## **Importance of Surveying Education**

## Earl F. Burkholder, PS, PE June 15, 2011

These comments are incomplete but represent present personal attitudes and impressions regarding the status and future of the surveying profession. Additional evidence may be cause for changing my belief on any item. The important thing is not what I think but what the reader thinks and is willing to share with others. Hopefully subsequent discussion will enhance our collective wisdom and contribute to a stronger profession better equipped to serve society.

1. The surveying profession includes many diverse aspects and utilizes many different talents. Whether engaged in data collection/logistics, middle management/computing, research/innovation, or policy/business issues, competent individual performance is highly valued and not to be denigrated. It is likewise inappropriate to denigrate the efforts of those working in a related discipline who don't share our particular insights. Building a personal, professional, or organizational reputation on the foibles of others is viewed as futile. Given appropriate education and dedication, the surveying profession can be enhanced as we collaborate and build on the collective talent of all members. Translation – let's work together and not beat up on those who disagree with us.

2. I have worked diligently for the surveying profession and the profession has been very good to me personally. Thank you! But, that is not the point. I'll admit that I do what I do for selfish reasons. The fact is I enjoy math, computers, geometry, history, learning, and participating in activities that have a positive impact on society. Others have different motives (maybe just earning a living) for participating in the surveying profession. Regardless of our motives, we need to identify and discuss those issues and activities that make a positive contribution to both society and to our profession. I am suggesting that such visioning is a critical element to defining the future we all want and that education (containing both depth and breadth) is essential to achieving those goals. Professional leaders are to be commended for extensive discussions and visioning related to the re-organization of our professional organizations but the point I wish to make is that an unequivocal commitment to education is essential for the survival and ultimate success of the surveying profession. Translation - development of the SBOK document is critical and raising the bar on professional competence (education) is absolutely essential to the survival of the surveying profession.

3. Surveying proudly enjoys a reputation for making enormous contributions to the orderly development of land and resources, both in the United States and around the world. Our profession is diverse and touches many facets of modern society. So much so that past successes may, in fact, become the source of our demise. With current technology the modern surveyor can now "do everything spatial." The problem is, so can everyone else. The digital revolution has profoundly altered the way maps are made and greatly expanded the function of "location" in our society – witness the use of "Google Earth." Site development and construction are largely automated under the auspices of machine control. Geographic information is now stored electronically in huge data bases (not flat files on paper) and accessible to everyone, building interiors are rendered digital via Building Information Modeling (BIM) technology, and establishment/ retracement of boundaries on the face of the earth is reduced to following a GPS unit to a pre-determined

## Benchmarks

coordinate location. Yes, there is still a function for surveyors and the surveying profession – but I'm confused, what is it? Although not exclusive, a common characteristic of how others handle spatial data is that most of the activities have been reduced to technician functions. Using equipment manuals and push-button procedures, productivity has soared and many surveyors have gotten on that train in order to survive. On the surface, "no problem – that's business." But, the surveying profession needs much more than logistical savvy to compete successfully in the broader arena of professional services that includes standards, specifications, contracts, policy, research, and administration. Translation – unless surveyors demonstrate the ability and willingness to participate in the global economy on an equal basis with other disciplines and professionals – surveying as we know it (at least in the U.S.A) will die.

4. Philosophically, I avoid being critical of anything unless I have something better to offer. That is true in this case as well. I would love to see the surveying profession discuss, embrace, adopt, and provide global leadership in realizing the enormous benefits available from looking at the generalized characteristics of 3-D digital spatial data. Yes, many have heard it before, but I am referring to the Global Spatial Data Model (GSDM). Pertinent links and additional information can be found on the Global COGO web site. Translation – pay attention to the 3-D concepts being promoted for the past 15 years.

- A. Global COGO, Inc. web site
- B. List of EFB publications
- C. Challenge for all spatial data users
- D. Comments focused on content of SBOK



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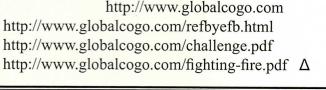
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