

# Sea & Space

## NEWSPAPER Competition for School Students in the United Kingdom!



*Man has explored the Oceans for thousands of years. Now we are just beginning the fantastic exploration of the Space that surrounds us. You are invited to produce your own newspaper about the continuing voyage of discovery. Join this competition and win a trip to the Expo '98, the World Exposition in Lisbon, where you will meet friends from all over Europe! Or win the Super-Prize that will take you to the ESA Spaceport in Kourou and to the site of the world's largest telescope, the ESO VLT!*

We invite groups of young people of secondary school age to produce a newspaper on the theme SEA and SPACE.

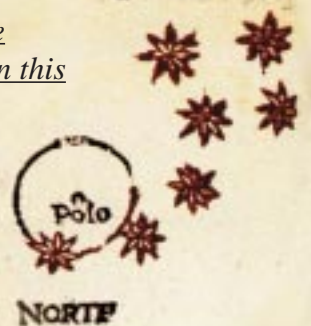
The sea and space have much in common. Which links do you think are the most important ones?

You should look back and write about famous navigators, you should write about the current methods of navigation and you should look forward to developments hardly imagined. What was the role of water in ancient times? And today? Your team may also describe how you have used the data from the ERS satellite, made available over the WWW during the "Sea & Space" programme.

More information available at:

- <http://www.eso.org/seospace>
- <http://www.esa.int/seospace>
- <http://www.algonet.se/~sirius/eaee/seospace>

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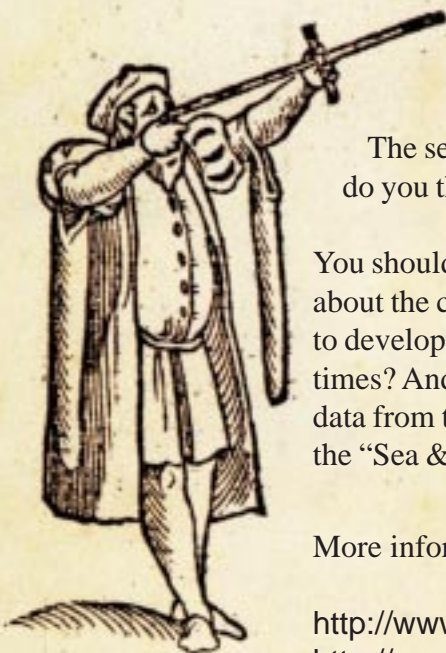
**THIS CONTEST IS OPEN  
FOR YOUNG PEOPLE AGED 14-19**



EUROPEAN WEEK  
FOR SCIENTIFIC AND  
TECHNOLOGICAL CULTURE



**ORIZONTE**



## Rules for Participation

### 1. Participation

A) Eligible for participation are residents of the following European countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Ireland, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

B) The contest is divided into two groups:

- **Creating a poster (for pupils aged 10–13).** This is expected to be an individual or small-group project; it does not have to be a school project. The posters (or a selection of the entries) will be displayed at Lisbon.
- **Creating a newspaper (for pupils aged 14–19).** It is expected that this will be a school-based project and a team effort, accompanied by one teacher. The best entries win a prize and will, if possible, go on the “Sea & Space” WWW page, so that they can be accessed by all Internet-connected participants.

C) A team may comprise (up to) three pupils and one teacher (Newspaper contest).

D) Whereas teams may consist exclusively of pupils, no team may have more than one teacher as a member.

E) Excluded from participation are: Members of the International Steering Committee and their relatives, members of the national jury and their relatives, staff members of the European Space Agency (ESA) and their relatives, staff members of the European Southern Observatory (ESO) and their relatives, officers of the European Association for Astronomy Education (EAAE) and their relatives, staff members of DG XII of the European Commission and their relatives.

### 2. Subject of Contest (Newspaper Competition)

The task is to write about Sea and Space and all possible links/parallels between them and, wherever possible, partly based on own experiences. The entries may thus contain reference to work done with the available ERS images, astronomical measurements (positions: doing a shadow stick and clock experiment to find latitude and if possible, longitude of the school; the Moon: phases and tides, etc.). However, this is not obligatory.

