PRESIDENT'S MESSAGE

The replies to our membership questionnaire are still coming in. Many thanks! We may try this again in a decade or so, but don't wait until then to drop a note or suggestion to me or the society's officers or committees. One person can make a big difference in a society like ours, and an interest in canals can be combined with almost anything. For example, is there a movie buff out there who can tell us about canal films or videotapes, here or abroad, and how to find copies to show at meetings? Can someone develop a bibliography, or write an overview on American canal archaeology? What about practical hints from your own experience with canal preservation, dealing with legislators, or repairing a canal bank? How about inventing a respectable name for a canal buff? Stamp buffs are philatelists. Some of us are phihogists. Are ACS members philhobians?

I'd like to especially thank everyone who responded to the questionnaire. Judging from the replies, the American Canal Society is doing nicely, thank you. Our primary function as a medium of exchange of canal information is well taken care of by Bill Shank's AMERICAN CANALS, which has received nothing but compliments. It is our other research projects which need a boost, and the response has been most gratifying. I have tried to reply to each one of these, and pass on the information to the appropriate committee. If we don't follow up soon on your offers to help, please keep after us. And remember us when you retire. Several members said they would have more time then, but having "retired" for awhile myself, I'd advise putting canals first on the list, because retirement can be a very busy time!

Many thanks to those who offered to help on Terry Woods' Canal Index Committee, which is gathering basic information on all of the American canals. We'll be getting a lot done with the help of Dave Wahl and Gerald Amstutz in New York, Charlie Petrillo in Pennsylvania, Bill McKeeley in New Jersey, and Tom Meek in Indiana. Terry is updating our list of canals, which also indicates which canals have a write-up in the Canal Index. We'll be sending copies to the ACS membership so you...

(Concluded on Page Twelve)
NEW BOAT FOR THE ERIE CANAL

American Canals
Bulletin of the American Canal Society

"DEDICATED TO HISTORIC CANAL RESEARCH, PRESERVATION AND PARKS"

AMERICAN CANALS is issued quarterly by the American Canal Society, Inc. Objectives of the Society are to encourage the preservation, restoration, interpretation and use of the historic navigational canals of the Americas; to save threatened canals; and to provide an exchange of canal information.

Annual subscription to "AMERICAN CANALS" is automatic with a minimum ACS dues payment of $12.00. Individual copies may be purchased at $3.00.

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NEW LIFE MEMBERS

We salute two of our regular members who have "gone the extra mile" to become LIFE MEMBERS of the American Canal Society. They are: James C. Webster of Fairport, New York, and Carl H. Kloinsi of Dewagiac, Michigan. This brings to a total of fifty-two our ACS members in this very special category!

Via John Hulchansky and Bill McKelvey we have secured the above photo of the "Nightingale II" from Michele A. Brown, its new owner, and president of Riverboat Cruises, Troy, New York. Mr. Brown's account of the boat's history and how he brought it home are as follows:

"Nightingale II" was built in 1964 at the Nolan Shipyard in Erie, Pa. Her dimensions are 64' x 17' x 4' and, as you can see, she is ideal for canals as her height is only 15' from the water at the stack. As far as I know, her origin was as a passenger ferry for the Straits of Mackinac and she has spent most of her time in the Great Lakes and canals. Passenger capacity is 50.

However, a year or so before I bought the vessel, she was owned by the Florida state government and sold to the Chattahoochee Riverboat Co., in Tennessee. They used her for their 1984 season to establish a location in Chattanooga while planning and building a 300-passenger vessel. I bought her in October of 1984 and in February began the trip back to upstate New York. We worked west on the Tennessee River, going downstream through the many Corps of Engineers locks, one of them 94' in a single locking.

At Florence, Alabama we turned south and travelled the just-opened Tennessee-Tombigbee Waterway, the first commercial passenger vessel to pass through, and thence the Black Warrior River to Mobile, Alabama, the Gulf-Intracoastal Waterway to Carrabelle, Florida, across the Gulf of Mexico to St. Mary, Florida, across the Okeechobee Waterway to St. Lucie, up the Intracoastal Waterway to Norfolk, Virginia and on up to New York City and the Hudson River, north 160 miles to our home base on the eastern end of the Mohawk River/ Erie Canal. The trip was 5000 statute miles and took 40 running days.

From our base in Crescent we take passengers on daily sightseeing trips, passing through Lock 7 of the Erie Canal, a 27-foot lift. Evening cruises feature a prime rib dinner. I hope that we may meet all of you one day aboard the "Nightingale II".

Riverboat Cruises' address: 201 Second Street, Troy, New York 12180; Telephone (518) 273-8878.

CANALWAY AT LOWELL

(Concluded from Page One)

the city," explains Barlow, "I see the ability of Lowell to meet the standard of excellence set by places like the new Lowell Hilton Hotel."

Some public groups that are participating in the restorations are the Lowell Historical Park, the Lowell Historic Preservation Commission, the City of Lowell Division of Planning and Development and Historic Board, and the National Middlesex Arts Commission.

The proprietors of the Locks and Canals on the Merrimack River (in operation since 1972) will retain the ability to maintain the canals. The states will have the rights to the canal system for use and recreational purposes.

"This has never been done before, not major restorations anyway," says Barlow. "We (the National Preservation Service) are interested in explaining the significance of the canal system to the city of Lowell."

The historic waterpower system of Lowell and its famous Pawtucket Gehrman hydraulic turbine received national recognition recently when they were dedicated as civil and mechanical engineering landmarks by ASCE and ASME. The entire network of canals at Lowell was nominated for landmark status by the Boston Society of Civil Engineers Section of ASCE.

