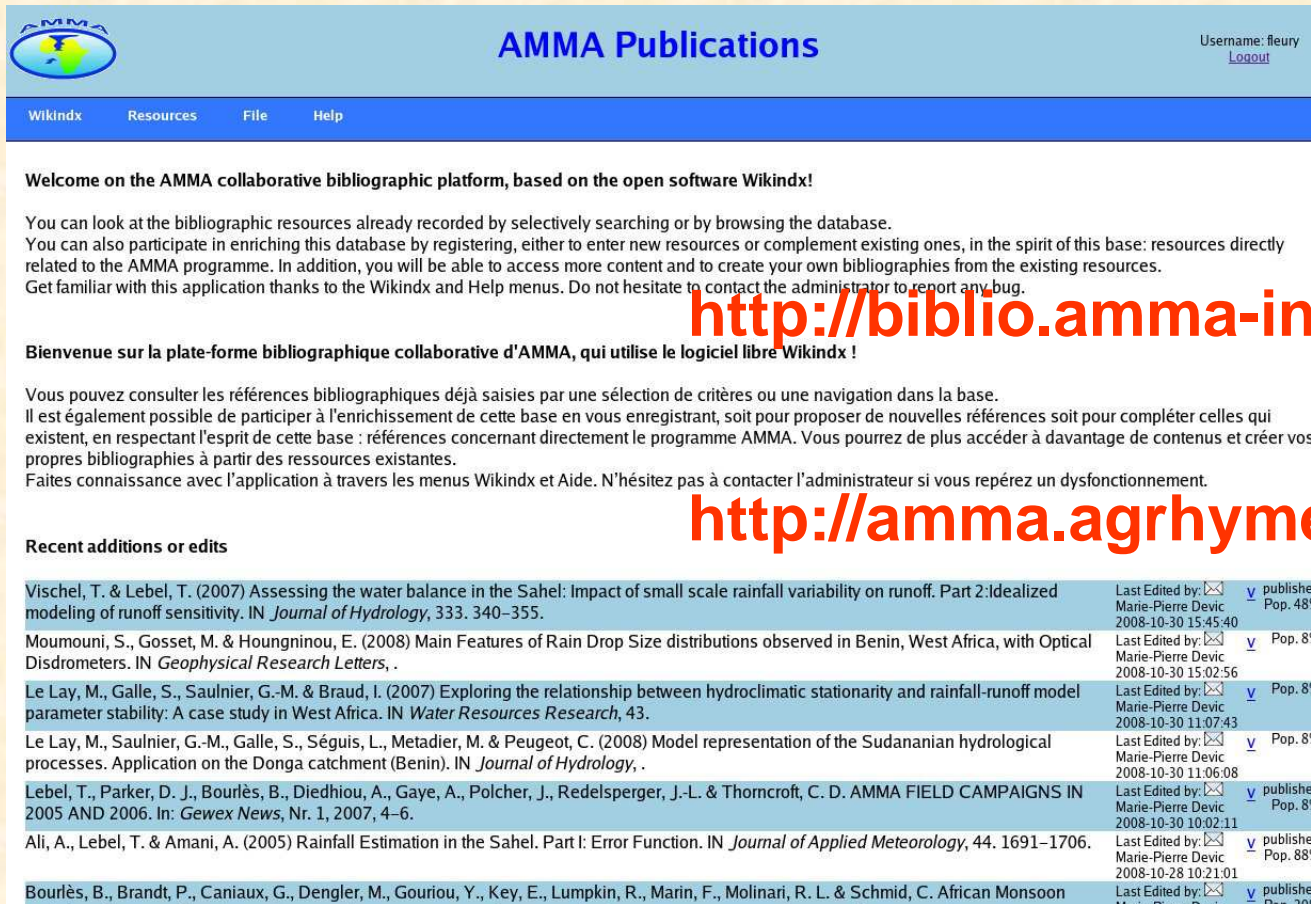
Reports			
Briefing/Debriefing Reports			
Forecasts			
ALADIN forecasts	AROME forecasts	Meso-NH 5km	Meso-NH 20km
InterComparison			
Intercomparison: Precipitation and Precipitable Water			
Intra-seasonal variability (ISV) Monitoring			
ISV Observations	Precipitable Water	Outgoing Longwave Radiation	
Heat Low and Sahelian modes	Hovmüller Indexes	Maps	
Precipitable Water mode	Precipitable Water and Vorticity Indexes	Hovmüller indexes	
Continuous observations			
Satellites Images	Meteosat IR 3.9 µm Meteosat IR 10.8 µm Meteosat VIS 0.6 µm Meteosat WV0.62 µm	Meteosat RGB Dust Meteosat RGB AirMass Meteosat RGB Day Microphysics Meteosat RGB Natural Colors	Modis Terra AERONET Subset's Modis Aqua AERONET Subset's
Intensive observations (June 2011)			
Supersite Spain	Backscatter lidar	Photometer	
Aircraft	Falcon 20		



Monitoring of the IntraSeasonal Variability over Africa 2011, 2012...

