

MOVING YOUR LIBRARY

Bruce L. Keck
U. S. Geological Survey Library, MS950
12201 Sunrise Valley Dr.
Reston, VA 22092

ABSTRACT: Because of space limitations, the U.S. Geological Survey (USGS) Reston Library had been housing materials (books, journals and maps) in an offsite warehouse. Space eventually became available for the library in the basement of the USGS National Center, the building that now houses the Reston Library. This paper describes how we were able to move map collections and books shelf to shelf, yet leave room for growth when we needed it in the approximately 200,000 volume annex collection.

The U.S. Geological Survey Library.

The US Geological Survey (USGS) Library's headquarters Library is in the USGS National Center in Reston, Va. Branch libraries are in Denver, Colo.; Menlo Park, Calif.; and Flagstaff, Ariz. The USGS Library has one of the most extensive earth science collections and is a very heavy net lender through Interlibrary Loan.

The American Geological Institute uses the USGS Library as their primary source for materials indexed in the GeoRef data base.

The Library Annex.

Since the early 1980's, the annex collection had been housed in a section of a warehouse in Herndon, Va. several miles from the National Center. This situation dated back to an acute space problem in the National Center, and the solution at that time was to move a portion of the library to the warehouse.

The warehouse environment was extremely bad for the collection. Temperature and humidity varied widely, and the rock-grinding facility in the same building created a lot of dust that settled on the books and maps. Under these adverse conditions, there was concern about the preservation of the collection. Older materials continue to be used. Geological researchers are somewhat unique because they depend heavily on older material.

The warehouse facility was unstaffed, which limited access to the collection. USGS housed its large collection of "P" class material in the warehouse. This heavily used, actively growing collection includes reports from the Department of the Interior, Environmental Protection Agency, National Institute for Standards and Technology, and State Water Agencies. A staff person visited the warehouse once a week to retrieve requested items. Users usually had to wait for what they wanted. In addition to the large book collection, over half of the map collection was in the warehouse.

Almost no security existed and items disappeared mysteriously. The collection contains many irreplaceable items. Through exchange programs, the USGS Library receives a lot of foreign publications, sometimes the only copy in the United States.

Without staff to maintain the collection, returned materials and new materials accumulated, waiting to be shelved or filed. By the time preparation for the move began, the area was piled high with books and maps and that problem had to be solved first.

The New Space

When the Minerals Management Service moved out of the National Center to their own building, the library was given some of the resulting space. Within budget limitations, the space was refurbished according to existing needs. To make the space contiguous, a portion of the hall was blocked off with permission from the Safety Office. It is somewhat ironic that this was a lot of the same space that the library had vacated in the early 1980's. However, with proper ceilings, lighting, and attractive carpeting, it looked much better the second time around.

Compact Shelving

Considering the amount of space available and the volume of materials to occupy the space, it was necessary to utilize compact shelving (also known as movable aisle shelving) in the book and journal area. The decision was made at the start that it would be a "staff only" area, but with daily visits from a "retriever," turnaround time would still be greatly improved over weekly visits to the warehouse. Therefore the option for an arrangement that maximized the number of shelving sections at the expense of the aisles was selected. The size of the installation necessitated long, electrically-driven carriages. Each double-faced range is 10 sections long. Seventeen ranges share an aisle.

The government contracting process was used to select a vendor for compact shelving. Several companies bid on the contract. The vendor that best met the requirements was selected even though they were not low bid.

When the shelving installers showed up to place the rails and carriages, they discovered the installation would not fit because there was a wall in the way. The building

contractor had received a different version of the plans than the compact shelving contractor. Fortunately the wall was moved without too much delay.

The Move Contract

Once again the contracting process was used to select a moving company. Requirements were communicated to the Contracts Branch. The books were to be moved on carts and loaded onto covered trucks. Hours and days the movers could work were specified. Several iterations of requirements were necessary to eliminate misleading statements from the contract. The contract was awarded on the basis of low bid. However, the moving contractor was willing to work with the library staff in every possible way.

The move was divided neatly into four phases: (1) books and pamphlet files from the warehouse, (2) maps and map cases, (3) shelf installation, and (4) upstairs collection shift. Each was assigned a start time.