### 3. Size and Format

#### 3.1 Poster Competition

- A) The poster must be A3 or A2 in size
- B) Participants must include their name(s) and age
- C) It must be possible to fold the poster into an envelope
- D) Participants must enclose a large stamped addressed envelope if they want their work returned).

#### 3.2. Newspaper Competition

A) The Newspaper must be the equivalent of a minimum of 4 A3 pages and a maximum of 8 A3 pages, with illustrations (drawings, photos, graphs).

B) The text must be written in (one of) the official language(s) of the country of residence.

C) Participants must include a completed and signed registration form, including a signed declaration by your teacher that:

- the selection of existing material was done by the individual or group, and
- all original material, design and layout was the work of the individual or group.

### 4. Conditions

The submission must be prepared entirely by the participating group.

A) The contribution must be accompanied by a completed participation form. Any medical condition of a participant that may pose restrictions for the travel to and stay abroad must be reported in writing together with the participation form.

B) The deadline for submission (poster competition) is Friday, June 5, 1998 (date of postmark).

The deadline for submission (newspaper competition) is June 5, 1998 (date of postmark).

C) Entries, including a stamped addressed envelope for return of material, must be submitted to:

**The Sea & Space National Committee  
Association for Astronomy Education  
Burlington House  
Piccadilly  
London, W1V 0NL**

### 5. Judging

A) The entries will be judged by a national jury in the country of residence of the participants.

B) General criteria for the evaluation are:

- Originality and Creativity
- Scientific Accuracy
- Clarity
- Organisation and Presentation of Ideas
- The ability to discuss the subject matter from a multidisciplinary point-of-view (covering space sciences, geophysics, biology, ecology, etc.).

C) Participants are strongly encouraged to include reports on their own projects carried out in connection with the “Sea & Space” programme.

### 6. Prizes

A) The National 1st Prize (**Newspaper Competition, only**) is:

**A 6-day visit to the World Exposition in Lisbon. The right to participate in the “Super Contest” at Lisbon that will take place during this visit.**

B) The National 2nd Prize (Newspaper Contest) (**two for each country**): A set of nicely framed colour pictures (one ERS view from the country of the participants, one of the satellite, one astronomical and one of Ariane, one of the VLT).

C) The National 3rd Prize (Newspaper Contest) (**two for each country**):

A set of ESA/ESO videos; T-shirts for all winners.

D) **Poster Contest Prize (five for each country):**

1 set of ESA/ESO videos for the school and 1 set of ESA/ESO videos for the winners.

E) Winners will be personally notified.

F) **All National Winners are invited to present their work at a public event (the “Super Contest”) in Lisbon. The best presentations will receive the “Super Contest Prizes”:**

- **An invitation to visit the ENVISAT Satellite at the ESA Kourou Spaceport (French Guyana, South America) and**
- **the ESO Very Large Telescope (VLT) at Cerro Paranal (Chile, South America) with associated benefits, e.g. meeting ESA and ESO scientists and officials.**

### 7. Rights

The Organisers reserve the right to unrestricted publication of written texts without fee to the authors. The submitted material is only returned to the authors if a stamped, addressed envelope is included.

### 8. Violation of Rules and Disputes

Violation of these rules leads to the immediate disqualification of the entry.

The deliberations of the jury are confidential.

The decisions by the jury are final and cannot be brought before a court of justice.



A winning entry is likely to cover a variety of topics, possibly including some of those listed here :

- The history of ocean navigation and position measuring techniques
- The current best methods of navigation
- Likely developments in the next few years
- An editorial speculating on the distant future and the effects on mankind of global navigation systems
- An original humorous cartoon about navigation
- An original poem about the Sea and Space
- Navigation in Space and on Earth
- Position determination by astronomical means
- A report on how satellites can monitor the oceans for changes in temperature, the effects of pollution and the height of waves
- A report of an accident at sea caused by poor navigation that lead to pollution problems
- A report on how navigation systems helped in the rescue of sailors from the sea.
- How can one detect water from satellites or with telescopes? How much water is there in rivers and floods, in an ocean, in the Universe?

