



Concours d'entrée au Cycle Supérieur
Session Octobre 2011

2011

Epreuve : Anglais			:
Date : Vendredi 14 Octobre 2011	2011	14	:
Durée : 02 Heures - Coef. : 2	02 :	-	02 :

Satellites to face water problems

1. Across and within Jordan, Tunisia, Morocco and Lebanon, water levels in reservoirs and rivers, rainfall and soil humidity will soon be detected by satellites high overhead. This new view of water systems will allow these countries' authorities to monitor local and regional drought and flood conditions, track evaporation from lakes and water reservoirs, and even estimate future water supplies and agricultural crops.

2. In the past, information on water has come from people and equipment on the ground. But collecting data in this field is often expensive and difficult to gather and verify. Satellite images can actually provide a unique view, across mountains and borders, and provide it almost instantly.

3. In the region of North Africa and the Middle East, water is the main problem on the way. Less water supplies have a major impact on agriculture and the environment. A continuous water supply is also essential for city life. Cities are growing in size and population throughout the region. Because of climate change, experts predict an increasingly dry future. It is estimated that rainfall in many parts of the region will decrease by over 20% during the next century. And as water resources dry up, competition for it will get more intense.

4. With the satellite data, working across borders, regional authorities will be able to work from the same information, enhancing cooperation and efficiency. Cooperation in tackling some of the area's water issues is essential, particularly with close countries.

5. Using satellites will make available the data needed to answer important questions that Arab farmers, urban planners and ministers, among others, think of every day: 'How much of the water I used on my fields am I

losing to evaporation?' 'How is this impacting my crops?' 'Which cities are exposed to extreme floods?'

6. By providing the tools and data to help answer these questions, it will become possible to make more informed decisions on the way that water and agriculture are managed every day.

7. This represents an exciting opportunity and a real forum for the multiple nations to work together and share their experiences and findings.

8. Jordan, for example, will focus on identifying areas that are exposed to drought both currently and historically. Detailed analysis will also help experts predict rainfall in areas exposed to droughts, and so enable communities to better prepare and protect themselves and their crops and animals. Early predictions of agricultural crops are key to facing food shortages.

9. Lebanon will use the satellite data to track the impact of increased temperatures and reduced rainfall on changes in local snow cover. Early predictions of changes in snow cover are an important indicator of the change in water available to springs, rivers and aquifers. The new technology will also help predict droughts and will be able to predict naturally occurring forest fires by measuring pictures of thermal heat on the ground.

10. The first task in Morocco is for experts to measure water use and availability. For the past 40 years, Morocco, as most other countries around the world, has seen higher than average temperatures and lower than average rainfalls because of climate change. Scientists fear that Morocco faces major droughts. The new satellite imaging will map those potential changes and their impact.

11. In Tunisia, satellites that can measure changes in the amount of water in large aquifers will be used to determine the impact of agriculture on ground water. Experts in Tunisia will do this key research in collaboration with their colleagues in neighboring countries.

COMPREHENSION: (8.5 pts).

1– Read the text, then answer the following question in your own words: what does the mission of satellites consist in doing? (1.5 pt.)

2 – Read the text, and then give 6 adjectives to describe the information given by satellites. (1.5 pt- 0.25 pt each)

3 – The text identifies 2 major natural changes that the world is facing, what are they? (1 pt - 0.5 pt each)

4 - Indicate the country concerned by each one of the following statements (Jordan, Lebanon, Morocco or Tunisia). (1 pt. - 0.25 pt each)

- a- To care about mountains change.
- b- To avoid the over-exploitation of water.
- c- To ensure food security.
- d- To estimate the quantity of water

5 - According to the text, why is using the satellite data important for the following categories of people. (1.5 pt - 0.5 pt each):

- a- Arab farmers,
- b- Urban planners
- c- Ministers

6 – Politically, the water issue may be a source of conflicts, as a source of collaboration between countries. Find 2 indications in the text to confirm this. (1 pt - 0.5 pt each)

7 – Countries manage the water issue on a long term basis. Find 4 indications in the text to confirm this. (1 pt - 0.25 pt each)

LANGUAGE: (7.5 pts)

1 – Find in the text terms having the same meaning as the following: (0.75 pts – 0,25 each)

- a- To forecast :
- b- Frontiers :
- c- Presently :

2 – Find in the text terms having the opposite meaning as the following: (0.75 pts – 0,25 each)

- a- Abundance :
- b- Distant :
- c- Underneath :

3 - Fill in the blanks with the right terms: (1 pt- 0.25 pt each).

- Unlike - although – despite – however .
- Satellites are not a cheap project; **(3-a)**, the concerned states adopted this project. But, **(3-b)** some experts supported it, some politicians still had doubts about its efficiency; **(3-c)**

these doubts, the project was carried on successfully; **(3-d)**
politicians, experts have their own view of the project based on scientific results.

4 – Re-write the sentences as indicated: (1.5 pt, 0.5 pt each)

a- Satellites will make available the data needed.

- The data

b- Satellites that can measure changes in the amount of water in large aquifers will be used to determine the impact of agriculture on ground water.

- Last year, satellites that

c- They must catch this exciting opportunity.

