

The Sign Advisory Work Group Meeting  
2 December 1999

Attendees:

Tim Grundhoffer, St. Paul District  
Joe Holmberg, Sacramento District  
Art Hurme, Dredging/Navigation Branch, HQUSACE  
Mike Kidby, Dredging/Navigation Branch, HQUSACE  
Karlissa Krombein, Office of Counsel, HQUSACE  
Bill McCauley, Southwestern Division  
Greg Mollenkopf, Baltimore District/NAD  
Debra Stokes, New Orleans District  
Henrik Strandskov, St. Paul District  
George Tabb, Natural Resources Mgmt. Br. HQUSACE  
Dennis Wallace, Kansas City District

Strandskov made opening remarks concerning the importance of good signage.

MCX Issues:

Strandskov discussed some issues related to the MCX. He explained how the sign standards and waterways engineering functions would be combined in the new MCX. He also discussed recent changes in the location of the MCX webpage on St. Paul District's website. The IM staff in charge would prefer to have it on the district's Intranet site, because they feel it is not of interest to the general public. There was general agreement that the page should be listed – with a link – on the HQUSACE website. There is also a good possibility that an information exchange or “chat room” capability can be added to the website.

(Note: Following the meeting, it was ascertained that, for the foreseeable future, the website will remain available to all on the Internet. The information exchange will likely be a sort of pseudo-chat room where email messages to the MCX, along with their responses, would be reprinted on the website.)

Tabb reported on the MCX approval process. He began by passing out a sheet that summarized the justification for creating an MCX that would combine the functions of the organizations in St. Paul District that have heretofore handled waterways signs engineering and the sign standards program. This information was presented at a meeting at the beginning of October, where all MCXs had to defend their existence. Tabb said that the proposed combined sign MCX was the most easily approved of all. Some other MCXs were cut and some, like ours, were combined. Of the 22 to start, the process resulted in 11 being approved. Tabb noted that, although approval of the combined MCX is more or less assured, we have not yet received a final approval document. General Van Winkle must still sign it, and then it will be sent to General Ballard for final approval.

He said that a selling point for the MCX was that Karlissa Krombein really raised their eyebrows about the importance of compliant signage in avoiding liability problems. This becomes

especially significant if lawsuit settlements come out of local budget. These are now important considerations for project personnel planning signage.

Tabb reported that the primary reasons for authorizing the sign MCX was its responsibility to coordinate requests for approval of non-standard Danger, Warning, and Caution signs and its expertise in the engineering of waterways signs and their installation.

Tabb also distributed the rewritten charter for the combined MCX. He said that the next step is to draft a revised regulation to establish the MCX. The contact for this is Bob Bank. Charles Hess had told Tabb to change the regulation on MCXs to reflect the combined sign MCX. Strandkov will draft the revision.

(NOTE: The issue of revising the regulation was subsequently clarified in an email from Bob Bank. Following is a portion of that message:

*“You are correct that the "registry" for MCX is the MCX homepage (<http://www.usace.army.mil/inet/functions/cw/cecwe/coexpert/newcoe/ctrsexp.htm>). The CX ER (1110-1-8158) is purely procedural, and does not list MCX. The regulation does not need to be revised. In the past, there was an annual Engineering Circular that listed Centers of Expertise, but it no longer exists. A memo is awaiting the signature of the Deputy Commanding General for Civil Works (MG Van Winkle) to request that the Deputy Commander (MG Fuhrman) approve the list of MCX (including the Signs Center). The Deputy Commanding General for Military Programs (MG Hunter) has already co-signed that memo. The memo has been on MG Van Winkle's desk for about a month now, but I'm told its approval is near; however, I cannot add the Signs Center until MG Fuhrman approves the new list of MCX.”)*

### Compliance:

The next topic was a discussion of the problem of lack of compliance with the sign standards program, especially in terms of waterways signs.

Hurme noted that staff members don't understand the importance of compliance.

It was stressed that we must make it clear that the courts will not second-guess us if we have a program in place and we follow it.

It was noted that there will be an opportunity for getting the message out to the districts about the importance of sign compliance. The big Operations conference coming up in 2001. There will be both plenary and breakout sessions, including a sign compliance session.

Mollenkopf asked whom we should target to stress the importance of compliance. Tabb said that in each district, we should target the chiefs of Operations, Natural Resources, the head of waterways operations, and the commander.

Hurme pointed out that not having compliant signage is like driving without auto insurance.

Stokes noted that the Carsonite catalog still shows non-compliant signs. She urged the MCX to send an official letter to Carsonite with camera-ready artwork and the appropriate pages of the sign standards manual. The letter would request Carsonite to remove the non-compliant signs from their catalog and to produce only the style approved in the manual.

Hurme noted that the same problem of finding Henrik's site exists with the website containing the navigation charts. Tabb said that *Interpretive Net* and *Ranger Net* are run by Kevin Ewbank at Rock Island District, and he might have some insight on these issues. Hurme asked if Natural Resources Branch in headquarters has an Internet site. Tabb replied that there is a site about recreation, but it needs improvement.

