

Editor's Corner



www.TheAmericanSurveyor.com

Volume 1, No. 3 May/June 2004
© Cheves Media LLC

PUBLISHER Allen E. Cheves
allen.cheves@chevesmedia.com

EDITOR Marc S. Cheves, LS
marc.cheves@chevesmedia.com

ASSOCIATE EDITOR Joel Leininger, LS
ASSISTANT EDITOR Jacalyn Cheves

CONTRIBUTING WRITERS

Dan Beardslee, LS	Jeff Lock
Silvio A. Bedini	Dan Martin
Joseph Bell, LS	John Matonich, LS
Joe Bettit, LS	Jerry Penry, LS
J. Anthony Cavell, LS	Al Pepling, LS
Paul Cuomo, LS	Mark X. Plog, LS
James J. Demma, Esq., LS	Walt Robillard, Esq., LS
Dr. Richard L. Elgin, LS, PE	Fred Roeder, LS
Fred Henstridge, LS	Gavin Schrock, LS
Chuck Karayan, LS	Laurence Socci
Gary Kent, LS	Angus W. Stocking, LS
Wendy Lathrop, LS	Patrick Toscano, LS
Thomas Liuzzo, LS	Rj Zimmer, LS

The staff and contributing writers may be reached via the online Message Center at www.TheAmericanSurveyor.com.

GRAPHIC DESIGN LTD Creative, LLC
WEBMASTER Joel Cheves

The American Surveyor (ISSN 1548-2669) is published 8 times a year: January/February, March/April, May/June, July/August, September, October, November, and December by Cheves Media LLC. Editorial mailing address: 905 W. 7th St., #331, Frederick, MD 21701. Tel: (301) 620-0784.

The American Surveyor is a publication of Cheves Media LLC, 905 W. 7th St., #331, Frederick, MD. No part of this publication may be reproduced in any form without the express written permission of the publisher. Opinions and statements made by the writers and contributors do not necessarily express the views of Cheves Media LLC.

Subscriptions prices in the U.S.: \$24.95 for 1 year; \$39.95 for 2 years. Canada: 1 year \$34.95 US; international subscriptions \$64.95 per year (Airmail), U.S. funds prepaid. Back issues (subject to sufficient stock) are available for \$4.95 + S/H.

Discounts for schools, libraries, dealers, and other bulk subscriptions are available. Commissions are available to approved sales agents, and point of purchase providers. Please contact the Publisher if you'd like to distribute *The American Surveyor* from your location.

New subscription inquiries and all other address changes should be sent to *The American Surveyor*, P.O. Box 4162, Frederick, MD 21705-4162. Fax: 301-695-1538. Subscribe online @ www.TheAmericanSurveyor.com

*Change of Address: For address changes, please include your mailing label and your new address. Please allow 4-6 weeks, or make changes online.



Made in the United States of America

Spring Meetings



amidst the cherry blossoms that signal spring and attract hundreds of thousands of visitors to Washington, D.C., mapping and GPS professionals also got together for the spring meetings of CGSIC and MAPPS.

CGSIC

At Civil GPS System Service Interface Committee (CGSIC) meetings, the military side of the GPS community meets the federal civilian side. Among the discussions about the future of GPS and GPS policy, the near-term effects on the precise user community can be discerned. The spring meeting yielded good news for GPS users. First, after four years of negotiations, the disagreements between the U.S. and the European Union over at least one of the proposed Galileo signal structures has, at least for now, been ironed out: at a meeting in Brussels in February, an agreement was made to use the same frequency on L1. This will pave the way for receiver manufacturers to build boards that work all over the world instead of building different boards for use in Europe and the U.S. Previously, the EU had indicated that it would use a different signal structure, one that would have interfered with GPS military signals, and enormous pressure was brought to bear on the Europeans due to our common defense needs. Given the current political disagreements between Europe and the U.S., the announcement was good news indeed.

Those of you who recall the early-day nighttime schedules that were required for making GPS observations would agree that the CGSIC announcement of the new GPS L2C signal was another source of good news. Over the years, as we have watched the usefulness of GPS increase as more satellites were added I perhaps was not alone in assuming that we would need many satellites with the new signals for them to be useful. But this is not so. For receivers equipped to receive it—as of the meeting, Trimble and Javad—the new signal will be useful from the first satellite on. Tom Stansell also pointed out that by 2011, 18 satellites with L2C will be aloft, just in time for the next Solar Max. Stansell added, “The next Solar Max might be more severe than the one we just went through, and L2C will aid in ionospheric corrections.” Additionally, L2C will work with existing antennas, thereby making archived measurements still useful.