The Book Move

Before moving any materials, the length of the collection was measured. It was determined how many shelves were available in the new location. Library personnel then identified which titles were fast growers and decided how many empty shelves to leave for each. It was also determined that we wanted to leave periodic empty shelves. The number of desired empty shelves was subtracted from the total number of shelves giving us the number of available shelves. The number of available shelves was divided into the length of the collection (in inches) indicating the number of inches to fill each shelf. The staff evaluated the number of empty shelves needed and recalculated several times so the inches per shelf came out to 27 or less. This spacing allowed for future growth without necessitating major shifts of the collection for a period of 5 years. Two and a half years have elapsed and the estimates are holding.

According to the original planning, carts would be loaded at the beginning of the collection and unloaded at the beginning of the new shelves (a linear move). In discussions with the moving company, however, it was found they had bid on a shelf-to-shelf move. Rather than renegotiate the contract the mover showed the library staff how to convert.

Each section was numbered consecutively at the destination and labels were placed at the top of each section. A yardstick was cut to the length of material to go on a shelf. The collection was measured starting at the beginning, and a divider was placed at each shelf length (manila folders were cut up and used as dividers). The dividers showed where a "new" shelf was to begin and end. Most of the time a "new" shelf did not coincide with an existing shelf.

After marking, each "new" shelf was labeled according to its destination. The shelves

destined for Section 6 were labeled 6A, 6B and so forth from the top. For this, stick-on labels supplied by the mover were used. So that every shelf was accounted for, labels were made for the empties, for example, 6C EMPTY, and they were placed where they would fall in the sequence. It was necessary to proof read often, because labeling is quite error-prone.

At this point the materials were ready to be moved. Because each book's destination was known, it was apparent everything would fit.

The actual move was delayed several times. Dates were promised for the space to be ready, but it was not. This required modifications to the contract. The books had been professionally cleaned (by another contractor) and they were getting dusty again.

Once the move began, several crews of movers at the origin were able to load books onto carts simultaneously because the shelves had been marked and labeled with their destination. The carts were hauled on moving vans to the National Center. There several crews unloaded the carts and placed the books on the shelves along with their labels. Library staff persons served as monitors to ensure proper placement of books.

In the warehouse, much of the collection was on a mezzanine level. To get the loaded book carts down to the main floor, the movers used a cage on a fork lift.

Meanwhile, movers took down shelves as soon as soon as the books were removed. Since the shelves (four-corner "prison" type) were to be reused, they went on the vans to the destination also. The compact shelving contractors mounted them on the carriages to receive the books. (This might be called "leap frogging.") The shelving installers had to keep ahead of the movers to keep the move progressing.

This worked pretty well until the weekend came and the shelving installers didn't show up. Fortunately the salesman was contacted at home and he sent a partial crew to keep the operation going.

On the last day, a mishap occurred in the warehouse. As movers were removing books from the shelves, others were unbolting tie struts. In the process, several sections fell over. A mover narrowly escaped injury. Fifty six shelves of books went on the floor and had to be sorted.

Pamphlet Files

As part of the book move phase, six large pamphlet files had to be moved. They looked like something from World War I. In fact they showed up in a library picture from 1917.

They were moved into a separate room next to the compact shelving. It was a challenge for the mover to maneuver these heavy items through a single-width door and place them in a line. They were about the size of 3 or 4 standard file cabinets bolted together.

The placement of the files was based on the building plans, but then a door was found that nobody knew about. A quick layout revision was in order.

Carpeting was to be installed around the files after they were in place. This would save on carpeting. Afterwards, it was discovered that the edges were too irregular and carpeting could not be installed at all.

Map Move

The objective was to blend two map collections into one in a single area. Previously, the U.S. and Canadian maps were in the Main Library on the fourth floor of the National Center, and all others were in the Herndon warehouse. Much planning was required to group together similar sizes and styles of map cases while keeping the logical sequence without having to do too much shifting after the move. Approximately a dozen different varieties of map cases were involved. Layouts were drawn to account for each individual case.

As with the books, this phase was delayed because the space was not ready on schedule. The space was occupied by other USGS personnel who couldn't move out because their new space was not ready. The delays were cumulative.

Cases were moved full and kept flat. This method was least harmful to the maps. Because they were so heavy and stacked four high, it took four and sometimes six hefty movers to handle them. They placed the cases on wheeled pallets specifically constructed for this move, which were plywood sheets attached to four-wheeled dollies. After the first day it was concluded that the cases were too heavy for this arrangement, so they went back and rebuilt the pallets by using two dollies each. In lifting and transporting map cases, experience had shown that it was important that the weight of the cases be borne on all the edges to keep the centers from buckling or bending the front bars.