AMERICAN CANALS, NO. 56 - February 1986
THE UNION CANAL AND THE LEHMANS

A new book, bearing the above title and containing 107 pages of editorial material, notes and sketches, was published in 1986 by the Lebanon County Historical Society, Lebanon, Pa. The author is Dean M. Aungst, who is also author of "The Two Canals of Lebanon County" published nearly 20 years earlier. The book is primarily a record of the continuous efforts of Resident Engineer William Lehman, and later his son, Benjamin Lehman, to keep the Union Canal going during some of its most critical years. It contains excerpts from William Lehman's diary are included; full reports by consulting engineer James Worrall; and numerous engineering sketches of devices and improvements made to the Union Canal, before and after the 1856 enlargement program. A scholarly study, which Union Canal buffs will find of considerable interest. Inquiries may be made to the Lebanon County Historical Society, Lebanon, Pa. 17042.
A CLOSER LOOK AT THE TENN TOM...

By Addison W. Austin

This is the second saga of the adventures of Addison Austin in the incomparable "Yankee Doodle," which we have published. For the first, see AMERICAN CANALS, Number 48, February 1986.

This was an all summer voyage that lasted from early May to mid October 1985 on the trawler-type, pleasure boat, "Yankee Doodle." It included looks at the Tennessee-Tombigbee Waterway, Tennessee River, a bit of the Cumberland River, the Ohio River and a few miles of the Allegheny River. Being a railroad enthusiast, as well as a canal buff, a number of railfan trips were thrown in, most of them not mentioned here, and a good deal of skiing, plowing by a motorcycle and a canoe, and fishing on board.

We had seemed that every boat that wintered in the Bahamas intended to make a trip north on the new waterway. Even more in Florida announced the same intention. Magazine articles added to the excitement. With some concern about crowded conditions in Mobile, Alabama, we anchored out in the lower Mobile Bay in order to arrive in Mobile early enough the next morning for a berth and a shore trip to check up on supplies. This turned out to be an unnecessary precaution, but Mobile Bay provided two viewing surprises: loons and the endangered white pelican, a really large white bird with black wingtips.

Navigation Charts

Charts of the new Tenn-Tom Waterway are not available at marinas in Mobile, so a trip to the Army Corps of Engineers office in the center of the city was in order. Two relatively expensive chart books were required. One book for the Black Warrior River, which starts near Birmingham and flows to Mobile, and one for the new Tennessee-Tombigbee, which leaves the Black Warrior at Demopolis and proceeds north to Pickwick Lake on the Tennessee River.

While in town a side trip to the preserved battleship "Alabama" seemed like a good idea. Very interesting, but perhaps not too different from the "North Carolina" in Wilmington or the "Massachusetts" in Fall River. It is noteworthy that the ships' main guns are pointed toward the north.

Despite N.O.A.A.'s promise of clear weather, a noon departure was under overcast skies through the amazingly busy port of Mobile. We had heard that Mobile's port business was down badly of late and the Tenn-Tom was going to be the needed boost for the economy. Passing through it was hard to believe activity was off. A combination of falling tide and river current did not allow for much progress that first afternoon and the first night was spent in Canot Bayou with the stern anchored and the bow tied to a low Seaboard R.R. bridge. A lot of trains activity all night. The next morning disclosed Canot Bayou was also a barge parking area, so a number of barges had been tied to trees next to shore overnight.

Coffeeville Lock

The upriver trip to the first lock at Coffeeville was much slower than expected, with quite strong river currents. Morning fog, an engine coolant hose failure, and a side trip to explore the remains of old lock one. The lockmaster at Coffeeville said that Bobby's Fish Camp, just upriver, had groceries, ice and a restaurant. The hope for slack water above the lock was not to be, with currents as strong as below, making the stop at Bobby's a bit tricky. After finally getting lashed to a branch and a protruding tree root, it turned out the fish camp's restaurant only opened weekend, there would be no ice until morning, and the only food available was five-pound and larger bags of frozen local catfish. Another boat limped in with a bient propeller from debris in the river. The trip to Demopolis, Alabama was through continued strong currents, much debris in muddy waters, constant Mayflies, and a few snakes. With the strong current, anchoring could only be done in side streams. Even these had strong currents and debris. Frequent thunderstorms didn't help. There were few other pleasure boats on the river, but a moderate number of commercial tows, mostly coal going down river and empties back up. After anchoring in a side stream one night, we must have spent an hour in the morning freeing two anchor lines of logs and small trees before we could get underway. Since we were on the boat and they were in the water, the profusion of snakes was not a problem. Amazingly the debris did not foul the engine cooling water intake, but did plug up a valve in the marine toilet.

Souvenir pins, sold at the opening ceremonies at Columbus, Mississippi, June 1985.

A brand new marina greeted us at Demopolis, but their rates for everything almost choked us. It could have easily held a hundred fifty boats, but there were only eight at the docks and half of those were waiting for repairs to damage from river debris, with owners complaining about the slowness and cost. A radio conversation with the tug "Caddo," who was making a crew change in town, told us the commercial traffic was using the Black Warrior River from here on north, not the Tenn-Tom. Out of Demo-
pala and up the new Tenn-Tom the current was much less, the water a lot less muddy and most docks gone. Also a lot less commercial traffic, bordering on nonexistent. This meant heaving through the locks with no waits. Preliminary radio calls to the lockmasters came as though they were being answered by the president of the chamber of commerce. Lock passages were easy with no turbulence and clean, functioning, floating bollards. Sides streams were too shallow for overnight anchorages, so spots had to be made at wide spots in the waterway with bow and stern anchors to stay close to the shore. In addition to the required anchor light, a radar reflector was mounted high.

Columbus, Miss.

Columbus, Mississippi did not have a fancy new marina, but an adequate sized one, with friendly owners, unfortunately located next to a very dusty soy bean loading dock. Despite not seeing their barges on the waterway, a lot of soy bean loading was going on. The company's interesting name was "Tom Soya". A happy meeting with some executives of the Columbus and Greenville Railroad produced a railfan's delight, an all night freight train ride across the state, with a seaside views second all night trip back. The rail trip provided a look down on the Tenn-Tom from the new, high railroad bridge shared with the Illinois Central Gulf Railroad. The third night was railroad office party time on the "Yankee Doodle" with a trip short way down and back through the new Columbus Lock. It was nearly a week to take in the dedication ceremonies (starting June 1) at the Columbus Lock and all the local sights. The ceremonies sounded less and less interesting, as opposed to moving on. Moving on was the rule.