Your team may also describe how you have used the data from the ERS satellite, made available over the WWW during the “Sea & Space” programme.

## The Sea & Space Programme

The “Sea & Space” programme is carried out in connection with the 1998 European Week for Scientific and Technological Culture, an initiative by the European Commission.

It is a collaborative project between the European Space Agency (ESA), the European Southern Observatory (ESO) and the European Association for Astronomy Education (EAAE), with support of EUMETSAT, GMD (the German National Research Center for Information Technology) and NSC (the Norwegian Space Centre).

This programme is comprised of five interrelated sub-programmes that address some of the connections between Sea and Space in various natural ways and at different levels. It has strong educational components and is primarily directed towards Europe’s middle and upper school students. Nevertheless, it is mostly web-based and will also be of interest to the public.

## The European Week for Scientific and Technological Culture

Set up at the initiative of the European Commission, the European Week for Scientific and Technological Culture is the largest initiative implemented at the European level in the field of the promotion of public understanding of science and scientific and technological culture.

The European Week has the ambition to narrow the gap between the public and science and technology in their different aspects. At the same time, it aims at making European citizens more acquainted with the European scientific and technological cooperation carried out by large specialised organisations (like CERN, ESA, ESO, EMBL, ESRF) and the European Union research programmes; and with science and technology as they are practised, perceived and shown in other European countries.

The European Week for Scientific and Technological Culture serves as a framework for special TV programmes, exhibitions, conferences, contests and electronic networking initiatives. These have been set up jointly by museums, universities, schools, enterprises, science centres and all kinds of organisations dealing with public understanding of science in different European countries.

You may add some of your ideas about parallels between the earlier ocean voyages and the future exploration of space – by remote sensing with the new giant telescopes like ESO’s Very Large Telescope and in-situ measurements by ESA’s satellites on mission in the solar system. Your use of information retrieval by means of modern communication links, in particular the WWW, is encouraged.

For teachers, this project is an excellent opportunity to forge cross-curricular links and a real reason to use the Internet to search for material.

The project is for the spring term and the closing date is Friday, June 5, 1998. We suggest that the work is done by groups of pupils (up to four participants) rather than by individuals.

*Contests similar to this one will be held simultaneously in most European countries. The winning group from each country will be invited to present its work at the EXPO 98 Event in Lisbon in August 1998. Transport and accommodation costs for (up to) three pupils and their teacher will be paid for by the organisers.*

MUST BE COMPLETED BY EACH TEAM MEMBER AND RETURNED WITH THE ENTRY

Team Designation	
Name of School	
Address of School	
Tel. / Fax No. of School	
Name of Team Leader	
Status of Team Leader	
Name of Team Members	
Full Name of Participant	
Address	
Tel. No. / Fax No. / e-mail address	
Nationality	
Sex	
Place and Date of Birth	
Do you plan to pursue higher education?	
If yes, which?	
Relevant Health Information Health problems that may affect your participation in the First Prize travel activities must be mentioned here	
Full Name of Parents (pupils, only)	
Address (if other than above) (pupils, only)	
Tel. No. / Fax No. / e-mail address (pupils, only)	



**DECLARATION OF CONSENT**

(Compulsory if the participant is not yet 18 years old)

*I hereby declare that*

– I am parent/guardian of \_\_\_\_\_  
(Name of participant)

– I give my consent to his/her participation in the contest “Sea & Space”

– He/she has the permission to travel to Lisbon to participate in the Sea & Space Final Event, as described in the official information material about the contest

– He/she has my permission to travel to the ESA and ESO sites in French Guyana and Chile, as described in the official information material about the contest

