

E. Lynn Usery (1951-2022)

In memoriam

Dr. E. Lynn Usery, Chair of the ICA Commission on Map Projections passed away on 22 March 2022. He was a Senior Scientist with the U.S. Geological Survey (USGS) and Director of the Center of Excellence for Geospatial Information Science (CEGIS). His research areas were in theoretical cartography and GIScience, map projections, geospatial semantics and ontology, high performance computing (HPC), and CyberGIS. To recognize his remarkable impact on the field of cartography and GIScience, let me recall a few facts from his career.

Lynn earned his B.S. from the University of Alabama and M.A. and Ph.D. from the University of Georgia. He began work with the USGS in 1977 as a cartographer in the Topographic Mapping Division, at the beginning of the digital transition. During this time, he began the development of automated digital mapping systems for production of printed topographic maps. Working in research, he later accepted faculty positions at the University of Wisconsin-Madison (1988-1993) and the University of Georgia (1994-2005), and has also taught at the university of Missouri, Rolla. In these positions he developed and taught classes in cartography and geographic information science, as well as conducted research in these fields. He returned to USGS and began a cartographic research program that led to CEGIS. As Director of CEGIS he directed the science program and the visions and plans for topographic mapping research. His USGS work and academic research accomplishments included a digital mapping production system, theoretical basis, and implementation for feature-based data models for topographic data, advances in map projections for raster data, topographic feature representation with geospatial semantics, terrain representation, and HPC implementations for topographic data processing and mapping. He published more than 130 articles in the very best journals in the discipline, including Photogrammetric Engineering and Remote Sensing, International Journal of Geographical Information Systems, Cartography and Geographic Information Systems, Geoinformatica, Journal of Remote Sensing, Annals of the Association of American Geographers, and Transactions in GIS. His research interests span from the world of map projections, scale and resolution, spatial analysis, landscape analysis, issues of time, image classification, to semantics and map projections ontology. Lynn's research and scholarly contributions have covered nearly

all aspects of our field. His work has resulted in invitations to lectures around the globe, including Tunisia, Russia, Austria, China, Egypt, Bulgaria, and Croatia.

Some of Lynn's projects at the USGS further illustrate his huge research interests. These include, 125 Years of Topographic Mapping, Map Projections of Raster Data, Data Integration for The National Map, Modeling, Simulation, and Animation of Sea Level Rise, Generalization for The National Map, Developing an Ontology for The National Map, and Rapid Map Projection over the Web.

Professionally, Lynn has served as an editor of the journal *Cartography and Geographic Information Science* and was Director of the *Auto-Carto* series that he helped to re-establish after a gap of many years. He served as President of the University Consortium for Geographic Information Science (UCGIS), the Cartography and Geographic Information Society (CaGIS), and the American Society for Photogrammetry and Remote Sensing (ASPRS). He was a Fellow of CaGIS, UCGIS, and ASPRS, and received the CaGIS Distinguished Career Award in 2012.

He served as Vice-President of the International Cartographic Association from 2015-2019. He was Chair of the Local Organizing Committee and Director of the 2017 International Cartographic Conference in Washington, D.C. Lynn was a Vice-Chair of the newly established ICA Working Group on Body of Knowledge on Cartography (2015-2019).

Lynn was very active in the ICA Commission on Map Projections (CoMP) where he was Secretary (2007-2011), and Vice-Chair (2011-2015). The new CoMP Terms of Reference were proposed to and accepted by the ICA General Assembly in Tokyo in 2019. E. Lynn Usery was appointed new Chair of the CoMP.

As part of his work in the CoMP, we would like to first highlight the development of an on-line, searchable version of the *map projections bibliography*. From the start of its activities in 2003, the Commission put forward as one of its goals to develop a bibliography that can be updated and expanded with new entries by authorized users. The digitization of the bibliography was initiated by the CEGIS of the US Geological Survey as a contribution to the ICA CoMP in May of 2009 and reached a stage of completion one year later when made available on-line.

On request by ICA WG for the International Map Year (2015-2016), a chapter on map projections and reference systems for the book *World of Maps* was prepared by M. Lapaine and E. Lynn Usery and published on the International Map Year website (<https://mapyear.icaci.org/the-world-of-maps-overview/index.html>). The book was written in English and translated into several languages.

The book *Choosing a Map Projection* was published by Springer in 2017. The editors were M. Lapaine and E. Lynn Usery, and the book belongs to Lecture Notes in Geoinformation and Cartography, Subseries: Publications of the ICA. Our collaboration on the book, which lasted three years, was great.

We wrote the article *To the 20th Anniversary of the Commission on Map Projections of the International Cartographic Association (2003-2023)* which was published in Russian in 2020 (Lapaine M., Usery L., Nyrtsov M. V.: K dvadtsatiletyu komissii po kartograficheskim proektsiyam pri Mezhdunarodnoi kartograficheskoi assotsiatsii (2003–2023). *Geodesy and Cartography = Geodezia i kartografia*, 81, 9, pp. 44–52.

We have met at many conferences and scientific meetings. I would especially like to emphasize his participation in conferences organized by the Croatian Cartographic Society. He participated in person in the 15th International Conference on Geoinformation and Cartography held in Zagreb, Vodnjan / Dignano, Pula / Pola, Brijuni Islands, Croatia and Venice, Italy in 2019. He participated online in the 17th International Conference on Geoinformation and Cartography in 2021 with a presentation on Map Projections Knowledge and Semantic Technology. In his last message sent just a few days before his demise, he wrote that he planned to come to Croatia in September this year and participate with a paper at the 18th International Conference on Geoinformation and Cartography.

In his last e-mail he sent me just five days before he passed away, he wrote: “FYI, some of my plans for workshops for CoMP in 2022, assuming I can travel. I am planning workshops for several conferences this year, in person assuming we are allowed to travel, including the 8th International Conference on Cartography and GIS in Nessebar, Bulgaria; the International Conference on Geoinformation and Cartography in Croatia; EuroCarto in Vienna, Austria; and AutoCarto 2022 in Redlands, CA. I am planning a tutorial on Map Projections as an introduction to the Workshops followed by two or three of research presentations.” He was full of enthusiasm, but unfortunately his plans were unexpectedly stopped.

We have lost a dear and good colleague and friend. We will remember him as an extremely calm, kind, well-meaning and caring person.

Miljenko Lapaine