Colin J Simpson - A Profile

IUGS Councillor

Colin Simpson was born in 1941 and in his final years of High School he was awarded a “Free Place” scholarship to attend the University of Melbourne and in 1962 he graduated Bachelor of Science in geology. He commenced work with Carpentaria Exploration Company the mineral exploration subsidiary of Mount Isa Mines Ltd. one of Australia’s largest mining operators. During his university studies Colin became very interested in aerial photographic interpretation for understanding geology and geomorphology. As a result, in 1968, he was accepted into a position in the Photogeology Group of the Federal government Bureau of

Mineral Resources, Geology and Geophysics (BMR) based in Canberra. However, within 4 years of Colin joining the BMR the realm

of aerial photographic interpretation changed dramatically with the development of new remote sensing technology such as airborne radar imaging, and the launch in 1972 of the Earth Resources Technology Satellite (ERTS-1).

At that time, given the new technology developing and as there were no basic computer digital image processing programs available for most computers, the new domain of digital remote sensing and digital data analysis required close interaction between a relatively small group of specialists across Australia. This grew to include Australian government research agencies such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO), private mining company research groups, and international research groups (such as the

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USGS) and space agencies. The research and development of digital image processing programs developed by this informal group were significant in the development of such computer programs that are available today.

In 1982 Colin was appointed a Senior Research Scientist in the Remote Sensing Group, and in 1989 a Principal Research Scientist – a position he occupied until 1992. During that time he was also appointed to various acting positions such as Acting Leader of the Regolith Research Program, which researched the extensive surface deep weathering in Australia, and also Acting Chief of the BMR Minerals and Land Use Program. During that time he was also appointed to various specialist remote sensing advisory bodies including: the CSIRO Research Aircraft Facility Scientific Advisory Group; the Australian Academy of Science Committee of Australian Space Science; the Commonwealth Remote Sensing Committee; and the Commonwealth Land Information Forum.

As the leading research scientist in the Remote Sensing Group, Colin was also involved in several international projects including:

- a Joint Australian-NASA Shuttle Imaging Radar (SIR B) Project which involved interaction and selection with the NASA team of a site designated the “Prime Site” in Australia for SIR B imaging.
- the US/Australia Joint Scanner Project - a joint CSIRO and BMR sponsored two year international project to bring the NASA Research Aircraft to Australia.
- in 1986 he was invited to co-ordinate the Geology component of an Australian submission to the European Space Agency (ESA) for evaluation of the first European Remote Sensing Satellite (ERS-1) data obtained over Australia.
- in 1987 he was invited to act as the interim co-ordinator for possible Australian Geoscience research of the Shuttle Imaging Radar (SIR C).
- in 1988 he was elected to the Executive of The Australian ERS 1 Science Committee which oversaw the science objectives of Australian and New Zealand involvement in the European Space Agency’s research of results from the first ESA - ERS-1 satellite.
- in February 1988 he was nominated as a

co-investigator of the NASA/JPL (Jet Propulsion Laboratory) EOS Investigation Team to assist in their research involving data from the Earth Observing System International Polar Orbiting Platform program

During the period 1973-1988 Colin was also a member of a specialist team presenting an “Advanced training course in remote sensing for geologists and geophysicists” held annually at the Australian Mineral Foundation in Adelaide. During that same period he also presented training courses and lectures in remote sensing to several universities and higher education institutions. During 1980, as an accredited expert in photogeology and remote sensing, Colin presented several special instruction courses to Indonesian geoscientists in Bandung, Indonesia for the Colombo Plan Indonesia - Australia Geological Mapping Project (IAGMP).

In 1992 the BMR was officially renamed the Australian Geological Survey Organisation (AGSO) and in that same year senior management created a new Division of Environmental Geoscience and Groundwater with responsibility for direction and management of all AGSO research into environmental geoscience issues including land and groundwater resources and degradation assessment, coastal/marine environmental geoscience, and Antarctic geoscience. Colin was appointed the Chief of that new Division - a position he held until 1996.

During that period Colin was also appointed onto several committees including: The Australian Government Representative for Australia on the Coordinating Committee for Coastal and Offshore Geoscience Programs in East and Southeast Asia (CCOP); Council Member on the Land Use Advisory Council for the Cooperative Research Centre for Landscape Environments and Mineral Exploration (CRC LEME); AGSO Representative on the Land Resource Assessment Working Group, and on the National Groundwater Committee; Member of the Land and Water Resources Research and Development Corporation - Groundwater Research Funding Selection Committee; Member of the Working Group established to oversee preparation of a report “Managing Australia’s Inland Waters” for consideration by the Australian Prime Minister’s Science and Engineering Council.

In 1996 Colin retired from the AGSO Division of Environmental Geoscience and Groundwater. During his 6 years as Chief he had developed that Division to the extent that on his retirement it had an approximate operating strength of 60 staff and its budget had increased by 8 times.

During his career between 1962 and 1996 Colin was the author, or co-author, of more than 120 professional papers/reports (published and unpublished). He is one of a select group of scientists to be awarded an Australian Government medal in recognition of his contribution to the Australia Public Service on its Centenary on 19 June 2001.

Following his retirement from government service in 1996 Colin established a private consulting company which operated in Australia and internationally and specialised in environmental geoscience, remote sensing, and natural resource management. He closed that company in 2006 and really retired - though he is still almost as busy. In 2003 Colin was appointed an Adjunct Professor of Environmental Science, in the School of Resource Environment and Heritage Sciences in the University of Canberra.

During the later stages of his career Colin has had considerable involvement with the IUGS. With his extensive background in environmental geoscience in 1992 Colin joined the IUGS Commission on Geological Sciences for Environmental Planning (COGEOENVIRONMENT) as the Representative for Australia and Oceania. In 2000 he was elected the Commission Chairman for the period 2000 - 2004. In 2004 the Commission was renamed to its current title the IUGS Commission on Geoscience for Environmental Management (GEM) in which Colin continued involvement as Information Coordinator from 2004 to 2008 prior to being elected onto the IUGS Executive Committee. As a result of his involvement with these IUGS Commissions he has attended several International Geological Congresses (IGC) and associated IUGS Executive Committee meetings (as an observer) including Rio de Janeiro (2000), Florence (2004), and Oslo (2008). Colin is also a Member of the current IGC Technical Committee planning the next IGC in Brisbane, Australia, in 2012. He hopes to see all readers there.