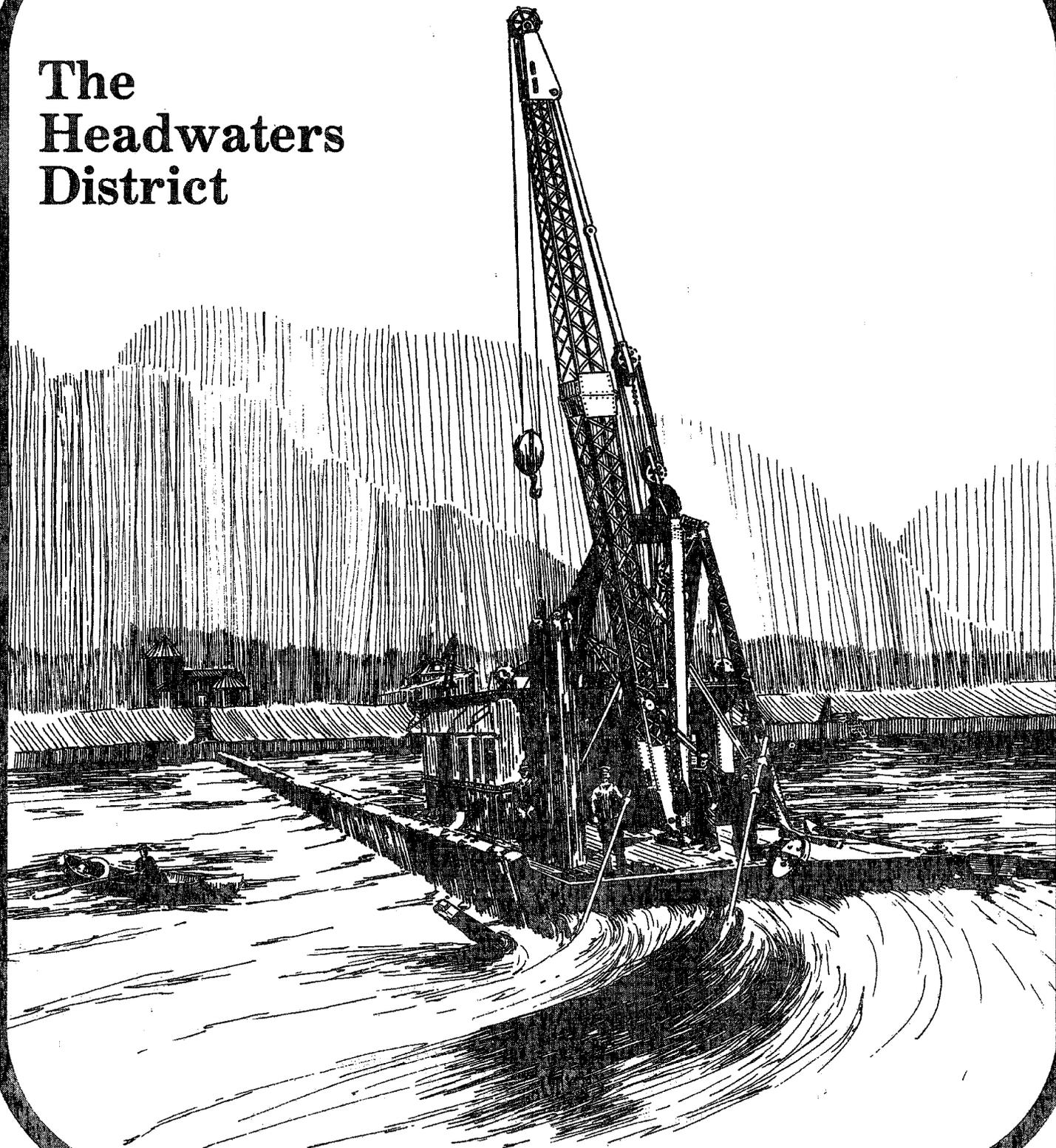


The Headwaters District



A HISTORY OF THE PITTSBURGH DISTRICT, U.S. ARMY CORPS OF ENGINEERS

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Tuesday 5 March 2002

TO Waterways History Buffs

SUBJECT Waterways History Publications, Pittsburgh District, US Army Corps of Engineers

FROM Upper Monongahela Committee for Better Boating
Upper Monongahela River Association Incorporated

My friend and cohort in river matters, Wally Venable, Professor Emeritus, Mechanical and Aerospace Engineering, West Virginia University, loaned me his copy of THE HEADWATERS DISTRICT, A HISTORY OF THE PITTSBURGH DISTRICT, US ARMY CORPS OF ENGINEERS This book is an excellent and fascinating history of the use and development of our nation's waterways, from revolutionary times, up to the Johnstown PA flood of 1977 The book was written by Dr Leland R Johnson, and published in 1979