Once again a change to the contract had to be renegotiated. The mover had bid on the move on the assumption that the cases would be moved in order rather than with rearrangement and staging. It was also later learned that some of the bases had been bolted together. This required an additional modification to the contract to get them unbolted.

Because of a requirement that the library remain open to users during established hours of operation, map cases were moved from the main library on the weekend. Surprisingly, they were able to complete this operation in a single weekend.

The cases were moved from the Herndon warehouse during the week because the USGS warehouse crew was needed and they did not normally work weekends. Because the USGS National Center was in full operation during the week, the crew sometimes had to line up for the freight elevators with building maintenance and deliveries going on at the same time.

Our previous experience with the National Center building plan should have prepared us for the next surprise. A door was shown in the wrong place. Some quick decisions had to be made to modify the arrangement, eliminating a stack, as the cases came rolling in.

It was important to plan carefully when the van was loaded for the last run. Since the staging area at the destination was filled, the last cases had to go directly from the truck to their final location. This meant that the truck had to be loaded LIFO (last in - first out).

This time the carpet was installed after the move. What was saved on the amount of carpeting needed more than made up for the labor to cut the carpet squares to fit around the map cases. Cove base was then installed around the cases to cover irregularities and the final result was aesthetically pleasing.

With the successful completion of the move, plans were implemented to establish the Cartographic Information Center as a new section of the Library. Some of the benefits are that the staff can concentrate on cartographic matters and give better service. The map collection has more visibility and accessibility than before. Response to information requests can be faster, especially in the case of natural disasters where timeliness is essential.

Shelf Installation

The collection in the main library had become very crowded at this point. There were several overflow areas where items were shelved that did not fit in their proper location. To alleviate this problem, fourteen ranges of shelves were installed in the space where the map cases had been removed. We had planned on thirteen, but through a measuring error we got fourteen. If you are going to make an error be sure it is in your favor.

The shelving was inherited from the Department of the Interior Library. They were moving out of their library's annex and did not need the shelving. Although the USGS did not have to buy the shelving from them, it was not free. The USGS paid for dismantling and shipping, and the cost was significant.

The shelf installation phase was delayed because of a wait for the spaces that had been under the map cases to be carpeted. Carpet tiles had been stored in the warehouse, but, by the time they were needed, they had disappeared.

Time was passing. Spring was coming and the moving company had bid using Winter prices (Summer prices are higher). There was concern that renegotiation would be necessary. Once the space was carpeted, shelf installation began immediately.

Main Collection Shift

Once the new stacks were installed, the expansion of the collection into them could begin. The planning was similar to the book move from the warehouse. Measurements were made and the collection marked. By this time it was realized that the measurements needed greater accuracy. In the move from the warehouse, the size of the collection had been determined by counting filled shelves and estimating length. This time the measurements were made to the nearest inch and the length of the collection was accurately determined. Also, the overall procedure was well worked out by this time, so many library staff persons could be utilized to do the measuring, marking, and labeling with a minimum of training.

To finish on time, the movers began moving the books as soon as the shelves were up. The library was not closed in spite of the confusion of many crews loading, wheeling, and unloading book carts. Occasionally users had to wait to get into an area of the stacks where they needed materials.

Numbers indicating the size of the move:

Compact Shelving Area 16,134 ft or 3.06 mi of shelves

Material moved from Herndon 9,678 ft or 1.83 mi

Main Library 42,768 ft or 8.10 mi of shelves

Materials shifted 28,045 ft or 5.31 mi

Map cases moved 650

Maps moved 350,000

Although varying degrees of participation and support were received from Library Section Chiefs, the move afforded an opportunity for staff cooperation. Library staff enjoyed the joint effort to attain a common goal, as well as opportunities to work with personnel they did not regularly work with. The Library received a group award from the Secretary of the Interior for the project.

With the various delays between phases, the actual move began in December and was finally completed in May.

Special thanks go to Carol Messick, Bob Bier, and Edward Liszewski, my partners throughout the moving operation.

If you are contemplating a move, read the literature. The bibliography included with this paper can get you started. Talk to others who have had similar experiences. You might be able avoid some of the pitfalls.

Most importantly, PLAN. Don't be afraid to over plan. At USGS, most of the surprises were anticipated. Nobody looks back and says "We should have done less planning." Good luck with your next move.

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