The water became much clearer. The huge Bay Springs Lock was every bit as impressive as it was supposed to be, especially when the gates close and you are the only boat in the huge cavern. The rise, even in this lock, was easy with minimal turbulence and a floating bollard for the whole forty feet of rises. The Divide section of the waterway is totally man made and mostly without scenery. Pickwick Lake at the North end made it worth while. Clear, warm water and dozens of deep protected anchorages. Arrival in the lake coincided with the waterway dedication ceremonies at Yellow Creek, a Mississippi state-run commercial port set up to use the Tenn-Tom. As seems always to be the case, the talks were mediocre, the souvenirs not much better. Most of the expected fleet of pleasure boats didn't make it. A huge balloon release from a barge hailed by the Corps Boat "Mississippi" was quite impressive.

Pickwick Lake is on the Tennessee River and here again the large traffic picked up. Down river on the Tennessee to Kentucky Lake with lots of cargo and swim spots, then through a fairly new out over to Barclay Lake and the Cumberland River, and down the little used Barclay Lock. Seems most of the traffic on the Cumberland ends up at Paducah, Kentucky, and it is an easier run via the Tennessee River, also using the new cut.

We Reach the Ohio

Arrival at the Ohio River created us once again with strong currents for an upriver run. The Ohio does provide interesting spots. Goodies like "Cave in Rock," Ewarsville, Louisville, local museums and tourist type sternwheelers.

An interesting side trip was to Frankfort, Kentucky on the Kentucky River. The Corps of Engineers still operates the very small antique locks that allow the almost non-existent commercial traffic to flow between the Ohio River and the Kentucky capital. Upriver from Frankfort, the State of Kentucky has just taken over weekend only operation of the formerly closed locks for well over a hundred miles. Since we wanted to attend a speleological convention in Frankfort, we did not venture past. The river had not been that scenic, although it is reported to be quite pretty at a canyon section some distance farther on. The Kentucky River flows north, and as with most other north flowing rivers, the locals claim it is the only one that does so. While anchored overnight on the way down river, the one commercial tow seen on the Kentucky went upriver at two A.M. with a load of gravel.

Back on the Ohio, there was a five hour wait due to repairs at Markland Lock, then on to Cincinnati and a motorbike trip short way down river to ride a small, privately owned, sidewheel ferry. Rumor has it this little gem is for sale. Another motorbike trip from Cincinnati took us to Metamora, Indiana and the

You can't get through Bay Springs Lock without taking a picture!

Whitewater Canal restoration. The chance for a ride on a horse drawn canal boat plus a steam railroad was not to be passed up. It was the Fourth of July and a festive day everywhere. Almost. The "Yankee Doodle" was tied up at a public marina near Riverfront Stadium, in downtown Cincinnati. We returned from Metamora only to be turned away from the waterfront by police. Seems hundreds of people gathered in anticipation of a fireworks display. Riots broke out when they discovered none were planned. Amazingly, a narrow entryway from a parking lot to the marina was not barricaded and not too near the riots. It allowed a safe return to an undamaged boat.

Trouble at Gallipolis Lock

Up river from Huntington, W. Va., Gallipolis Lock has a small chamber that shut down and commercial tows were stacked deep on each side as split loads went in and out of the small chamber. Stories of pleasure boats giving up and returning to Huntington after days of waiting abounded. With fantastic good fortune, the lockmaster said if I could do some dexterous maneuvering he would make me a new split of a down bound tow. This was most cooperative offer, and all worked out well. In general, the locks people on the Ohio River are not the "ambassadors from the chamber of commerce" like on the Tenn-Tom. They also had a lot more traffic to handle.

One evening was spent docked at a yacht club in Marietta, Ohio with a motorcycle trip for dinner to Parkersburg, W. Va. and the "Point-of-View" restaurant.

(Concluded on Page Six)
A CLOSER LOOK . . .

A side trip to Metamore, Indiana, was part of the fun. Here is the "Ben Franklin", and its horse team, on the towpath along the re-watered Whitewater Canal. (Austin photo.)

(Concluded from Page Five)

overlooking the Ohio River and Binnierhasset Island. Good food, good view. Another evening we were anchored in the Beaver River, just off the northernmost part of the Ohio River. Couldn't help but smile when a woman's voice called from a passing boat, "Welcome to the Beaver!"

The last three locks getting to Pittsburgh turned out to be the poorest on the trip. No floating bollards, but instead the old method of passing up long lines for lock personnel to secure to fixed cleats, hammer chamber walls and the need to switch fender boards from one side to the other at each new lock didn't help.

We Turn South Again at Aspinwall

The trip turned around at Aspinwall Marina, a few miles upriver from the Golden Triangle on the Allegheny River, but only after a good look at the local sights, including a fantastic trolley network to the suburbs and a set of beautifully preserved incline rail cars up the hill on the south side of the Monongahela.

Back down the Ohio, this time with a stop at Binnierhasset Island for a horse drawn tour, a pizza at a Pizza Hut private dock, and a run alongside the tug "Major", a really fast moving diesel-powered, stern-wheeler that throws up a lot of water around its fast revolving paddles. Fueled up at a tug stop in Clevelan, W. Va., for the amazing price of .74¢ per gallon of diesel fuel. Most mornings were foggy and involved a couple hours of radar running.

We had a lengthy delay at Melvin Lock while a chamber was being cleaned. The Coast Guard notice to mariners made no mention of it, but noted it would be closed the next day. Maryland Lock involved a long wait as the small chamber was closed, and again nothing on the broadcast notice to mariners. Calling the Coast Guard on the radio and informing them of the situation did not change the notice, even though they "would look into it". The notice to mariners also did not mention closed periods for the lock on the Tennessee River at Kentucky Lake, but someone radio conversation made it quite clear there was a problem. A call to Barclay Lock on the Cumberland, the alternative, confirmed it was operating without a problem, but on arrival it too, had a restricted schedule. By luck, timing worked out well.