The requirement that the MCX report on sign compliance was discussed. Mollenkopf stated that compliance comes from the enthusiasm of the project manager, not from the district sign program manager. There was general agreement that Corps personnel outside of the natural resource side, do not think broadly enough about the sign program. It's too often considered just a "*recreation thing.*"

#### Color:

Strandskov reported that he will be attending a meeting of the American Society for Testing and Materials (ASTM) in New Orleans on 7 December 1999. The subcommittee of the ASTM that covers traffic safety materials will be discussing retro-reflectivity standards and standards for the colors of retro-reflective sheeting. Of particular concern is a proposal to establish standards for a brown color for recreational signs.

The MCX and representatives of the National Park Service (NPS) have been discussing the possibility of agreeing on a brown that would be different from both Corps Brown and the reddish recreational brown now used by the NPS and other agencies. Strandskov has been in touch with Don Meeker and Phil Musselwhite on this issue. Musselwhite is Chief of the Division of Wayside Exhibits at the National Park Service's Interpretive Design Center located in Harper's Ferry, West Virginia. One purpose of Strandskov's attendance at the ASTM meeting is to urge that establishment of a standard for brown be delayed while further deliberations by the Corps and NPS take place.

(NOTE: Prior to the ASTM meeting, NPS sent a letter to the subcommittee asking for the delay. Strandskov confirmed this request at the 8 December meeting. A more complete account of the meeting was sent to Advisory Work Group members via email on 16 December 99.)

#### Waiver Requests:

The discussion then turned to the three safety sign waiver requests that had already been reviewed by the Work Group.

First was the request from New England District for a sign warning of temporary road-flooding conditions. After some discussion of various related issues, it was agreed to let stand the decision to deny the request and recommend use of the standard diamond shaped highway warning sign

with the legend “*Road Subject to Flooding.*” It was noted, however, that some districts might prefer other solutions, such as temporary signs.

This led to a discussion of the potential problems in reconciling the specific needs of a project or district with the goal of nationwide uniformity envisioned by the sign standards program. Tabb pointed out that one way districts comply with the program but allow for project or district specific variations is to document those variations in a good sign plan. In this context, Holmberg observed that signing must be in conjunction with other informational methods used at a site. It was suggested that all districts be reminded that a site plan is mandatory. Also, successful procedures in individual districts could be highlighted on a national level.

As an example, Mollenkopf said that Baltimore District has an operations plan that specifies the placement of barricades when roads are flooded. There was general discussion encouraging the cross-referencing of sign plans to operational management plans (OMPs). The MCX was directed to send a national sign policy letter addressing unusual project conditions such as flooding and saying that a sign plan is needed. A project may simplify the process and not need to create a separate document by cross-referencing other project plans, such as an OMP.

Next discussed was the New England District request for a temporary sign warning that herbicides had been sprayed in an area. Some noted that in their districts, a contractor, who was required to supply his own signs, did the spraying. Mollenkopf said that a contractor was doing the spraying in question. After some more discussion, it was agreed to wait until Karlissa Krombein arrived at the meeting.

After Krombein arrived, she said that there was no problem with substituting the word “*herbicide*” for the word “*pesticide*” on our approved sign. Stokes suggested using a custom recreation sign that would allow the choice of wording to meet the project’s needs without requiring formal approval through the waiver process.

Another suggestion was to consider other ways to let the public know when the spraying had taken place. Again it was pointed out that the contractor handles the signage in most districts. The final decision was to deny the request, but to provide the requester with advice on alternatives.

The final request discussed was the modification of the Danger sign at the Falls of the Ohio fossil beds (McAlpine L&D, Louisville District). The group agreed to the sign, with the more concise wording that Holmberg had suggested. The MCX was directed to notify the requester that the UNICOR sign order would have to be done manually. Also, the approval of the earlier non-standard sign at the site should be rescinded.

McCauley presented a preliminary draft of a waiver request for a sign warning of high winds on a lake. After initial remarks about some of the potential problems with such a sign, it was decided to postpone the discussion until Karlissa Krombein could participate.

After Krombein joined the meeting some questions were raised included whether it should be a Caution or a Warning sign and whether we should even be signing such a hazard. For example, Krombein noted that the purported hazard is a natural condition; thus, if it’s not unusual, perhaps

we shouldn't put up a sign at all. She said that the only place she can remember where such a sign might have been needed is Bird Island Pier in Lake Erie; people visiting that site have been swept into the river. In other words, unless the hazard is so unusual (e.g., unusually huge waves) that people would not expect it, the sign is probably not needed.

McCauley asked for a summary of the group's objections. Krombein replied that we should not be warning against the obvious. McCauley suggested that the alternative, then, might be public education. He said that he would discuss it further with district staff before submitting a formal waiver request.

#### Update of Sign Standards EP:

Plans to update the Sign Standards Manual were next discussed. This project is necessary not only because the manual is overdue for a review, but also as a preliminary step in making it available electronically on the Internet.