Place and Date \_\_\_\_\_

Signature \_\_\_\_\_

**CERTIFICATION**

*I hereby certify that*

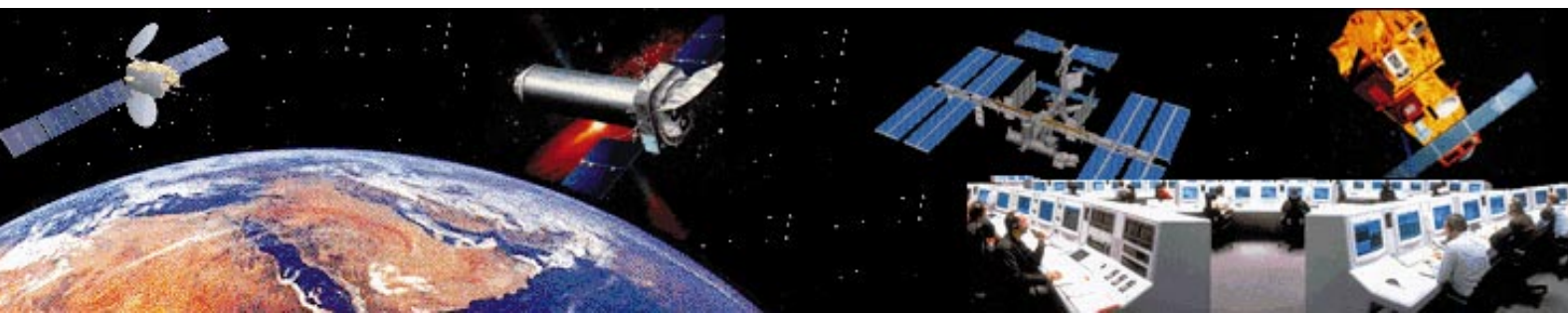
– I am the teacher of \_\_\_\_\_  
(Name of participant)

– the selection of existing material was done by the individual or group as registered above, and

– all original material, design and layout was the work of the individual or group

Place and Date \_\_\_\_\_

Signature \_\_\_\_\_



## The European Space Agency (ESA)

The European Space Agency (ESA) is an international organization composed of 14 Member States which aims to "provide for and to promote, for exclusively peaceful purposes, cooperation among European States in space research and technology and their space applications, with a view to their being used for scientific purposes and operational space applications systems."

To achieve this, ESA pursues a long-term European space policy that would allow Europe to become and remain competitive in the field of space technology. ESA also carries out a policy of cooperation with various partners knowing that pooling resources and sharing work will boost the effectiveness of programmes.



ESA's activities span the fields of science, Earth observation, telecommunications, space segment technologies including the in-orbit stations and platforms, ground infrastructures and space transport systems, as well as microgravity research.

Apart from the scientific programme, which is directed more towards basic research, ESA's work results in industrial developments, and operational products like the launchers of the Ariane family and applications satellites such as ECS, Marecs and Meteosat which are managed by commercial companies (e.g. Arianespace) or international bodies (Eutelsat, Inmarsat and Eumetsat).

## The European Association for Astronomy Education (EAAE)

The purpose of the Association is to improve and promote astronomical education at all levels in all institutions involved in teaching astronomy in Europe.

The aims of the Association refer to those named by the Declaration of the EU/ESO workshop at the ESO Headquarters in Garching on "Teaching of Astronomy in Europe's Secondary Schools" in November 1994. Following these ideas, the particular aims of the Association are:



- To promote a greater interest in, and an awareness of, the rôle of astronomy education.
- To increase the effectiveness of European astronomy education at all levels through research and the exchange of information and experience.
- To be a responsible body able to provide informed and authoritative advice on coordinated European astronomy education.
- To encourage the development of resources for teaching of astronomy.

Membership is open to individuals and institutions concerned with or interested in the teaching of astronomy or in the promotion of astronomy education at all levels. The EAAE maintains its home address in Germany and is registered as a non-profit association under German law.

## The European Southern Observatory (ESO)



The European Southern Observatory (ESO) is the European Organisation for Astronomy. It was created in 1962 to establish and operate an international astronomical observatory in the southern hemisphere, equipped with the most powerful instruments, and to further and organise European collaboration in astronomy in general. Currently ESO has 8 member countries (Germany, Belgium, Denmark, France, Italy, the Netherlands,

Sweden and Switzerland). There is a cooperation agreement with Portugal aiming at full membership for this country.