Propeller Damage

In passing back through Pickwick Lake we managed to hit a submerged "something" and bent both prop and shaft. The damage seemed minimal and with the known strong currents for the down hill run to Mobile, judicious throttle use should allow the "Yankee Doodle" to make it to that port without much delay. As it turned out the bend was worse than thought and the strong currents of spring had faded away to almost nothing. It was a slow trip, with much vibration.

A most pleasant stop was made at Amony, Mississippi for the railfan weekend of the Magnolia State Railroad, a steam-powered tourist operation on the tracks of the Mississippi Railroad. It was a great treat to see a steam-pulled freight train right out of the 1950s on the banks of the Tenn-Tom. We had arrived there a few days early and helped with clean-up on the locomotive, which took us on a great locomotive cab ride. This shortline railroad has no way to turn the locomotives around, so they must run backward half of the time. Ruminant of the battleship "Alabama" guns pointed north, these locomotives run with their backs to the north. I often realized I was running in enemy territory with a boat named "Yankee Doodle".

A new operator at the marina in Demopolis had lowered prices and greatly improved attitude. Business was up. Business on the whole waterway was up greatly from the springtime, both pleasure and commercial, but could hardly be called bustling. Here and there new commercial docks were under construction. Some that were under construction in the spring were finished, but unused. On some work had stopped. The soy bean barge loaders were quite busy. A load of coal went by one night, downstream, on the new Tenn-Tom section. The harbor at Mobile was still quite busy.

General Impression

A couple of impressions. The waterway and the Ohio River are interesting to see. I hope business picks up on the Tenn-Tom. I hope the Coast Guard sharpens up on the Ohio. The possibility of underwater damage is very present on both systems. Carry adequate supplies on the Tenn-Tom. The people of Mississippi don't appreciate what a great state they have.

For further details of the thousands of miles of travel by the author over the inland waterways of USA, contact him by writing the personal letter to his New England anchorage — P.O. Box 880, South Norwalk, Connecticut 06856.

"MERRITT - CANADIAN BEFORE HIS TIME"

While best known for his building of the first Welland Canal (1829), William Hamilton Merritt was also a sailor, soldier, a successful businessman and a politician, a trader and a builder of bridges. In this 92-page paperback by Jack Williams, published in 1983, Merritt's many other achievements are revealed, along with the personal side of this remarkable man. One little-known fact about him was his promotional work, and supervision, of the building of the first international bridge across the Niagara River (1855) — a suspension structure, started by Charles Ellet and completed by John Roebling, which became one of the wonders of the World. Several striking photos of this bridge are included among the other illustrations in the book. Available from Stonehouse Publications, 17 Queen Street, St. Catharines, Ontario L2N 5G6, Canada, at $10.95 (Canadian) post-paid.

AMERICAN CANALS, NO. 56 - February 1986
MEMBERSHIP

It has been several years since we have analyzed our American Canal Society membership distribution. During the past year we have gained about 85 new members. Here is the situation as of January 30th, 1986:

Pennsylvania ........................................... 124
New York State ........................................... 109
New Jersey ........................................... 57
Ohio ................................................... 66
Maryland ................................................ 49
Virginia ........................................... 48
Canada ................................................... 34
Illinois ................................................... 28
Connecticut ........................................... 27
Massachusetts ........................................... 25
England ................................................... 18
California ........................................... 18
District of Columbia .................................... 18
Indiana .................................................. 18
Michigan ............................................... 17
Florida .................................................. 15
Vermont .................................................. 12
Maine ................................................... 8
West Virginia ........................................... 8
North Carolina ......................................... 6
Texas .................................................... 6
Washington State ....................................... 5
Wisconsin ................................................ 5
Delaware .................................................. 4
Kentucky .................................................. 4
Minnesota ................................................ 3
Tennessee ................................................ 3
Nebraska .................................................. 3
Missouri .................................................. 3
South Carolina .......................................... 3
Georgia ................................................... 2
Rhode Island ........................................... 2
Alaska .................................................... 2
South Dakota ............................................ 2
Iowa ...................................................... 2
Kansas .................................................... 2
Hawaii .................................................... 2
Alabama .................................................. 1
Mississippi .............................................. 1
Arizona ................................................... 1
New Mexico ............................................. 1
Ireland ................................................... 1
France .................................................... 1
Japan ..................................................... 1
Sweden ................................................... 1
Switzerland ............................................. 1
Oman, Arabic Gulf ...................................... 1
TOTAL .................................................. 762

ACS Secretary-Treasurer Charlie Dorr is currently in the process of reviewing a few ACS members who have not responded to the 1986 Dues Invoice sent out in early November. We need your dues payment to keep ahead of our printing and mailing costs. If you are one of those who is reminded by Charlie that your 1986 dues remain unpaid, please respond at once. Otherwise, we will reluctantly be forced to remove your name from our mailing list, and this is the last issue of AMERICAN CANALS that you will receive.

ON THE BLACK RIVER CANAL

ACS Vice President Bill McKelvey sent us the above photo made sometime around the year 1900. It shows the Delta Dam and Black River Canal Aqueduct, with a flight of three locks in the background, by-passing the dam. The Black River Canal ran 76 miles from Rome to Carthage in upper New York State, to make a connection between the Erie Canal and Lake Ontario. According to McKelvey, the dam and aqueduct are still in good condition today.

WAS THE COLOR DRAWING ON THE MIDDLESEX?

