A Selection of Projects submitted to The Rolex Awards for Enterprise 1993

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Montres Rolex S.A., 1211 Geneva 24, Switzerland

HISTORY OF THE ROLEX AWARDS FOR ENTERPRISE

THE ROLEX AWARDS FOR ENTERPRISE 1993 WERE PRESENTED IN GENEVA TO FIVE LAUREATES ON 30 APRIL 1993

The Rolex Awards for Enterprise 1993 were today presented in Geneva to five Laureates whose outstanding projects have earned them the highest honours in this world-wide Awards programme. Granted every three years to individuals who demonstrate a true "spirit of enterprise" and originality in one of the three following categories:

- **Applied Sciences and Invention**
- **Exploration and Discovery**
- **The Environment**

The Rolex Awards provide financial assistance to these Laureates, helping them to implement their projects and ensure that they will be brought to fruition.

Mr. André J. Heiniger, Chairman of the Board and Chief Executive Officer of Montres Rolex S.A., and Chairman of the Awards Selection Committee, announced this year's winners who received prize money totalling Swiss francs 250,000: each of the five Laureates was awarded Swiss francs 50,000 and a specially engraved Rolex chronometer.

World Renowned Selection Committee

The 1993 Selection Committee includes: Mr. Charles F. Brush (United States), Director of the Explorers Club in the United States; Mr. Nils Dahlbeck (Sweden), Member of Honour of the International Union for Conservation of Nature and Natural Resources (IUCN); Mr. Joël de Rosnay (France), Director of Development and International Relations, Cité des Sciences et de l'Industrie; Dr. Santiago Dexeus (Spain), President of the European Society of Gynaecological Oncology; Sir Edmund Hillary (New Zealand), mountaineer; Professor Heisuke Hironaka (Japan), Chairman of Board of Directors, Japan Association for Mathematical Sciences; Mr. Brian Redhead (Great Britain), presenter of the BBC Radio 4 Today programme; Mrs. Ruth Seering (Germany), author, journalist and photographer; Mr. Ragnar Thorseth (Norway), seaman; Professor Umberto Veronesi (Italy), Director-General of the Italian National Cancer Institute.

Said Mr Heiniger presiding at this, the sixth Awards ceremony: "Since 1976 when The Rolex Awards for Enterprise were inaugurated to mark the 50th anniversary of the Rolex Oyster — the world's first waterproof watch — projects from thousands of highly deserving candidates from every corner of the globe have been received and reviewed. It has been a daunting task to select only five winners, and yet the 30 who have now earned the distinction of Laureate combine the unmistakable qualities of imagination, boldness and determination and have acted, often in the face of opposition or indifference".

The five Laureates of The Rolex Awards for Enterprise 1993

Receiving their awards at the ceremony were the five 1993 Laureates:

Nancy Abeiderrahmane, a Mauritanian engineer and dairy manager, was struck by the lack of regular supplies of fresh milk in Nouakchott, the capital of Mauritania. She therefore founded a milk processing plant and equipped it with modern small capacity milk pasteurization machinery. She also established a network of herdsmen in the surrounding desert area from whom she now regularly collects cow's and camel's milk that she processes and sells through retail grocers. She now plans to overcome the dairy's fluctuations in milk supply and demand by expanding her supplies of camel milk and developing the industrial production of camel's milk cheese.

Antonio De Vivo is an Italian physical education instructor and translator who has become one of Italy's leading speleologists. He has already led an expedition which navigated the Río La Venta in Mexico, a wild river flowing along the bottom of a canyon at the base of tall precipitous cliffs, and studied the way the local population might use the river

for its water supplies. He now plans to make a return expedition to Mexico, run down the river once again and, this time, explore the mysterious caves he located high on the cliffs overhanging the river for remnants of pre-Columbian civilizations and, he believes, the entrance to a long-lost city.