Unfortunately, this wonderful book is out of print and thus no longer available from the Pittsburgh District However, with the permission of the Pittsburgh District, I arranged for West Virginia University Printing Services to reproduce the book You may order it by calling 304-293-6366, email address is wyprint@mail wvu edu The cost is \$21 25, plus West Virginia residents must add the 6% sales tax of \$1 28 Shipping and handling charges will also apply Also, neither myself or our Mon organizations above benefit from WVU's sale of the book

I also suggest you buy the excellent companion book, THE HEADWATERS DISTRICT ROUNDTABLES, AN EYEWITNESS HISTORY OF THE PITTSBURGH DISTRICT, US ARMY CORPS OF ENGINEERS, 1936-1988, by Leland R Johnson and Jacque S Minnotte, published 1989 Copies are still available from the Pittsburgh District, call 412-395-7500 for ordering information And, when copies of this great book are exhausted, I'll arrange with WVU Printing Services to reproduce it

Finally, here are some websites you might check out The Pittsburgh District site is <http://www.lrp.usace.army.mil> Wally Venable has a browse site with waterways information, <http://www.cemr.wvu.edu/~venable> Specifically, check out Wally's river bibliography web page at <http://www.cemr.wvu.edu/~venable/asa/miss-bib.htm> And, the website for WVU Printing Services is <http://www.ia.wvu.edu/printing/> Finally, for Pittsburgh area recreational boating information, go to <http://www.anchorsaweighmagazine.com> And, from there, check out sites such as Boaters are Voters, and, Pirates of the Allegheny I should also add that Captain Mike Ferris of Pirates fame can attest to the great value of these two books!

Sincerely,



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Mon, 28 Jan 2002 11 10 58 -0800

From

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"Dowling, Richard LRP" <Richard.Dowling@lrp02.usace.army.mil>,

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Mr Strimbeck,

Dick Dowling of our Public Affairs Office forwarded your message to me regarding the reproduction of our history volume, The Headwaters District. I am the librarian for the District, and work in the office where the publication originated. I've checked with my supervisor, and we see no problem with your copying the volume. I apologize for the delay in getting back to you, but we were examining the possibility of having the report reproduced in-house. To date we don't have anything concrete, so I won't hold up your project any longer.

Good luck with the printing, and please let me know when the volumes are available for purchase. Do you know whether they will be done as a soft cover book?

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The Headwaters District

A HISTORY OF THE PITTSBURGH DISTRICT, U.S. ARMY CORPS OF ENGINEERS
By Dr. Leland R. Johnson

FORWARD

This is a history of the Engineers in the headwaters district, - military and civilian. By authority of Congress, the Army Engineers began the task of taming the waters of the Ohio River Basin in 1824. Many of their accomplishments were achieved by trial and error, since the problems that they were asked to solve had never been faced before. I think it appropriate to paraphrase a statement from an individual who, at one time, served the District with considerable distinction. His comment was used in a much narrower context, but I feel sure the reader can sense its applicability to much of the action in this history.

It is interesting and almost thrilling to read of these Engineers and see how they worked out their problems, because in earlier days there were no computers and many of their decisions were worked out on the basis of feeling. Now whether this is good engineering or not, I don't know, but it was the ART, and they practiced it exceedingly well...

The course of history never changes instantaneously. Nevertheless, sometimes there appears to be accelerated periods of transition. The decade of the 1970's may have been one of those periods for the Pittsburgh District. Modernization of navigation facilities on the Ohio River eliminated the last of the wicket dams. The flood control reservoir system was thoroughly tested by Tropical Storm Agnes. Flood plain management was becoming an increasingly important factor in consideration of flood damage prevention. And in a surge of development of recreation facilities, the District took on the task of environmental education directed to school children.

The third century of Engineer activity in the headwaters district must include involvement with the delicate balance between energy demands and environmental protection. Maintenance, repair and replacement of navigation and flood control structures will still be necessary, but attention of the headwaters Engineers may well be directed to additional fields of major importance. A prime concern will be water availability, whether it be for the usage of an increasingly urbanized population or for production of power, - hydroelectric, nuclear, or created by synthesis of fossil fuels. Based on the records of the past, the Engineers of the Pittsburgh District will meet the challenges of the future.

The author has paid tribute to the support provided by my predecessors. I should like to add my own word of appreciation, especially to Max Janairo, whose lot it was to get the project actually started.