Along with ACS Bulletin 54, for August 1985, we distributed a large color print of a canal-lock scene by Arter Ben Dale, and asked if anyone could identify the locale of the picture. ACS Vice President Bill Gerber thinks he may have the answer. Here is his letter:

Regarding the origin of the picture that ACS recently distributed, I posed the question "could it be from the Middlesex?" to Fred Lawson, of Billerica, Massachusetts. Fred has extensively researched the canal, helped to found the Middlesex Canal Association and has served on its Board of Directors and as its historian.

Fred suggested that the scene may well be from the Middlesex and, if so, is probably of the area at the north end of Horn Pond, at the bottom of the Stoddard Locks. Also the boat may well be the "Governor Sullivan".

I went out and looked the area over, also checked out the MCA's Guide, Mary Stetson Clark's book "The Old Middlesex Canal" and Lewis Lawrence's unpublished manuscript "The Middlesex Canal". I agree with Fred but think that the artist attempted to produce a generalized canal scene, working from some of the specific features in the vicinity of Horn Pond.

The scene appears to be an adapted and compressed "mirror image" of the locks, the buildings and the background as they would have appeared from the bottom of the two three-lock staircases that once extended from the Horn Pond House up into the town of Woburn. Of those, the bottom "pair" were of granite blocks (like the locks in the picture) while the two pairs above were of wood construction. The locktender's "shack" is almost identical to the one preserved in Chelmsford, on the Common. The house to which it is attached appears to be a one and a half story version of the original two story Horn Pond House, though the house actually stood a little bit further back from the canal. The attached stables/shed is almost identical to that of the Horn Pond House. The steepie in the background is somewhat similar to that of the First Congregational Church in Woburn. Beginning about 1803, the Middlesex Canal Co. operated two packet boats on the canal, the "George Washington" (which Fred tells me had a peaked roof) and the "Governor Sullivan", which had a flat roof (like the boat in the picture). The "Washington" was removed from service about 1804. The "Sullivan" continued in service for many years thereafter, still being advertised in 1835.
THE MINDEN AQUEDUCT

Ornate arched housing the lift-gate on the Minden Lock, which lowers or raises the boats seventy feet between canal and river levels. The lock is shown full, in this view, lift gate closed.

By Bruce Russell

The Mittelland (Midland) Canal is an artificial channel in Germany extending from the Oder River in the east to the Rhine River in the west, with branches where needed to serve coal mines or other areas of industrial activity. At each end it was planned to connect with other canals being built which would penetrate as far east as the coal fields of Silesia and as far west as the Rhine River, Germany's busiest commercial waterway. Construction began about 1902.

The Mittelland Canal, as constructed, now runs from Magdeburg (in Communist East Germany) to the Rhine in the heart of one of West Germany's greatest industrial regions. It was opened to through traffic in 1921, a distance of about 380 miles. On the Magdeburg end the canal has direct connection with the navigable Elbe River as well as with various other man-made waterways which extend through Berlin into Poland and ultimately to the Soviet Union. On its western extremity at Rhine the Mittelland flows into the Ems, an important and navigable river which flows from the North Sea to Munster in central Germany. Also at Rhine 40 feet connections with the Dortmund-Ems Canal allow boats to reach the Rhine River.

At Minden, a moderate size city situated midway between Essen and Hanover, the Mittelland Canal crosses the navigable River Weser on Europe's longest canal aqueduct. Although little known to American Canal enthusiasts, the Aqueduct at Minden is visited regularly by canal and inland waterway boats from Great Britain and elsewhere in Europe. A series of short connecting canals and two major lock structures allow vessels to pass from the Mittelland to the Weser and vice versa even though the two waterways are at different levels. Each day during a 24 hour period hundreds of self propelled canal boats, carrying a wide range of cargoes, pass through Minden, making it one of the world's busiest places for inland waterway traffic.

View of a Polish boat in the main lock chamber at Minden. It is rising from the level of the River Weser to the level of the Mittelland Canal. About 50% of the boats passing through Minden are Polish vessels. The Minden complex also contains a smaller lock used only by pleasure craft. (Photo by Bruce Russell.)

The River Weser flows on a north-south axis from the port of Bremenhaven on the North Sea to Kassel, an industrial city situated in the central sector of West Germany, and is navigable for its entire length of about 250 miles.

At Minden waterborn traffic is so heavy on the Mittelland Canal that a boat passes over the Aqueduct on an average of once every 10 minutes. At night the entire area is illuminated by floodlights and the procession never ceases. Beneath the Aqueduct there is a vessel on the Weser at least every 20 minutes, and at several times during the course of the day one craft is literally on top of the other. Without fail the crews wave and blow their horns as both vessels pass at different levels. The Mittelland Canal Aqueduct at Minden, (length approximately 2200 feet) carries a pedestrian walkway alongside its water filled trough, so it is possible to have a elevated view of this fascinating scene. On any given day local townspeople as well as tourists come here to observe the activity. The novelty of seeing two boats passing over and under one another never seems to wear off.

Generally speaking, as soon as one vessel on either the river or the canal passes this point, another one can be seen approaching in the distance. As it nears the sound of the powerful marine diesels can be clearly heard, and sometimes a whiff of black smoke is visible.

The Minden Aqueduct was originally built of dressed and cut stone, neatly fitted together and bonded with mortar. The actual water carrying trough was iron.

This map shows the unusual water "interchange" at Minden, West Germany, where Mittelland Canal crosses the Weser River. The Minden Aqueduct is shown in the upper right sector.

AMERICAN CANALS, NO. 56 - February 1966
and sealed with bitumin. During the closing days of World War II it was heavily damaged, both by Allied bombs as well as deliberate sabotage by the Germans in a vain effort to halt the British and American military advance. In the postwar period rebuilding occurred and the metal trough was replaced with a reinforced concrete one resting on some of the original stone piers from the 1918 era aqueduct. The visual effect is not as appealing as when the entire structure was built of stone blocks, as evidenced by pictures and paintings in the Minden town museum. Nevertheless the four ornate stone gatehouses with their red tile roofs have been retained (two at each end of the water trough) and provide a link with the canal's earlier days. Two arches actually span the main channel of the River Weser, while the remainder take the canal across a swampy marsh. Thus the foundations for these arches had to be dug deep and may be resting on wooden pilings driven into the mud. The new concrete water trough appears to be completely and totally watertight, and observations by this author who walked beneath them revealed no evidence of any leakage or dripping.

