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First Scientific Bureau

The Coast and Geodetic Survey celebrates its 150th birthday this week. It was established on 10 February 1807 when Congress authorized President Jefferson to begin a survey of the islands, shoals, and places of anchorage along the coast, so that ships carrying the nation's trade could navigate safely in time of peace and so that the nation would be protected against invasion in the event of war—this shortly before 1812.

Today no one doubts that accurate nautical charts require careful scientific work and that scientific work costs money. However, the first superintendent of the survey, a geodesist born and trained in Switzerland, faced a less enlightened public. Ferdinand Rodolph Hassler's career is the history of a running battle between a Congress that did not understand the special demands of good research and a first-rate scientist who was able to impress other scientists but unable to talk to the layman.

Hassler wanted, first, to fix by astronomical observations the position of certain key points near the coast and, second, to establish a network of triangulations between these points, and only then to get down to the business of tracing the shoreline and sounding the coastal waters. Congress wanted immediate, palpable results and small appropriations. At one point, having run out of funds in an expedition to Europe to buy a theodolite and other equipment, Hassler returned only to have Congress take the work from him and place it in less capable hands. Fortunately, misunderstandings eventually were resolved, and Hassler's viewpoint prevailed.

Originally the survey was quartered in the Treasury Department, with brief service on two occasions in the Navy; in 1903 it became a bureau in the Department of Commerce and Labor, remaining in the Department of Commerce when the Department of Labor became a separate department. In addition to furnishing mariners with nautical charts, the survey provides fishermen with tide tables, fliers with aeronautical charts, and surveyors with starting points. Charting activities now include the Arctic coast of Alaska, the Bering Sea, and our coastal waters to the edge of the continental shelf. Other scientific investigations of the survey bear on marine currents, compass variations, earthquakes, and magnetic disturbances that affect radio communication.

The Coast and Geodetic Survey has become so much a part of our working government that a sesquicentennial celebration is necessary to bring it to our attention. However, some of the difficulties originally faced by the survey are still with us but in another context and on a much vaster scale. In an atomic age, when pure research can bear directly on the general welfare and common security, we again must ask how a political body is to decide upon appropriations for scientific work and how scientists are to make known their needs. We hope that today's problem of communication will be solved as successfully as it was for the first scientific bureau.—J. T.