Steven Garrett is an American university physics professor who divides his time between his teaching and advanced research, especially in the field of acoustics. He is developing a revolutionary system of refrigeration that does not use the chlorofluorocarbons (CFCs) that are to be found in conventional refrigerators and that are currently threatening the world's ozone layer. His objective is now to finalize the development and testing of his thermo-acoustic refrigerator, in which cold is generated by sound waves from a loudspeaker, so that it can be mass-produced in time for the ban on CFCs that will come into force in many countries in 1995.

Aldo Lo Curto is an Italian physician who, for many years now, has divided his time between his plastic surgery practice in Italy and the provision of health care to the South American Indians of Brazilian Amazonia. He has written an illustrated basic health care handbook specially designed for these Indians, which presents diseases and injuries in both pictures and simple words, and explains the cures that can be given using either the forest plants or western medicine. He now plans to publish and distribute 2,000 copies of this book in Portuguese to teachers and health care personnel working with these Indians in Brazil.

Forrest Mims is an American electronics engineer who has spent his career inventing new instruments and bringing electronics to the public in popular scientific magazines. He has built a low-cost hand-held Total Ozone Portable Spectroradiometer (TOPS) capable of calculating the thickness of the ozone layer by measuring the intensity of the ultraviolet radiation that penetrates down through the atmosphere. He plans to build 50 copies of his instrument to distribute to members of a global ozone measurement network he is organizing so that they can take measurements in isolated areas of the world to supplement the data collected by official measuring stations.

Given the high standard of the projects submitted, the Selection Committee decided to grant, in addition to the five Awards, 36 "Honourable Mention" awards to entrants whose projects were deserving of recognition.

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THE SELECTION COMMITTEE FOR THE ROLEX AWARDS FOR ENTERPRISE 1993

The Selection Committee for The Rolex Awards for Enterprise is composed of distinguished individuals from around the world. These eminent personalities are leaders in their fields who have gained international renown.

Well-qualified for the daunting task of choosing five Laureates and the Honourable Mentions from the hundreds of applicants, the Selection Committee members are replaced for each new round of Awards. This ensures that the widest possible range of disciplines and experiences are brought fresh to the programme every three years. Mr. André J. Heiniger chairs each successive Selection Committee. The following ten personalities comprise the 1993 Rolex Awards for Enterprise Selection Committee.

Chairman:

Mr. André J. Heiniger (Switzerland)
Chairman of the Board and Chief Executive Officer of
Montres Rolex S.A., Geneva

Members:

Mr. Charles F. Brush (United States)
Anthropologist
Past President of the Explorers Club

Mr. Nils Dahlbeck (Sweden)
Ecologist
Member of Honour of the International Union
for Conservation of Nature and Natural Resources (IUCN)

Mr. Joël de Rosnay (France)
Scientist
Director of Development and International Relations,
Cité des Sciences et de l'Industrie

Dr. Santiago Dexeus (Spain)
Gynaecologist
President of the European Society of Gynaecological Oncology

Sir Edmund Hillary (New Zealand)
Mountaineer
One-time New Zealand High-Commissioner
to India, Nepal and Bangladesh

Professor Heisuke Hironaka (Japan)
Mathematician
Chairman of Board of Directors,
Japan Association for Mathematical Sciences

Mr. Brian Redhead (Great Britain)
Broadcaster
Presenter of the BBC Radio 4 Today programme

Mrs. Ruth Seering (Germany)
Author
Journalist and photographer

Mr. Ragnar Thorseth (Norway)
Seaman
President of Ragnar Thorseth Adventures

Professor Umberto Veronesi (Italy)
Surgeon
Director-General of the Italian National Cancer Institute

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Australia (cont.)