Canal "Coolerleaf"

In addition to allowing one of Europe's most heavily trafficked canals to pass over one of its busiest navigable waterways, the Minden Aqueduct is also part of a unique complex of interconnected waterways which permit boats to leave the Mittelland and enter the Weser and vice versa. When viewed from the air what immediately comes to mind is a "coolerleaf" arrangement. Boats heading in a westerly direction can pass through the Aqueduct and make a right turn into a smaller connecting waterway. From here they proceed to a lock chamber which permits them to drop approximately 60 feet from the level of the canal to that of the river below. Once lockage is complete and the lower gates are opened, the boat enters a second connecting waterway or channel which merges into the River Weser from where it can proceed north toward Bremen and the North Sea.

During my day at Minden last summer it appeared that every third vessel crossing the Aqueduct in a westbound direction made this maneuver in order to proceed north rather than directly west via the Mittelland Canal. The reverse maneuver was also observed, with southbound vessels leaving the Weser and using the Minden lock to reach the level of the canal from whence they continued in either an easterly direction across the Aqueduct or towards the west and the Rhine River. Due to heavy traffic levels the Minden lock chamber, which appears to be an original 1921 structure is in continuous operation all day and all night. An observation platform atop the structure permits visitors to watch looking action, as well as to talk to the crews prior to descent into the 70 foot deep chamber. Furthermore this large lock has a twin towered control center plus administrative offices and a visitors area where refreshments, posters, and souvenirs are available. Everything at this point is in pristine condition, and surrounding the buildings are flower beds and neatly trimmed hedges and other evidence of Teutonic efficiency.

At all times I was conscious of the fact that this was a very busy place and one of the major centers of Europe's inland waterway and canal network.

Smaller Alternate

A similar arrangement, but with smaller dimensions occurs on the opposite side of the canal. It also enables boats to pass from the Mittelland to the Weser and in reverse direction, but see infrequent use. The increasing size of European inland waterway craft to the largest possible dimensions has rendered it redundant except for occasional use by pleasure boats or canal maintenance vessels. The lock chamber and its control house seemed to be unattended so that advance arrangements are needed to get someone from the main lock to come over and operate the mechanism.

Minden, its Aqueduct and Locks, is a "must see" for any American canal or inland waterway enthusiast and an entire day should be spent there to savor the activity. Minden, West Germany, is easily reached by modern inter-city passenger train from almost any point in Europe, and the Aqueduct and Lock complex is about 3 miles from the main passenger station. A short bus or taxi ride will get you there, and the observation decks and visitor's center are open from 9 a.m. until midnight. Refreshments are available, and bookings for excursion boats can also be made. The vicinity of the Aqueduct and Locks is landscaped to resemble a park, and many Germans spend a day here with picnic lunches. It is a rewarding experience.
The Canal Aqueduct where the Farmington Canal crossed the Farmington River in Farmington, Connecticut. (Copy of an old painting by R. J. Holden, supplied by the Canton Historical Society.)

The two principal criteria for inclusion of canal remains within the historic district were: both sides of the canal prism are substantially intact, visually showing the full profile as well as the course of the canal; and no later intrusions significantly detract from this visual indication. So, selected for enrollment were 25 discontinuous sections totalling about 23.5 miles, of the original 56 miles of the Farmington Canal in Connecticut. These sections are in the towns of New Haven, Hamden, Cheshire, Southington, Plainville, Farmington, Avon, Simsbury, East Granby, Granby, and Suffield.

One of our ACS Directors, Arthur W. Sweeton III of Canton Center, Connecticut, has been interested in the Farmington Canal, having collected information on its history, including a copy of the NPS nomination form. The nomination form, or application, for the enrollment on the National Register of Historic Places will contain a wealth of information (8½ × 11 inches) including: location; existing surveys; summary of original construction; summary of present and content and condition; summary of significance; and secondary works; Quadrangle map names (U.S.G.S. 1:24,000); U.T.M. reference; drawings; maps; photographs; bibliographies of sources. Copies of the nomination form are on file at the Connecticut State Preservation Office, at the Hartford Public Library, and Public Library of New Haven.

The above information was supplied by ACS Director Arthur W. Sweeton III. For a comprehensive history of the FARMINGTON CANAL (sometimes called the “New Haven and Northampton Canal”) see the article by Bernard Heinz in Issue Number 48 of AMERICAN CANALS for February 1984.

1987 ACS-CCS MEET

So successful was the combined meeting of the Canadian and American Canal Societies at Peterborough, Ontario last year that another get-together of the two Societies is planned for the Spring of 1987. It will be held in Syracuse, New York, the week-end of May 15-17, 1987 - the fifth anniversary for the Canadian Canal Society and the thirteenth anniversary of the American Canal Society.

Activities will be centered around the Canal Museum at Syracuse, with visits to points of interest on the Oswego and Erie Canals, a voyage on “Emma II” among the section of the present Erie Canal, and a tour along the restored old Erie section at Rome on the “Independence.” There will also be a visit to the Erie Canal Village, Fort Stanwix, and a ride “back of steam” on the Rome and Fort Rull Railroad. The weekend will open with a Wine and Cheese “Ice Breaker” Party on Friday evening. Dr. Bill Hulifish and his carnival group will provide entertainment after the Saturday evening banquet.

The Meeting Committee is already at work: Low Cahill, ACS Canadian Director; Debbie Stack, of the Canal Museum at Syracuse; Hayward Madden, ACS and CCS Director; and Bill Shanks, ACS Tour Chairman.

Canal Societies in the Northeast are advised to note the date of May 15-17, 1987 and plan their 1987 activities schedules accordingly, so they will not find themselves in conflict with this important weekend.

