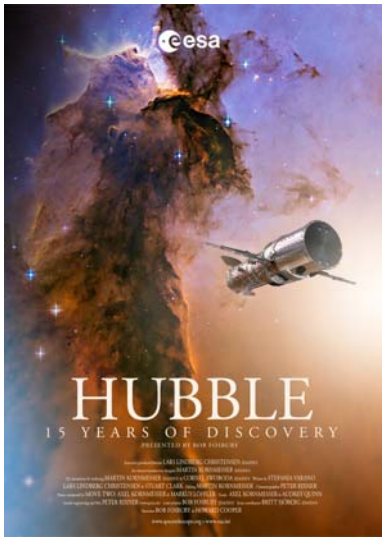

Hubble's 15th Anniversary – Facts about the ESA project

Introduction

24 April 2005 marked the 15th anniversary of the launch of the NASA/ESA Hubble Space Telescope. As an observatory in space, Hubble is a major project that has made an enormous impact both in terms of scientific output and in its immediate public appeal.

Hubble has exploited its unique scientific capabilities in regions where no other instruments can compete. The telescope consistently delivers super-sharp images and clean, uncontaminated spectra over the entire near-infrared to ultraviolet regions of the electromagnetic spectrum. This has opened up new scientific territory and has resulted in many paradigm-breaking discoveries.

Exquisite quality images have enabled astronomers to gain entirely new insights into the workings of a huge range of different astronomical objects. Hubble has provided a visual overview of the underlying astrophysical processes taking place in these objects, ranging from planets in our Solar System to galaxies in the young Universe.

The renowned British astronomer Malcolm Longair writes in the preface to ESA's anniversary book: *"The Hubble Space Telescope has undoubtedly had a greater public impact than any other space astronomy mission ever. The images included in this beautiful volume are quite staggering in the detail they reveal about the Universe we live in and have already become part of our common scientific and cultural heritage."*

The project

Many people agree that the long-term well-being and cultural development of European citizens depends on research and technological development. Information about science and scientists is a vital component of the scientific process, but the competition for attention in today's mass-media market is fierce. Attracting the attention of the younger generation with scientific information is especially difficult.

Furthermore, in Europe, the cultural and linguistic diversity of the member states demands the development of multilingual products.

The 15th anniversary of Hubble's launch presented the ideal opportunity for a dramatic and dynamic project to grab the attention of the public, with a special emphasis on the younger generation, and to further the knowledge of science in general and astronomy in particular. In this project, Hubble was presented as a "science superstar" to make the possible largest impact and reach as many different target groups as possible, including that section of the general population whose interest does not usually include science.

The project consisted of a number of activities, or vehicles to transport these messages:

1. The full-length documentary movie "Hubble – 15 Years of Discovery" issued on DVD and for broadcast TV
2. Events, planetarium shows and press meetings
3. Educational Material
4. Full-colour 120 page anniversary coffee-table book
5. Movie Poster
6. Movie soundtrack
7. Planetarium Show Package for planetarium show production

Read more about the individual activities on the Anniversary web page:
http://www.spacetelescope.org/projects/anniversary/

The movie covers all aspects of the Hubble Space Telescope project – a journey through the history, the troubled early life and the ultimate scientific successes of Hubble. More than half a million copies of the DVD have been distributed, making it possibly the most widely available science documentary ever.

Dr. Bob Fosbury, a scientist from the European Space Agency, who has frequently used Hubble for his own research, presents the movie. Through the movie Bob explains various astronomical phenomena and describes the workings of a major telescope like Hubble. As an active, but approachable scientist himself, he brings an added depth and insight to the material while simultaneously helping to demystify the image of scientists. Bob can perhaps serve as a role model for the younger generation and thereby help to 'dust off' this career choice.

Exploiting the trans-national dimension was seen as a natural and mandatory component of this project. Collaborators and partners from more than 20 EU member states and third countries joined in the collaboration. This truly unique multinational initiative created a multiple win-win situation for everyone involved from the participants in the production to the national partners and the end-users. Eventually a 'snowball' effect brought enough interested partners into the collaboration so that the production costs of the physical products such as DVD, book and exhibition panels were affordable for all involved. For example, some of the partners took out advertisements in large national newspapers and magazines for the DVD, thereby

promoting Hubble and ESA in a way not otherwise possible, and so reaching target groups that we would normally not reach.

Hubble Day events

At more than 60 events all over Europe, Hubble's 15th anniversary was celebrated and the excitement of space shared: "Hubble Day", talks, the unveiling of two large, 3-metre anniversary images, exhibitions and more. Thousands of people heard talks by scientists and saw planetarium shows, images and movies of spectacular beauty. The close dialogue between public and working scientists was an integral part of the project.

Countries where events took place include:

- Austria
- Belgium
- Bulgaria
- Czech Republic
- Denmark
- France
- Germany
- Greece
- Hungary
- Italy
- Lithuania
- Poland
- Portugal
- Slovak Republic
- Spain
- Sweden
- The Netherlands
- UK
- Ukraine

Naturally, most of the EU member states are represented on this list, but it is worth noting the large enthusiasm with which other countries embraced this project and used it as an opportunity to further the interest in astronomy in towns and cities.

Some numbers

- To match the individual cultures and national traditions 17 different DVD labels and 13 different cover versions were produced. Overall 22 different DVD 'packages' were made.
- 518,307 DVD copies of the first edition of the movie were distributed through more than 80 delivery points all over Europe (magazines, newspapers, science centres etc.). This makes it probably the most widely distributed science documentary ever.
- Around 20,000 DVD/CD Soundtrack bundles are sold inexpensively via the company SPV. This DVD/CD Soundtrack bundle even managed to make it into Amazon.de's top 100 CD Chart at number 83. The bundle managed to stay in top 3 of Amazon.de's Top10 Chart for Documentaries for months.