JOSEPH A. YORE
Colonel, Corps of Engineers
District Engineer

ACKNOWLEDGEMENTS

ASSISTANCE FROM FORMER DISTRICT EMPLOYEES

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AUTHOR'S PREFACE

The Pittsburgh Engineer District is merely one of many Districts of the Corps of Engineers, United States Army, that direct water resource development and perform other assigned missions throughout the world; yet, it is proper for many reasons to refer to the installation at Pittsburgh as *the* "headwaters district." At Pittsburgh, British and French Army Engineers first met in combat, launching the French and Indian War; and from Pittsburgh, American frontier engineers staged their campaigns during the Revolution to secure the Ohio and Mississippi basins for the United States. Here, Army Engineers began their explorations of the American West, and here, the pioneers boarded their frail craft to begin their voyages to new homes on the frontiers. A reminder of those events is the fact that distances along the Ohio River are measured not in miles above the mouth of the stream, as on other rivers, but in miles below Pittsburgh.

The term "headwaters" refers to the sources and upper waters of a stream, and the Pittsburgh Engineer District is responsible for a region including the Allegheny, Monongahela, and Beaver rivers and their tributaries to their sources and the Upper Ohio River, which is formed by the confluence of its headwater streams at Pittsburgh. The Engineer District includes the westernmost parts of the states of New York, Pennsylvania, and Maryland and eastern sections of West Virginia and Ohio, an area of generally rugged terrain along the western slope of the Appalachians where streams tumble down mountainsides, flowing swiftly toward the Ohio at Pittsburgh and from thence on toward the west. Geographically, the Pittsburgh Engineer District is a "headwaters district."

The Pittsburgh Engineer District was the home of the pioneer marine engineers and waterways shippers. Here were built the first flatboats, keelboats, and steamboats; here the first barges and towboats were built. The District was the cradle of American inland river commerce.

It was natural therefore that the improvement of inland river navigation should begin at Pittsburgh. Here, the Army Engineers undertook their first experiments with waterways improvement engineering, clearing snags and constructing dams in 1824 to open river channels for reliable commerce. So many innovative waterways engineering methods were tried and tested in the Pittsburgh Engineer District that it became the empirical "experiment station" for the entire inland rivers system. Pittsburgh was the "headwaters district" for waterways navigation engineering.

It was at Pittsburgh that the great political and engineering controversies over flood control methods began and were fought out during the twentieth century. To find the origins of the modern multipurpose water resource development mission of the Corps of Engineers, one must look to the history of the Pittsburgh Engineer District.

In the history of the Pittsburgh Engineer District, one also finds many firsts in military construction engineering, - in the engineering of aerospace facilities ranging from biplane aerodromes to moon rockets, and in the multitude of other missions assigned to the Corps of Engineers during the past two centuries. In sum, the District has been the site of so many "firsts" that it clearly is *the* "headwaters district."

The purpose of the author has been to relate the turbulent story of the operations of Army Engineers within the headwaters district against the background of the history of the Corps of Engineers, with some attention to the correlation between Engineer activities and general regional economic and social development. The interests of the general reader, as well as those of the Engineers, have been taken as a basis for the selection of materials.

This study began during the administration of Pittsburgh District Engineer Edward G. West and continued during the administrations of District Engineers Norman G. Delbridge, Max R. Janairo, and Joseph A. Yore, and the author appreciates the support that each has given to the study. Mr. Jacques S. Minnotte, Chief Engineering Advisor in the District during this same period, has been most helpful in his meticulous review of the text. Special thanks are due to a number of individuals retired from service in the Pittsburgh District, who loaned personal papers, described certain incidents, or answered puzzling questions. Their names are listed on another page. It would not be feasible to similarly list the names of the many active employees who surrendered precious time to answer questions, but they also deserve the author's heartfelt gratitude.

Critics may complain that the author has been too sympathetic to the functioning and goals of the Army Engineers. He has observed the work of the Engineers for several years during routine operations and during crises that came after AGNES in 1972 and at Johnstown in 1977, and he admits that he admires their dedication and integrity. He is convinced that "The Corps Cares" slogan is not a mere public relations gimmick.

LELAND R. JOHNSON

ABOUT THE AUTHOR: Dr. Leland R. Johnson is truly the historian of the Army Engineers in the Ohio Valley. He has written histories, now in print, of the Nashville, Louisville and Huntington Engineer Districts, edited historical studies for the Ohio River Division, and composed articles on relevant subjects that have appeared in *The Military Engineer*. This history of the headwaters district completes the cycle - from Cairo back to Pittsburgh.

