



ALGERIAN SPACE AGENCY

الوكالة الفضائية الجزائرية

Space Tools and Solutions for Monitoring the Atmosphere in the Sustainable Development

United Nations/ Austria/ European Space Agency

GRAZ, 11-14 september 2007



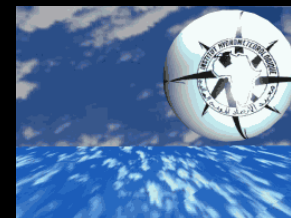
Plan

- Monitoring the atmosphere at national level
- Monitoring the atmosphere in the National Space Program
- Projects



Monitoring the atmosphere at national level

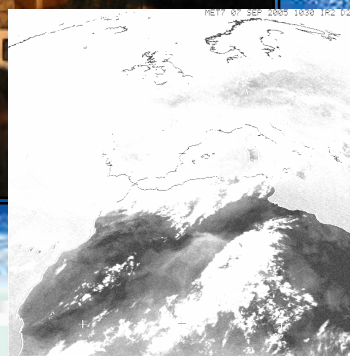
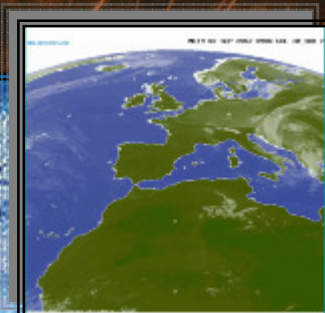
National Meteorological Office



The Institute of Hydrometeorology of research and training (IHFR)



The Global Atmosphere Vigilance Centre (VAG)

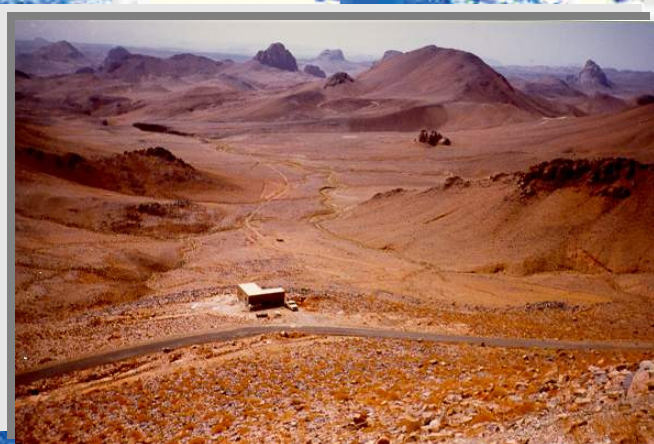




Monitoring the atmosphere at national level

Site of Tamanrasset city:

- Atmospheric disorder (October 1987)
- Total Ozone (april 1994)
- Solar and atmospheric radiation:
Continous mesurment of Direct, Global,
Diffuse (September 1994)
- UV-B radiation (january 1997)



Site of Assekrem :

- Surface Ozone Concentration (March 1997).
- Greenhouse gas Concentration.
- Aerosols Concentrations



Monitoring the atmosphere at national level

An inspection network of air quality (SAMASAFIA) was set up by the Ministry of environment



SAMASAFIA



Air quality rating:

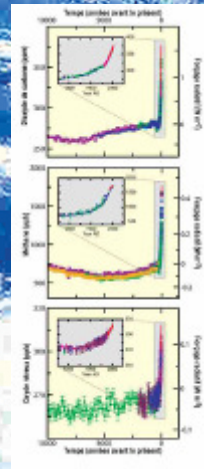
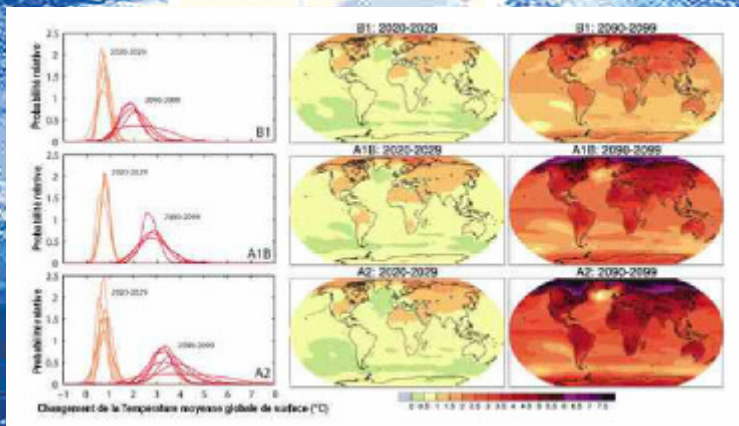
- Characterise the global quality of air of Algiers city
- pollution levels measured during the day are obtained from different stations installed around the city
- This rating shows the pollution discharged from different emission sources (cars traffic, industries, construction sites...etc.).