15. **Cut-and-break rock excavation for mining**
This project aims to reduce the environmental impact of mining and to increase its profitability by commercializing a new rock excavation method in which the rock is first undercut by the machine, which then inserts a tool into the undercut, so as to break away the undercut rock. By clever machine design, the process is both continuous and much more efficient in energy use than are other mechanical rock excavation methods.
Christopher Alan A. Bunker *(Ref.: 6-A 15535)*
16 St. James Road, Birkdale, 4159 Queensland, Australia

16. **Butterflies of the world (a masterwork)**
This project is producing a systematic catalogue of the known species of Papilionoidea (true butterflies) of the world. This multi-volume work is divided into the five main faunistic regions. It is an attempt to place, in one synoptic set of volumes, a coloured illustration of both sexes of every recorded species, as well as many new discoveries, together with basic text and bibliographic details.
Bernard Laurance d'Abrera *(Ref.: 6-C 15222)*
2/157 Bluff Road, Black Rock, 3193 Victoria, Australia

17. **Sustainable agriculture in the Jerramungup Shire**
This project aims to provide 80 per cent of property owners in this Shire (6,740 km^2) with a property plan to maintain sustainable agriculture by dealing with soil salinization, wind erosion, water erosion and eutrophication of rivers and estuaries. Owners will receive a plan for fencing out remnant vegetation, cropping according to soil type, stock management, rehabilitation of saline and eroded areas by earthworks, etc.
Carolyn Florence Daniel *(Ref.: 6-C 16278)*
Memorial Road, Jerramungup, 6337 Western Australia, Australia

18. **Evidence of a geological link between India and Western Australia**
This project will carry out geological research in the Khasi, Garo and Shillong hills areas of Meghalaya, India, to substantiate the hypothesis of the contiguous nature of south-western Australia and North Eastern India within Gondwana. Detailed geological research will be carried out by sampling for subsequent dating, searching for fossils in sedimentary cover sequences, and carrying out palaeomagnetic studies.
Lyal Bayton Harris *(Ref.: 6-B 15327)*
Department of Geology, University of Western Australia, Nedlands, 6009 Western Australia, Australia

19. **Studying Australian rain forest beetles and their ecological role**
This long-term project is researching the taxonomy, biology, life-histories, conservation and distribution of Australian beetles (Coleoptera) with special reference to those belonging to the major families of the leaf beetles (Chrysomelidae), longicorn beetles (Cerambycidae) and the jewel beetles (Buprestidae). The data collected will be disseminated to both scientists and the general public.
Trevor J. Hawkeswood *(Ref.: 6-C 15213)*
49 Venner Road, Annerley, Brisbane, 4103 Queensland, Australia

20. **Preserving uniforms, arms and equipment of Australian regiments**
To preserve Australia's military heritage, some 22 troops from 18 Australian Light Horse Regiments have been reformed as historical troops since 1988. Members range from 15 to 98 years of age, all are totally dedicated, and over 300 can parade authentically equipped and mounted. The 5th Light Horse Regiment has established its own museum and plans to bring the whole collection and its historical records under one roof.
Angus Finlay Hutton *(Ref.: 6-B 16196)*
Sindia Red Sindhi Stud, Scrubby Creek Road, MS:115, Gympie, 4570 Queensland, Australia

21. **Muscular and skeletal traction in orthopaedic treatment**
This project has developed a compact, lightweight, adjustable constant-tension recoil traction unit and support equipment for body or limb traction to simplify treatment and eliminate patient discomfort in orthopaedic treatment. The project envisages a flexible single-application system for use under a wide range of conditions specifically directed towards the needs of patients and staff.
Donald Alfred Jordon *(Ref.: 6-A 15148)*
124 High Street, Taree, 2430 New South Wales, Australia

22. **Protection of Moreton Bay: Environmental strategy pushed by the State of Queensland, Australia**
This project will be devoted to preserving the flora and fauna in the area of Moreton Bay, Queensland, Australia, including any recreational or industrial developments. It will involve: reserving the area for wild life protection; protecting the foreshore of the islands; controlling foreign animal importation and prohibiting the import of cats; restricting the size of the dog population; and protecting dugong colonies.
Marcel Maurice Morain *(Ref.: 6-C 16310)*
Conservation and Bush Rescue Association, 13 Curtin Street, Bethania Waters, 4205 Queensland, Australia