ESO operates the La Silla observatory in the Atacama desert, 600 km north of Santiago de Chile and at 2400 m altitude. It is one of the world's best sites for astronomical observations and 16 telescopes are now installed here.

A giant telescope, the ESO Very Large Telescope (VLT), is now under construction. It will be placed at Paranal, a 2640 metre high mountain in northern Chile, some 130 km south of Antofagasta. The VLT is expected to become fully operational around the year 2000, and will then be the largest optical telescope in the world.

The ESO Headquarters are located in Garching near Munich, Germany.

## DG XII of the European Commission

(Excerpts from the DG XII Web page)

Under the authority of Mrs. Edith Cresson, Commissioner responsible for science and technology as well as for education and training, Directorate-General XII:

- Develops the European Union's Policy on Research and Technological Development. It supplements national research efforts, strengthens the scientific and technological bases of European industry, and supports the policies followed by the Union in its major fields of jurisdiction (environment, health, education, energy, etc).
- Implements this policy by means of co-operative programmes which associate companies – in particular SMEs – universities and research centres of various European countries in joint projects. These projects are incorporated in multiannual Framework Programmes, including the current Fourth Framework Programme (1994–1998), which has a total budget of ECU 12.3 billion.
- Promotes public knowledge of science and technology, and stimulates debate in this area at a European Level.

In the implementation of these tasks, it is assisted and advised by the European Science and Technology Assembly, which comprises eminent representatives of the scientific community as well as IRDAC, a committee composed of representatives from the highest levels of European industry.

## Other Partners

The Norwegian Space Centre is a foundation cooperating closely with the Ministry of Industry and Energy. The centre guides ESA contracts strategically. Public fundings are utilised to support the development of Norwegian industry and for development and demonstration of space applications, and to optimise conditions for national space research.

Norway's involvement in space is not a goal in itself, but a means of reaching important national targets of short- and long-term industrial growth while supporting space science and satisfying national user requirements.

Headquarters are located in Oslo. Andøya Rocket Range offers services worldwide to scientists wishing to study phenomena in the middle or higher polar atmosphere. Tromsø Satellite station, which is 50% owned by the Norwegian Space Centre, has an international reputation for fast delivery of information from radar satellites.

GMD, Germany's National Research Center for Information Technology, conducts research in Informatics, Communication, and Media. Its headquarters, in Sankt Augustin near Bonn, are housed in Birlinghoven Castle. Its research institutes are in Sankt Augustin, Darmstadt, and Berlin. It is funded mainly by the Federal Republic of Germany (BMBF, the Federal Ministry for Education and Research) and the Länder Berlin, Nordrhein-Westfalen, and Hessen. GMD is a member of the Hermann von Helmholtz Association of German Research Centres.





# Sea & Space

## POSTER Competition for Young People in the United Kingdom!



*Man has explored the Oceans for thousands of years.  
Now we are just beginning the fantastic exploration of the Space that surrounds us.  
You are invited to produce a poster about this voyage of discovery.*

We invite young people to produce a poster on the theme SEA and SPACE.

The sea and space have much in common. How would you illustrate this?

Your poster should look back to famous navigators and should reflect modern methods of navigation.

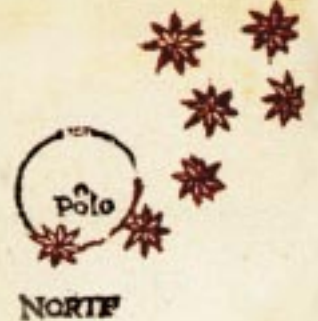
The competition is carried out in the spring of 1998 and the closing date is Friday, June 5, 1998.

Contests similar to this one will be held simultaneously in most European countries. The winners in each country will receive fine prizes and their posters will be displayed at the EXPO '98 in Lisbon.

More information available at:

- <http://www.eso.org/seaspace>
- <http://www.esa.int/seaspace>
- <http://www.algonet.se/~sirius/eaee/seaspace>

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