HAER — CLAPHAM LOCK

Sam Hopper, President of the Virginia Canals and Navigations Society has sent us the following report, as published in "The Tiller", VC & NS newsletter:

Clapham’s Double Lock on the Goose Creek and Little River Navigation was structurally recorded as part of the American Engineering Record (HAER) on 17 November 1984. The lock is located on the Xerox Management Training Center property a few miles south of Leesburg where Goose Creek empties into the Potomac. Previous attempts to record the lock had been thwarted by high water levels, heavy vegetation in the river bottom, training center schedules, and the schedules of the recording experts and non-experts. A working party of a dozen people was gathered on short notice when all factors became favorable and the weather cooperated. The group was equally divided between the Potomac Chapter, VC & NS and the Montgomery C. Meigs Original Charter (MCDOC) of the Society for Industrial Archeology.

Clapham’s Lock was completed about 1850. It is a double lock that lowered boats into a short channel connecting with Goose Creek where it enters the Potomac. It is a double lock, each chamber measuring about 11’3” wide by 52’ long, half the size of the locks on the C & O Canal across the river.

AMERICAN CANALS, NO. 56 - February 1986
HAER CHECKLIST: 1969-1985

The Historic American Engineering Record (HAER) is our favorite government agency, in charge of monitoring and recording America's industrial heritage - including historic canals. It might also be the world's smallest government agency; in fact, we should be thankful that HAER is there at all, and see that it isn't deleted in a budget cut!

HAER has just published their HAER CHECKLIST: 1969-1985, a 91-page computer listing of the 1,177 structures and sites which they have documented so far. The navigation canal sites are the Ouachita Lock & Dam, Arkansas; the Potomac (Alexandria Canal) Aqueduct, D.C.; the Augusta Canal and district, Georgia; the Illinois & Michigan, and Sanitary canals, Illinois (6 sites); the Lowell Canal system (20 sites) and the Lawrence Canal, Massachusetts; the Chesapeake & Ohio Canal (14 sites), and the Chesterfield & Delaware Canal, Maryland; the Morris Canal (14 sites), New Jersey; the Erie Canal (7 sites), the Black River Canal, and the Champlain Canal, New York; the Sault Ste. Marie Locks, Michigan; the Great Lakes Island Lock and Dam, the Union Canal, the Lehigh (7 sites) and the Delaware & Hudson's Delaware Aqueduct, Pennsylvania; the Blackstone Canal (7 sites), Rhode Island; and the Potomac Canal at Great Falls, the James River & Kanawha Canal (7 sites, including Hummock Bridge, Virginia).

We can add to that the recently completed dam of the Cone Island Lock and River Navigation in Virginia. The checklist is available from HAER, National Park Service, P.O. Box 37127, Washington, D.C. 20013.


With a limited budget and staff, HAER has relied heavily on volunteer work and private funding to produce these records. Those who feel that an archetypal canal site has been left out should ask HAER how to arrange and fund a recording party.

WEST BRANCH CANAL TOUR

Members of the American Canal Society are invited to participate in the Pennsylvania Canal Society's tour of the little-known West Branch Susquehanna Canal, April 25-27, 1986. Tour headquarters will be the Sheraton Motor Inn, Williamsport, Pa. The West Branch Canal ran 71 miles between Northumberland and Bald Eagle Dam, south of Lock Haven. At this point it made a junction with the Bald Eagle and Spring Creek Navigation, which ran on to Bellfonte, Pa. For further details, contact Robert Klein, R.D. 2, Box 15, East Berlin, Pa. 17316. Phone: (717) 269-0831.

French Canal Tour Planned

A power-boat, draped with lock fenders, on the Canal du Rhone a Sete in southern France. The Constance Tower is in the background. (Sent by Tom and Nat Hahn, during a recent trip along the French Canals.)

TRAFFIC ON SEINE BACK AS LOCKS ARE OPENED

From Diana Gaddes, Paris

ACS Director Roger Squires, London, England, sends the following clipping from "The Times" dated September 4, 1986:

Boat traffic on the Seine returned to normal here yesterday after the Government reopened locks around the capital, which it had closed over the weekend for reasons of security - but in fact to stop more barges joining a protest blockade in the city.

About 30 barges moored side-by-side across the Seine near the Pont de la Concorde at the weekend, blocking river traffic in protest over a slump in their trade in the past month and against a steady decline in general. Only 2,500 working barges are left in France, a third of that 16 years ago.

The immediate crisis was provoked by a sudden fall in demand for barges to transport cereals, usually their main activity at this time of year. The average waiting time for a barge cargo is 25 days. An "emergency plan" proposed by the Government on Friday failed to satisfy the bargemen, who fear that their future is at risk.

The plan includes provisions for bargemen to retire on full pension at 60 instead of 55; the Government buying boats less than 60 years old and in a good state of repair for between 100,000 francs ($8,400) and 500,000 francs depending on size; grants to scrap older or damaged boats; and a vocational retraining programme for younger bargemen.

ACS Vice President Bill Gerber is planning a conducted tour of the French Canals for August 9 - 24, 1986. To date about twenty people have expressed an interest in going with him. Two possibilities: the Nantes Canal in Brittany or the Canal du Midi in southern France. (Dr. Roger Squires, ACS Director in the U.K. recommended the Midi.)

The tour would begin in Paris, with boat-pick-ups arranged for mid-week (summer in France). Extra time would be available for sightseeing in Paris, a possible tour of the wine country, and even climbing up Mont Blanc, for the more athletic! Bill Gerber estimates that with APEX air fares to Paris, boat rental, meals, etc., you are looking at trip costs of about $1500 per person. The exchange rate of the Franc to the dollar is in our favor at this time.

For further details contact William E. Gerber, Jr., 16 Princess Avenue, Chelmsford, Massachusetts 01824. Early action is advised, as a commitment (and down payment) for airlines and boat reservations will be needed soon. Bill has concluded several very successful group trips to Europe.