- In the future, they

5 -Ask a question about the underlined terms. (1.5 pt - 0.5 pt each)

a- Information has come from technicians.

b- Experts' opinions are needed.

c- The new satellite imaging will map those potential changes

6 – Use the right term or expression (1 pt - 0,25 each)

a- Countries look forward to (increase / increasing) water supply.

b- They may be classified according to (those / that) criteria.

c- Water policy relies on different (axis / axes).

d- They shouldn't mind (to share / sharing) information with others.

7 – Use the right preposition when necessary: (1pt - 0,25 each)

-Our policy consists **(7-a)** two main pillars; they will be presented later **(7-b)** details. But, as for now, let me answer **(7-c)** your questions. My answers will mainly deal **(7-d)** the difficulties faced.

WRITING: (4 pts)

- What can we do to reduce differences between regions in Tunisia ? (8 lines).



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CORRIGE

COMPREHENSION: (8.5 pts).

1- The mission of satellites consists in *collecting information about all the phenomena in relation with water and detecting the evolution of water supply, whatever its form (rainfall, snow, rivers, underground water, ...)*

2 - The information given by satellites is: *cheap, unique, instant, useful, precise, detailed, exhaustive, ...*

3 - The text identifies 2 major natural changes that the world is facing; these are:

- *Higher temperature*
- *Lower rainfalls.*

4 - The countries concerned by each one of the following statements are:

- a- To care about mountains change: *Lebanon*
- b- To avoid the over-exploitation of water: *Tunisia*
- c- To ensure food security: *Jordan*
- d- To estimate the quantity of water: *Morocco*

5 - Using the satellite data is important for the following categories of people, as follows:

- a- *Arab farmers : they can optimize the use of water in agriculture and avoid evaporation.*
- b- *Urban planners : they can avoid floods in cities and take the necessary preventive measures.*
- c- *Ministers : they can take the right decisions in the right time.*

6 – Politically, the water issue may be a source of conflicts, as a source of collaboration between countries.

- *A source of conflict : competition for water will get more intense.*
- *A source of collaboration: working across borders, regional authorities will be able to work from the same information, enhancing cooperation and efficiency. Cooperation is essential, particularly with close countries. This represents an exciting opportunity and a real forum ...*

7 – Countries manage the water issue on a long term basis. The indications are :

- *Estimate future water supplies... (paragraph 1)*
- *In the past, information... (paragraph 2)*
- *Experts predict a dry future (paragraph 3)*
- *During the next century ... (paragraph 3)*
- *Jordan, ... both currently and historically...(paragraph 8)*
- *For the past 40 years ... (paragraph 10)*

LANGUAGE: (7.5 pts)

1 – Find in the text terms having the same meaning as the following: (0.75 pts – 0,25 each)

- a- To forecast : *to predict*
- b- Frontiers : *borders*
- c- Presently : *currently*

2 – Find in the text terms having the opposite meaning as the following: (0.75 pts – 0,25 each)

- a- Abundance : *shortage*
- b- Distant : *close*
- c- Underneath : *overhead*

3 - Fill in the blanks with the right terms: (1 pt- 0.25 pt each).

- Unlike - although – despite – however .
- Satellites are not a cheap project; (3-a) *however*, the concerned states adopted this project. But, (3-b) *although* some experts supported it, some politicians still had doubts about its efficiency; (3-c) *despite* these doubts, the project was carried on successfully; (3-d) *unlike* politicians, experts have their own view of the project based on scientific results.

4 – Re-write the sentences as indicated: (1.5 pt, 0.5 pt each)

- a- Satellites will make available the data needed.
- The data *needed will be made available by satellites.*

- b- Satellites that can measure changes in the amount of water in large aquifers will be used to determine the impact of agriculture on ground water.
- c- Last year, satellites that *could measure changes in the amount of water in large aquifers would be used to determine the impact of agriculture on ground water.*
- d- They must catch this exciting opportunity.
- e- In the future, they *will have to catch this exciting opportunity.*

5 -Ask a question about the underlined terms. (1.5 pt - 0.5 pt each)

- a- Information has come from technicians.
 - *Who has information come from ?*
- b- Experts' opinions are needed.
 - *Whose opinions are needed ?*
- c- The new satellite imaging will map those potential changes
 - *What will the new satellite imaging map ?*

6 – Use the right term or expression (1 pt - 0,25 each)

- a- Countries look forward to (increase / increasing) water supply.
- b- They may be classified according to (those / that) criteria.
- c- Water policy relies on different (axis / axes).
- d- They shouldn't mind (to share / sharing) information with others.

7 – Use the right preposition when necessary: (1pt - 0,25 each)

-Our policy consists (7-a) of two main pillars; they will be presented later (7-b) in details. But, as for now, let me answer (7-c) (nothing) your questions. My answers will mainly deal (7-d) with the difficulties faced.

WRITING: (4 pts)

- What can we do to reduce differences between regions in Tunisia ? (8 lines).

- *1 pt for the content: relevance, argumentation, ...*
- *1 pt for the range of vocabulary, grammar, accuracy,...*

- *1 pt for the structure: coherence, transition,...*
- *1 pt for the mechanics: punctuation, spelling, ...*