



### **Patricia Doherty – scientist, mentor and manager**

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The leading research topic of the Commission G is the study of the ionosphere in order to provide a broad understanding necessary to support space and ground-based radio systems. Patricia Doherty has devoted a particularly large amount of time to research in this area. Hence, naturally, she took charge of the entire Commission G and later was elected the Vice-President of URSI.

She continuously showed extraordinary scientific and organizational activity in many forums. However, her main focus was the study of the ionosphere using beacon satellite signals. For decades Patricia actively operated in the Beacon Satellite Study Group of the URSI Commission G. For the last twenty years she was a leader of the group, devoted to promoting the promising, young scientist, especially from developing countries, helping them achieving a great start of their careers.

She also held a leading role in the ionospheric space weather community at URSI by creating inter commission groups dedicated to advancements on monitoring, studying, modeling, forecasting, mitigating space weather phenomena and impacts on the near-Earth environment. It has spurred planetary scientists to explore radio tools so vital in investigating planetary ionospheres.

She has also devoted a lot of efforts to the promotion of space technology, including telecommunication and satellite navigation infrastructures. Therefore, the societal interest on space weather information and services as well as the demand of solutions against the ionospheric threats to technological systems are growing rapidly. This is one of the sensitive topics in which the works of Pat Doherty left a significant mark.

At the same time, she shared her excellent scientific knowledge by teaching at Boston College's Institute for Scientific Research (ISR), where she served as a director. She also supported the outreach program of the Abdus Salam International Centre for Theoretical Physics (ICTP) in Trieste, Italy. By co-organizing training activities to foster research on ionosphere and space weather effects on Global Navigation Satellite System (GNSS), she contributed to increase the number of young scientists studying space science in developing countries. She recognized that such actions were especially important for Africa and indeed, the activities carried out at ICTP have been attended by approximately 500 participants, with the majority of attendees from Africa. It must be underlined that Pat Doherty has tirelessly worked to increase the number of women participating in training activities and academic research.

Being one of the leading scientists interested in ionosphere and ionospheric space weather, she was active in several groups such as the advisory space weather working group of the Committee on the Peaceful Uses of Outer Space and the Scientific Committee on Solar-Terrestrial Physics (SCOSTEP) where she served as a scientific secretary. In these organizations, she has always supported the research of pure science but also applications and, above all, the participation of women in science. Her latest idea was to establish a special award for extraordinary women in radio science within the structures of URSI.