

## Keeva Vozoff by Roger Henderson (2019)

Before coming to Australia in 1972 to take up the appointment of Professor of Geophysics at Macquarie University, Keeva Vozoff was already well known in the geophysical world. By 1958 he was known as the 'father of 3D EM modeling', and in 1969, the 'father of 2D magnetotelluric (MT) inversion'. These milestone achievements were continued at Macquarie when, in 1975 he became the 'father' of 'Joint Inversion of DC resistivity and MT' and in 1978, '3D MT modeling'.

Keeva was born on January 26, 1928 in Minneapolis, Minnesota where he obtained his first degree, in physics, in 1949. Then followed a MSc in Pennsylvania State in 1951 and a PhD at MIT in 1956. During the period from 1951 to 1991, Keeva applied his talents to many positions in private geophysical companies including Geophysical Service Inc. and academically, he was a visiting Assoc. Prof. at the University of Alberta, the University of California (Berkeley) and at the University of Cologne.

In 1981, at Macquarie, with his characteristic drive and enthusiasm, he established the Centre for Geophysical Exploration Research (CGER), such an institute being unique in Australia at that time. As well as EM, it dealt with seismic processing and numerical modeling and by hosting visiting post-graduates from many countries, produced outstanding research results. Keeva retained the chair at Macquarie until 1991 and continued to be active in research at the age of 80. All this and more is summarized in [https://wiki.seg.org/wiki/Keeva\\_Vozoff](https://wiki.seg.org/wiki/Keeva_Vozoff).

Keeva joined the ASEG in 1972 and served on the Executive committee from 1975 as Treasurer and President in 1976. He also chaired conference committees and was awarded Honorary Membership (effective Life membership) in 1989,

for his distinguished contribution to the profession of exploration geophysics through his research and teaching. Until his 90<sup>th</sup> year, Keeva was a regular attendee at monthly Branch meetings of the ASEG and invariably asked a searching question.



At one of the branch meetings, at the age of 89, Keeva met up with Katherine McKenna, President of the ASEG at the time (2017).

Keeva also continued to impress the membership of SEG and in 1985 he was awarded Honorary membership of the SEG (the first to an Australian resident) and in 2009 (at the age of 81) he received the SEG's Reginald Fessenden Award 'for a specific technical contribution in 3D EM modeling and Inversion'.

Keeva's research publications number over 70, many appearing in prestige journals such as the Journal of Geophysical Research, as well as Geophysics and SEG special publications. The particular field of research he is most known for is Magnetotellurics and for that he has written seminal papers such as Ch 8, 'The Magnetotelluric Method', in 'Electromagnetic Methods in Applied Geophysics', v.2 part B, ed. Misac Nabighian, Investigations in Geophysics series, 1991, SEG.

Keeva's international involvement included serving on ad-hoc committees of Soviet-Australia and Indo-Australia

scientific and technical cooperation from 1974 to 1975 and being an honorary fellow of the Association of Exploration Geophysicists of India and an Alexander von Humboldt fellow in Germany.

In a conversation with Keeva recently, he said the part of his research that was the most satisfying to him was the people he worked with. These included Peter Hatherly, Laurie Drake, Kurt Stack and others. Of his many publications he was most proud of the joint inversions of EM and Induced Polarization. Also, he said the best part of his teaching was the involvement with the students.



On a field trip to Lake Lefroy with students in 1985, Keeva appears to be showing them the location of the anomaly without the need for the seismic equipment.

Although not an Australian by birth, Keeva has always been one of the locals thus endearing him to his colleagues and associates. He has been happily married since 1957 to charming and ever supportive Elizabeth and they have four children and six grandchildren.

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Examining the results of the Lake Lefroy field trip with Keeva are from left, Peter Williams (obscured), Dave Robson, Richard Gozdzik and John Coggon.

Roger Henderson  
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