

## A Commercial Mapmaker Views the USGS

LAST YEAR, when our Chairman, clean-up batter Andrew McNally III delivered the keynote address to this convention, he cited a by-line from our institutional advertising campaign, "And you thought we just made maps." He then went on to illustrate other elements of our activity. But today, I am here only because we do make maps. Rand McNally is honored to represent another cartographic element. I also mentioned to Rupe Southard that the broad title of my portion of this presentation permitted me to commit almost any crime at the podium and I shall now probably go on to prove that with emphasis.

Charles Whitten yesterday said, in accepting his Honorary Membership award in ACSM, that there were three ages of man: youth, middle age, and "You're Looking Fine." Well, at age 100, we, in the commercial-side will say to the usgs, "Happy Birthday—You're Looking Fine."

I believe that in anyone's book, 100 years establishes a significant level of maturity. It will be reached by precious few of us here today. It tends to be an anniversary reserved for institutions, not individuals. The venerable age of 100 was reached by Rand McNally a few years ahead of usgs. Our centennial was, in fact, celebrated in 1956; we started when the western surveys were being conducted by the predecessors of the Geological Survey. But it was, no mistake about it, the federal government, the War Department and the Interior Department, that had and took the initiative and the responsibility for mapping the West.

The West, too, is where Rand McNally began its activity and concentrated its initial cartographic thrust. Before that, as early as 1795, there were commercially inspired cartographic products. In 1795, Matthew Carey in Philadelphia produced the first atlas in the United States. New York and Philadelphia were, in those early years, the center-points of map and atlas making in this country. But the first of the government-funded westward explorations of Lewis and Clark, then Zebulon Pike, Nicolle's survey of the Mississippi, and Fremont's Oregon Trail in the 1840's pushed back the frontiers,

focused on the nation's vast resources, and stimulated the westward movement of the railways. And now, enter a commercial mapmaker, Rand McNally.

In the period from 1856 to 1872, William Rand and Andrew McNally were busy setting type, printing timetables, and, when things got dull, avoided the Chicago holocaust by hauling their printing presses to the edge of Lake Michigan. By 1872, the rapid expansion of the West caused Rand McNally to establish its cartographic facility and produce its first map: a map of the United States. This would also commence the dependency of *this* commercial mapper on the cartographic exposition of the federal government.

I said a few moments ago, it fell upon the Federal government to open up the west. This was true in cartographical terms as well as others. In 1876, Rand McNally turned its back to the Atlantic Ocean, embraced the West and produced its first atlas, entitled *Rand McNally's Business Atlas of the Great Mississippi Valley and Pacific Slope*. The maps contained in this atlas, made for the business community, were based heavily upon the generation-long effort of the federal government. This very early event in our history, still slightly preceding the formal amalgamation of the western surveys by the 45th Congress in March of 1879, sets the general framework of relationship between the usgs and other federal mapping activities, and the commercial mappers of this country.

Commercial mappers are mainly adaptive mappers. They may be brave in their execution of cartographic design. I think they should express this talent—or secure it. It would be inappropriate for usgs frequently to alter its design standards for its topographic mapping series. It would be equally inappropriate for the commercial cartographers not to seek new standards, tap new sources of design capability, and selectively emphasize and create the special map products which can best meet the needs of the consumer.

In preparing notes for this presentation, I asked our senior map librarian how she saw

the relationship between commercial mapmakers and the USGS. "We could not get along without them," she said. I quote her, "the topographic quadrangles are the basic cartographic source for this country. Absolutely indispensable." And, of course, she is right: they are.

No commercial mapmaker—no serious cartographic creative entity—could exist without the fundamental published map series of this nation. We maintain standing orders for each new and revised sheet. They form the backbone of our cartographic research activities relating to the U.S. and continue to receive endless scrutiny and yield a basic source supply in our publishing of the *Commercial Atlas and Marketing Guide*, the present title of the atlas first produced in 1876 and published regularly ever since, and now also well past its centenary.

A view of the Geological Survey by any commercial mapmaker or even by all of the commercial entities collectively is a macro/micro relationship. But fortunately size differential is functional, not restrictive. There is a complete understanding and respect from the commercial mapmakers who have no ambitions nor false impressions that they should assume the fundamental national mapping program. Far from it, they, perhaps more than the general public, understand the necessity for a complete, accurate mapping program with provision for timely revision. And it is not simply a self-serving position. We recognize how vital to the management and proper utilization of this Nation's natural resources, are the topographic maps in their several series. The scope of funding, material, manpower, and equipment dwarfs dramatically the commercial output.

Having said this, the commercial mapmakers seek and secure a strong measure of cooperation with the Survey. From my experiences, the level of communication which exists in this country between the private and federal organizations is of a greater order than in many other countries. In some parts of the world, the use of basic national mapping materials is complicated through a copyright by the government. This places barriers before the commercial producers which must be resolved through payments of royalty or use fees.