STEAMBOATS ON THE ERIE

According to Bill Warren Mueller, Editor of STEAM BOAT NEWS, (Middleboro, West Virginia) a steamboat flotilla is planned for the Erie Canal, to arrive at New York Harbor July 4, 1986 in time for "Miss Liberty's" Birthday.
DREDGING ON THE D. AND R.

The following item on the dredging of the Delaware and Raritan Canal was written by Jean Brando of the Sunday Star-Ledger, December 8, 1966. It was sent us by Lawrence M. Laas. Information on future improvements was sent by Bill McKelvey, as published by Jean Brando in the same paper, January 12, 1967.

The Delaware and Raritan Canal is to be officially reopened next week, when water flow is restored to half of the 60-mile canal that was drained for a two-year dredging project.

The $20 million project removed sediment and debris from a 32-mile stretch of the historic canal will culminate in a ceremony the week of Dec. 16, according to Mocco Rizzi, executive director of the New Jersey Water Supply Authority.

Built in 1834 as a waterway for barges, the canal is the water source for 600,000 persons in the central part of the state. The canal also is the backbone of the D&R Canal State Park, an important recreational resource.

The D&R begins as a feeder canal just north of Stockton in Prallsville and flows parallel to the Delaware River, south to Lambertville and Trenton. The main canal flows northeast and ends at New Brunswick, the head of navigation on the Raritan River.

Rizzi said the last time the canal was dredged was in the 1950s. Since then, sediment had built up to the point where, in the summer months, reduced from 65 million gallons per day to about 8 million to 12 million gallons per day.

Water companies drawing water from the system include the Elizabethport Water Co., Middlesex Water Co. and municipal water companies in New Brunswick and North Brunswick.

James Amon, executive director of the D&R Canal Commission, said the overall impact of the project has been "extremely favorable." In addition to improving the canal’s water-carrying capacity, the project has also enhanced the historic and recreational features of the 60-mile canal park, he said.

The canal’s basic structure remains undisturbed; no new channels were dug and the canal’s historic width and depth are the same as when it was constructed.

A $12.8 million program to enhance the Delaware and Raritan Canal State Park over the next 10 years was presented at three public meetings during the week of January 13th.

James Amon, executive director of the D&R Canal Commission, describes the development plan as "a very reasoned and very modest proposal," and one that is long overdue.

The top priority projects include establishing a canal boat ride in Lambertville, "the linchpin" to the development of the area as a "major recreation and tourist attraction." It would cost $2.7 million.

The commission also placed highest priority on accomplishing the following projects, also slated for 1966 and 1967, at a cost of $3.7 million:

- Create a path on a seven-mile railroad right-of-way between Prallsville and Lambertville.
- Stabilize mill buildings at Prallsville and develop access.
- Restore railroad bridges and develop access at Lockatora Creek (Hunterdon) and Moore’s Creek (Mercer).
- Establish a major access area at Stacheller Falls, provide picnic and parking areas, restore historic houses.
- Landscape canal park in Titusville and Glen Acre area of Trenton.
- Create four-mile path along canal in Trenton from Lower Ferry Road to Old West Street.
- Restore four historic canal houses in Mercer and Somerset counties.
- Restore South Bound Brook lock, improve access.

Of course, if your favorite canal is on the list and has an index sheet write-up.

The American Canal Guide to New York is also off to a start under Wilson Greatbatch and Dave Wahl. If you want to help I can put you in touch with them. I’m finishing up the canal guide to Kentucky and West Virginia, and will get started on Virginia. We need to get started on other states.

A number of members have told us of their canal excursions, so we are building up a roster of experts. One of them, I hope, will agree to head our Navigable Canals Committee. For example, Wilson Greatbatch had an article in the October 1, 1984 CLARENCE BEE describing his family’s epic canoe voyage, paddling, rowing and sailing along the entire Erie Canal. Addison Austin writes that he has no phone because he’s always away travelling on his boat!

Charlie Dorr’s Operations and Maintenance Committee now has a few contracts, including Al Collyer from Ohio and Bob Kemp from New York. Now we are in a better position to field practical questions from those involved with operating canals and parks.

David Kimmersley in Pennsylvania writes that he is especially interested in the preservation of neglected canal towns and settlements which developed at locks and basins, and can help with historic and geographic research for National Register nominations.

Many thanks again to those who responded. We’ll do our best to take up your suggestions. Keep writing!

BILLY BILL TROUT

**CANAL BASIN AND LOCK RESTORATION**

On December 12, 1986 a meeting took place at the Susquehanna Museum of Havre de Grace, Maryland, to discuss the rewatering of the old Canal Basin of the Susquehanna and Tidewater Canal and the rebuilding of the outlet lock to the Susquehanna River from this basin. The meeting was called by C. Jay O’Dell, Tide Water Administrator for the Maryland Department of Natural Resources, who is interested in providing a "growing area" for very young Shad in the old S. & T. Basin. The Shad would be trucked in from fish hatcheries and released to the River after reaching a length of about two inches.

Present at the meeting were: David Craig, Director of Public Works, Havre de Grace; John Underwood, Head of the Maryland Youth Conservation Corps; Linda Knight, one of the Youth Conservation Corps leaders; Charles Montgomery, P.E. and Ellsworth Shank of the local Archeological Society; David R. Hall, P.E., of Frederick Ward Associates, engineers, Bel Air, Maryland; and William Shank, P.E., canal historical advisor.

Since the meeting, it has been learned that Frederick Ward Associates have been asked to draw up detailed plans for the restoration of both lock and basin, with the State providing funds for the plans. When the project reaches the construction stage, the Maryland Youth Conservation Corps may assist with some of the work involved.

With this issue of AMERICAN CANALS we are including a small brochure showing the canal area to be upgraded at Havre de Grace. Susquehanna Museum is located in the restored, two-story lock house, open to the public Sunday afternoons at no charge. Museum supporters recently built an exact replica of an old canal swing-bridge there.