<http://isv.sedoo.fr>

Collaborative bibliographic database



AMMA Publications Username: fleury [Logout](#)

[Wikindx](#) [Resources](#) [File](#) [Help](#)

Welcome on the AMMA collaborative bibliographic platform, based on the open software Wikindx!

You can look at the bibliographic resources already recorded by selectively searching or by browsing the database. You can also participate in enriching this database by registering, either to enter new resources or complement existing ones, in the spirit of this base: resources directly related to the AMMA programme. In addition, you will be able to access more content and to create your own bibliographies from the existing resources. Get familiar with this application thanks to the Wikindx and Help menus. Do not hesitate to contact the administrator to report any bug.

Bienvenue sur la plate-forme bibliographique collaborative d'AMMA, qui utilise le logiciel libre Wikindx !

Vous pouvez consulter les références bibliographiques déjà saisies par une sélection de critères ou une navigation dans la base. Il est également possible de participer à l'enrichissement de cette base en vous enregistrant, soit pour proposer de nouvelles références soit pour compléter celles qui existent, en respectant l'esprit de cette base : références concernant directement le programme AMMA. Vous pourrez de plus accéder à davantage de contenus et créer vos propres bibliographies à partir des ressources existantes. Faites connaissance avec l'application à travers les menus Wikindx et Aide. N'hésitez pas à contacter l'administrateur si vous repérez un dysfonctionnement.

Recent additions or edits

Vischel, T. & Lebel, T. (2007) Assessing the water balance in the Sahel: Impact of small scale rainfall variability on runoff. Part 2: Idealized modeling of runoff sensitivity. IN <i>Journal of Hydrology</i> , 333. 340–355.	Last Edited by: Marie-Pierre Devic 2008-10-30 15:45:40	y published Pop. 48%
Moumouni, S., Gosset, M. & Houngrinou, E. (2008) Main Features of Rain Drop Size distributions observed in Benin, West Africa, with Optical Disdrometers. IN <i>Geophysical Research Letters</i> , .	Last Edited by: Marie-Pierre Devic 2008-10-30 15:02:56	y Pop. 8%
Le Lay, M., Galle, S., Saulnier, G.-M. & Braud, I. (2007) Exploring the relationship between hydroclimatic stationarity and rainfall-runoff model parameter stability: A case study in West Africa. IN <i>Water Resources Research</i> , 43.	Last Edited by: Marie-Pierre Devic 2008-10-30 11:07:43	y Pop. 8%
Le Lay, M., Saulnier, G.-M., Galle, S., Séguis, L., Metadier, M. & Peugeot, C. (2008) Model representation of the Sudanian hydrological processes. Application on the Donga catchment (Benin). IN <i>Journal of Hydrology</i> , .	Last Edited by: Marie-Pierre Devic 2008-10-30 11:06:08	y Pop. 8%
Lebel, T., Parker, D. J., Bourlès, B., Diedhiou, A., Gaye, A., Polcher, J., Redelsperger, J.-L. & Thorncroft, C. D. AMMA FIELD CAMPAIGNS IN 2005 AND 2006. In: <i>Gewex News</i> , Nr. 1, 2007, 4–6.	Last Edited by: Marie-Pierre Devic 2008-10-30 10:02:11	y published Pop. 8%
Ali, A., Lebel, T. & Amani, A. (2005) Rainfall Estimation in the Sahel. Part I: Error Function. IN <i>Journal of Applied Meteorology</i> , 44. 1691–1706.	Last Edited by: Marie-Pierre Devic 2008-10-28 10:21:01	y published Pop. 88%
Bourlès, B., Brandt, P., Caniaux, G., Dengler, M., Gouriou, Y., Key, E., Lumpkin, R., Marin, F., Molinari, R. L. & Schmid, C. African Monsoon	Last Edited by: Marie-Pierre Devic	y published Pop. 20%

1200 references,
including full text
publications.

<http://biblio.amma-international.org/>

<http://amma.agrhymet.ne/ammaBiblio/>

Please register, use and document your publications.

Suggestion: may be used to archive and/or
disseminate document corpus?

AMMA Information System Future

- A set of tools to be used, developed, improved depending on **your** needs and support.
- Please use all the services.
- Submit us your data management needs for existing datasets and new project proposals
 - Funding programs often require a data management strategy.
 - Development costs reduced.
 - Specific data policies during the reserved access period.

AMMA Information System Future

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 - Specific data policies during the reserved access period.

African Monsoon Multidisciplinary Analyses



African **Multiproject** Multidisciplinary Analyses