The agreement with EU paves the way for the possibility of as many as 60 satellites broadcasting the same signal. Larry Hothem from USGS pointed out that the existing L1C/A signal will not be affected by another new signal, L1C. L1C is but one of a whole host of new signals that will be incrementally implemented as we move toward GPSIII. In addition to the existing L1C/A, L1P/Y and L2P/Y signals, future new signals will include L1M and L2M (M=military, C=civilian), L2C, L1C, and L5. These last three are the new signals for us. Hothem indicated that future signals will contain as much as three times more power, making them useful for quicker signal acquisition and working under tree canopies.

In an NDGPS report, we learned that 81 sites are now operational, providing 87 percent of CONUS with single-station coverage. Dual-coverage exists for 55 percent of CONUS. Eight more stations have been funded, and even though

funding has been abysmal, enough existing GWEN sites are available that twice that number could be installed if there was funding. With the installation of nine more stations by the end of 2005, nationwide single-station coverage will exist.

MAPPS

The Management Association for Private Photogrammetric Surveyors (MAPPS) exists to keep its members informed of upcoming contracts for their services, assure adequate funding for important surveying, mapping and geospatial programs, and hold the federal government's feet to the fire regarding privatization of federal work. The MAPPS conference brought together representatives of all the major federal agencies that contract work to the private sector, including BLM, USDA, EPA, USGS, NOAA, the Census Bureau, NASA, Department of Homeland Security (DHS), NGA (National Geospatial-Intelligence Agency, formerly NIMA), Naval Facilities Engineering Command, and Corps of Engineers. A common theme throughout the day was good news, bad news: a higher percentage of money is being made available to the private sector, but budgets are shrinking. Of these agencies, DHS appears to be the most promising. Ryan Cast, DHS Chief Geospatial Information Officer, said that the budget (\$5 million in FY05) will swell to \$1 billion for the years FY06 through FY10. Of this, 30 percent will be funneled to the private sector.

MAPPS continues to vigorously pursue not only work for its members (including aerial photogrammetry, commercial satellite remote sensing, and GIS firms), but also funding for critical programs such as USGS mapping, and NOAA mapping, charting and coastal services. Barb Ryan from USGS compared national mapping efforts to the interstate highway program started in the 1950s: this is something that the U.S. government should do because it benefits everybody.

Of particular concern to MAPPS is:

- competition from FPI—the federal prison industries (FPI) and its foray

into mapping-related services such as GIS and CADD. In the view of MAPPS, the use of convict labor allows FPI to compete unfairly.

- foreign outsourcing—sending critical infrastructure data offshore for mapping. Of course, balancing the data needs of our own development industry against the desires of terrorists to use the information against us will require careful consideration.
- homeland security—the official MAPPS position is *“It is critical that federal, state and local government officials have a current, common, consistent and compatible GIS to protect critical infrastructure, plan emergency preparedness and execute emergency response.”*
- departments of transportation—MAPPS says, *“Stronger action by Congress and FHWA is needed to reverse the trend toward high-cost, low-efficiency monopolies within state departments of transportation.”*

Additionally, MAPPS fights a constant battle against legislation that would repeal the FAIR Act, as well as other existing law that requires the government to utilize the efficiency and innovation of the free market. To this end, the second day of the meeting was devoted to meetings with legislators on Capitol Hill to present the concerns of MAPPS members.

Saluting a Mentor

In this issue, we travel to Texas to present the second in our new series that focuses on The Fabric of Surveying in America. Austin resident J. Stanley Coalter discusses the “wrinkles” in the fabric that make Texas unique. Most of us are familiar with the two basic surveying systems in the United States: colonial metes and bounds and the Public Lands Survey System. But Texas has its own form of metes and bounds surveying,

and except for West Texas and the Texas Panhandle, parcels resemble the odd-shaped tracts that are common on the East Coast.

I'm also proud to say that Stanley is the person I credit most of all for encouraging me to become a licensed surveyor, and it was in Texas in 1984 where I was granted my first license. Prior to our association, the most attractive thing about surveying to me was the technology that began transforming our profes-



sion in the late 1970s. But it was Stanley who opened my eyes to the fascinating legal aspects of surveying, both in public land states and in the Texas metes and bounds system. Fortunately, Stanley is a continuing education provider in Texas, so his knowledge is being passed on to future generations. The photo of the two of us was taken at the time of the ACSM/ TSPLS show in Galveston a few years back.

Mind Candy for Surveyors

In his new column titled “Everything is Somewhere,” licensed surveyor and writer Angus Stocking offers our diverse group of readers something he calls “mind candy for surveyors.” The column will break away from the conventional topic of surveying, and venture into subjects that, as Stocking puts it, “are bound to appeal to the curious, spatially gifted, unconventional intellects that surveying attracts.” Treat yourself to the first of his articles, which begins on page 42. *A*