In some other countries, nearly all cartographic output is locked within stringent security restrictions. The access and availability of materials produced by the Survey has been made easy through both the original structure and the ensuing operation

and management of its programs throughout its history.

While we in the commercial sector depend heavily on the Survey and much of its published product, the relationship is not totally one-sided. Because of the commercial mapper's need to convey information in a manner to satisfy the user requirement, it is certainly true that the breadth of map product available from private companies exposes an enormous number of ideas in design, color, emphasis, typography, scale, and content. I am not saying nor even implying that the commercial producers create better or more beautiful maps. But they can and do provide examples of specialized selection and design which may ultimately leave some mark on future Survey publications.

The goals of the Survey and the goals of the private cartographic companies are similar. They are both required to serve the public. One does this by statute. The other performs, if it is successful, by responding to public interests and, we hope, increasingly by creating market need. I do not mean to say that we seek to force a map product on an unresponsive public. But I do feel that it is inherent in a commercial cartographic agency's charter to educate and help form an interest and an understanding in the values of cartographic communication.

It has now been 21 years since the First International Cartographic Association meeting in the United States. It is also important to note that, in this first meeting, there was a co-mingling of interests and expertise from the Survey and other elements of the federal mapping community, civilian and military, with the private, academic, and commercial organizations not only of this country, but from a number of nations abroad. From that time until today, the commitment by the Survey to the international advancement of cartographic expression has been 100 percent. This was epitomized in 1978 when the United States hosted the International Cartographic Association now too large, too diverse, too demanding in logistics to be welcomed and digested by the private cartographic element alone.

This same recognition of responsibility and involvement has been noted in an un-failing manner within the activities of the two societies meeting here today. The commitment evidenced through personal and fiscal support by the Survey can be expressed readily through a review of officers, directors, and convention chairmen of ACSM and ASP. The list is impressive, indeed, and the commitment continues.

Earlier in these comments, I made reference to the topographic mapping program of the Survey. Valuable as these series are to the commercial elements, they do not alone describe the scope of the Survey's cartographic activity.

Perhaps it is the water resource and basic geologic mapping functions which are of the least interest to the broad commercial element. Not because of a lesser quality of execution is this true; it relates wholly to the fact that these map elements supply data which, while of substantial functional value, are of relatively modest practical application to a large segment of our population.

That same statement does not apply when we consider the *National Atlas of the United States*. We recall well, ten years or so in the past, when this project under the direction of Arch C. Gerlach, appeared on the verge of fiscal failure. We were pleased, along with other representatives of the non-government cartographic community, to provide three separate but related functions.

In the first instance, on a scale of chronology, we were asked to participate in planning sessions which studied overall atlas content, distribution of subject emphasis, and map design. At a point when it seemed that budgeting restrictions might strangle the project, we were pleased to aid in recommending fiscal support to permit its completion.

My third element of involvement relates to our creating special maps for the atlas to bring to this National project, the results of some of our own independent research in source, compilation, and design. In a way, this represents one of the more valued inter-relationships between the Survey and the commercial firms. The ultimate result is an invaluable work of cartography for student, private citizen, cartographer, scholar. The work is especially important because it represents the successful combination of skills, user requirements, and interpretation resulting from a full and healthy respect and exchange between the Survey and the commercial mapping elements. It is important to note that the exchange over the years has been voluntary. It is not structured. But, through desire, through this congress, and through understanding of common goals, it works.

Until the recent past, the data-gathering

techniques employed by the Survey and commercial mapping companies were not dramatically different except perhaps in volume. While our particular interests did not include photogrammetric mapping techniques, others in the commercial sector were involved in these activities, but the economy of scale, the sheer magnitude of responsibility, and the funding potential produced new data-gathering capabilities and graphic expressions beyond the capabilities of those in the commercial sector.

Satellite imagery, the Landsat remote sensing capability, are beyond, far beyond, the commercial mappers in the sense of sponsorship, but we will see, more and more, the application of such materials into digestible-sized pieces so that this resource, as with others first created by the Survey, will be managed and presented to the public in a way that will be related to the level and taste of the map user.

If one had to make a single generality about the mapping element of the Survey in its first 100 years of existence, it should be said that the resource of map information is invaluable to the commercial mapping community. It should also be stated that the selection, adaptation, and enhancement functions related to this resource have been, can, and should continue to be best expressed through the commercial community. It is not for the Survey to utilize government-supplied funds in order to test and speculate on the tastes of the general public. Just as the Survey is organized to the responsibility of supplying basic data on physical characteristics of the Earth's surface in graphic and now digital format, so is the commercial firm geared to select, supplement, and create map products to the changing tastes of the map user. There is in this separatism the basis of a healthy respect for the value of the Survey and the work of the commercial supplier.

Will the second century reveal a similar evaluation of the roles of private and federal agency? I take refuge in declaring that review should be the responsibility of another panel, another committee, another time. I hope only that, regardless of execution of presentation—digital, graphic, or more exotic forms—we will still be able to say, "Happy Birthday—You're Looking Fine."