- An estimated 5-10 million viewers or more have watched the movie through various TV channels.

Conclusion

In many ways, the European Hubble anniversary project can be seen as a role model for trans-national science communication and the informal network created here will be exploited for many years to come.

Acknowledgments

We would like again to thank everyone involved in this massive project! The list of people to thank is unfortunately too large for this article, but most are listed in the end-titles of the DVD. This project would never have happened without you!

Appendix: More facts

The book "Hubble – 15 Years of Discovery"

- 120 pages in full colour.
- Light, image-rich design to attract the attention of the less science-attentive part of the population.
- First edition: 5,000 copies.
- Translations are ongoing:
  - Finnish
  - Portuguese
  - Greek
  - Spanish
  - Dutch
  - Italian
  - German
  - Danish

National Partners

22 National Partners were involved in the project collaboration to support and materialise the project in their countries.

1. Academy of Athens, Greece
2. Eugenides Planetarium, Greece
3. Eleftherotypia, Greece
4. Hamburg Planetarium, Germany
5. Sterne und Weltraum, Germany
6. Astronomie Heute, Germany
7. New Scientist, UK
8. ESPACE magazine, France
9. Expresso, Portugal
10. IMAX Tycho Brahe Planetarium, Denmark
11. Danish National Space Centre, Denmark
12. Politiken, Denmark
13. Ursa Astronomical Association, Finland
14. The Finnish National Technology Agency, Finland
15. Centro Multimeios de Espinho, Portugal
16. Fundação Navegar, Portugal
17. Le Stelle, Italy
18. Zeiss Planetarium Vienna, Austria
19. SDC, Germany
20. Armagh Planetarium, UK
21. DeKoepel, The Netherlands
22. Veen Magazines, The Netherlands

Total budget for the realisation of the project

18,000 Euro. This figure does not include labour and the production costs of the physical copies of the products (which were paid by the partners in each country through the described win-win model).

Events

Events locations include:

Austria

1. Planetarium Wien
2. ACA Astroclub Auersbach

Belgium

3. Brussels Planetarium
4. Europlanetarium, Genk

Bulgaria

5. National Polytechnique Museum, Sofia
6. House of the Cinema, Sofia
7. Big Hall of the Bulgarian Accdademy of Sciences, Sofia
8. Public Observatory and Planetarium "Nikolai Kopernik", Varna
9. Public Observatory and Planetarium in Gabrovo
10. Public Observatory and Planetarium "Djordano Bruno" in Dimitrovgrad
11. Public Observatory in Kurdjali
12. Public Observatory "Galileo Galilei" in Silistra
13. Astronomical Observatory in Sliven
14. Public Observatory and Planetarium in Smolyan
15. Public Observatory and Planetarium "Yurii Gagarin" in Stara Zagora
16. Astronomical Observatory in Haskovo
17. Public Observatory and Planetarium in Yambol
18. Astronomical Observatory in Troyan
19. Astro-club in the village Baykal
20. Public Observatory and Planetarium, Hradec Kralove

Czech Republic

21. Hv zdárna a planetárium Johanna Palisy

Denmark

22. IMAX Tycho Brahe Planetarium

France

23. Planétarium de bretagne
24. Terre - Espace - Mer
25. Rencontres Auriolaises Spatiales

Germany

26. Nuremberg Planetarium
27. Augsburg-Planetarium
28. Planetarium Hamburg
29. Museum Am Schölerberg, Natur und Umwelt - Planetarium
30. Bismarckschule Hannover
31. Olaf Kretzer Schul- und Volkssternwarte Suhl
32. Foerderkreis Planetarium Goettingen
33. MUSEUM AM SCHÖLERBERG
34. Natur und Umwelt - Planetarium
35. Zeiss Planetarium Bochum

Greece

36. Eleftherotypia, Athens

Hungary

37. Planetarium of Kecskemét

Italy

38. Citta' della Scienza
39. Roma Planetarium

Lithuania

40. Danute Sperauskiene/VU TFAI Planetariumas

Poland

41. Planetarium Torun´
42. Olsztyn´skie Planetarium I Obserwatorium Astronomiczne

Portugal

43. Fundação Navegar / Centro Multimeios de Espinho
44. Centro Multimeios de Espinho and FNAC, Porto: FNAC NORTESHOPPING –Norteshopping Centre
45. Centro Multimeios de Espinho and FNAC, Lisbon: FNAC COLOMBO – Colombo Shopping Centre
46. Centro Multimeios de Espinho and FNAC, Lisbon
47. Centro Multimeios de Espinho and FNAC, Gaia: FNAC GAIA – Gaiashopping Centre

Slovak Replublic

48. Planetarium and Observatory, Centrum volneho casu, Popradska 86, Kosice, Slovak republic.

Spain

49. Museo de la Ciencia y el Cosmos
50. Ciudad de las Artes y las Ciencias - L'Hemisferic
51. Planetario de Pamplona

Sweden

52. Framtidsmuseet
53. Cosmonova, Swedish Museum of Natural History, Stockholm

The Netherlands

54. Planetron Cinedome
55. Philippus Lansbergen Observatory
56. Observatory Sonnenborgh

UK

57. Staffordshire Astronomical Club
58. Universe Express Starlab
59. The Newchapel Observatory Science Centre
60. The Ulster Museum in Belfast
61. The South Downs Planetarium & Science Centre

Ukraine

62. Astronomical Club, Berdyansk, Zaporozhskaja,