Monitoring the atmosphere at national level



- National agency of climatic change (ANCC)(created on september 2005) which is under the supervision of the ministry of environment.
- This agency aims to insert the climatic change issue in the development plans and to contribute on the protection of the environment.



In addition, the ANCC is in charge to lead information actions, awareness campaign, study and synthesis related to greenhouse gas emission, climatic change adaptation, mitigation of their effects and socioeconomical impacts.



Monitoring the atmosphere in the national space program

□ Algerian Space Agency (ASAL) has implemented a national space program covering the horizon 2020

□ The objectives to be achieved of this program are to put the space tools in the service of the economic, social, cultural development, which is an aid instrument for a sustainable development and reinforcing of the national sovereignty,

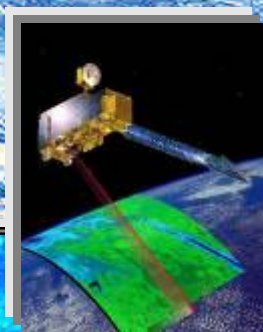
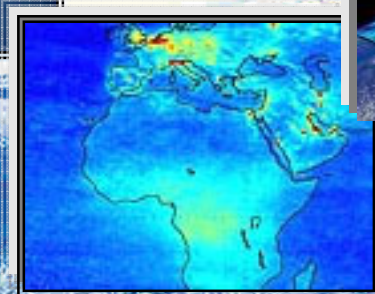
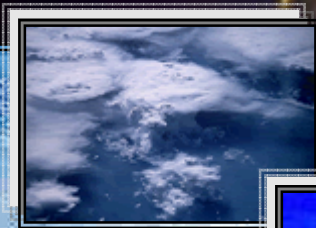
□ This program depends on:

- Human competence to be identified and strengthened,**
- Logistics and infrastructures to be set up and exploited,**
- Space systems to be realized and exploited,**
- Competent specialized institutions in the space technology field and their applications**
- National industry.**



Projects

- **02 projects related to the atmosphere measurement carried out by researchers team from the Space Techniques Center (CTS)**



CTS Researchers

Team :

- ABOURA Radia**
- MEGA Nabil**
- ALLAM Abdelfathi**
- Guen Karim**



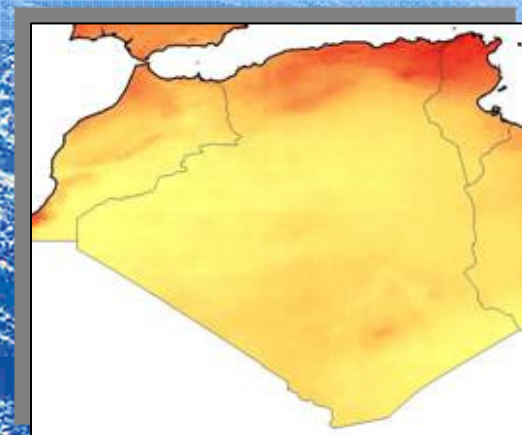
Projects

- ❑ **Project 1: “the contribution of the remote sensing for the detection and the quantification of the environmental changes”.**
- ❑ **Project 2: “Synergy of ground radiometry and satellite imagery for the quantification of the aerosols and the physical characterization of the hydrique assessment of an experimental area”**



Projects

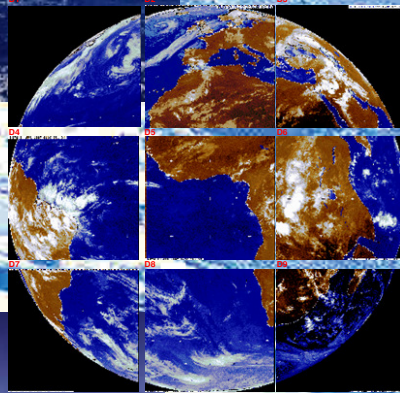
- **Project related to the development of renewable energies `solar energy`, is carried out by ASAL, CDER (renewable energies development center), Ministry of energy and other national institutions concerned by this topic.**





Projects

□ The main objective of this project is to implement a solar information system at national level.



- This system will allow the access to the dynamic values of the various components of the solar radiation (global, direct and diffuse).
- The results will be obtained from models established and validated on existing reference stations or stations to be installed;



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الوكالة الفضائية الجزائرية

**International Workshop
Climatic Changes and Africa adaptation
Space technologies role -
Algiers(Algeria) les 22, 23 et 24 Octobre 2007**

Organised by :

Algerian space agency (ASAL, Algiers, Algeria)

**African regional center of science and space technology in french language
(CRASTE-LF, Rabat, Maroc)**

Association of research on Climat and Environment (ARCE, Algérie)

Le GIP MEDIAS France (Toulouse, France)