Strandskov reported that the MCX had solicited proposed changes to the manual from all the district sign program managers. Several responses have been received. Holmberg said that he has received some from his projects that he will send to the MCX.

Holmberg proposed that the next step would be to convene a task force – a sub-group of the Sign Advisory Work Group – to go through the manual line by line and record the necessary changes, additions, and deletions.

It was determined that the members of the manual upgrade subgroup would be Strandskov, Johnson (assuming his acceptance of the position), Stokes and Holmberg. It was suggested that the group meet in St. Paul in January. The group subsequently decided to hold meeting in New Orleans. Kidby said he would contact a person knowledgeable about waterways to participate in the process. He also said he would send to the MCX the section on chamber markings from his report.

Kidby noted that the American Waterways group has complained that different signs are used at the locks and dams. In response, he asked the various waterways districts what signage they used in their locks; in particular, how they displayed chamber markers. He found that chamber marker signage varies from district to district. He suggested that a good contact person for waterways signs is Chris Morgan at Lock and Dam 24.

Grundhoffer said that he would limit his comments to Section 14, in which there are some corrections that should be made on technical matters. He said he will give his comments to Strandskov.

It was suggested that UNICOR's input would be desirable when updating the sign standards manual.

Holmberg asked if it was necessary to circulate a draft of the revised manual around Corps before it is published. Tabb said that such a practice was common in Natural Resources branch, but adds

a lot of time to the process. It was agreed that, because we have already asked for field input, it was unnecessary to circulate the draft version.

Strandskov reported that he had not made much progress on contracting for the *Sign Manager* software upgrade. He is still working on the paperwork needed by Information Management at HQUSACE to justify the new software. In an effort to keep the process focused, Strandskov suggested that he report his progress to Stokes on a regular basis.

The need for some additional manuals for the existing software was discussed. Strandskov offered to print copies of the updated manuals. The possibility of putting the manual on the Internet in .pdf format was also discussed. Stokes will check on what's needed to do this.

#### Waterway Signs:

The next topic was waterways signs, in particular the delay in implementation of the sign standards program with regard to safety-critical waterways signs. The high cost of some signs was again cited as a factor. Kidby noted that the onrushing deadline for safety-critical signs - 1 January 2001. The deadline for projects needing a delay because of special circumstances is still 1 January 2003, and the deadline for all other waterways signs is still 1 January 2006.

A recent reminder of the importance of compliant waterways signs was Karlissa Krombein's presentation during the MCX justification procedure. In that session she pointed out that districts not in compliance could have excessive liability.

Navigation Branch reported that the district budget requests that have come in show some districts are making more of an effort than others to achieve compliance. Navigation Branch will put out a memo reminding districts of the deadlines.

McCauley noted that there may be procrastination because waterways personnel think changes may be coming that will giving them more leeway with signage. Kidby said that the forthcoming memo will dispel this notion.

Also mentioned was the 1997 memo from (then) Ohio River Division suggesting various alternatives to large waterways signs. According to Kidby, some of the proposals went beyond the sign standards and should not be permitted. Additional, the memo was not specific enough. Navigation Branch plans to send a response soon to Great Lakes and Ohio River Division (LRD).

Hurme also said that Navigation Branch will soon send out a memo to all districts reminding them of the importance of compliance with the waterways sign standards and meeting the deadlines. The memo will be based on the draft memo prepared by the MCX last June.

In summary, Navigation Branch will send one memo to LRD and also one to all waterways districts explaining compliance requirements and stressing the reasons for at least budgeting sign money so that it can be obtained if it becomes available. McCauley asked whether the memo would go to the waterways people as well as the sign managers? Kidby said it would.

Krombein said that a memo about the need for compliance should not emphasize that judgements will no longer come from Justice's Judgement Fund. The prospect of increased liability should be enough to convince the districts that compliance is desirable. She also said that the memo should say that the tiered safety zone plan shown in manual for the area upstream of gated structures is not necessary. She noted that the priority of safety signage at dams should be: Ungated structures, most hazardous; tailwater of gated structures, next most hazardous; and upstream of gated structures, least hazardous. Even if do not sign as thoroughly as the manual depicts, we can still have something delimiting the restricted area. Buoys should be sufficient for this purpose.

Grundhoffer discussed alternatives to the large signs that the sign manual would seem to require at some locations. He noted that he had attended the Louisville meeting that resulted in the LRD memo discussed above. He stressed that the division does indeed have a large river system with difficult sites to sign – sites that would require huge signs in some cases.

Grundhoffer reminded the group that he had presented plans at the 1997 meeting of the Work Group that depicted an alternate method of signage using daymarks based on the regulatory markers that are part of the Coast Guard's aids to navigation system. He said that he doesn't know if the suggested system of daymarks made it through the system. He stressed that the sign manual says that we must use the Coast Guard system and that our signs are intended to complement that system. Grundhoffer presented the previously-proposed alternative system, handing out draft manual pages that showed the placement of the daymarks.

Tabb noted that some of the resistance to implementation of the waterways sign standards would lessen if personnel fully understood that the manual is guidance, and that a project is in compliance if it follows the spirit of the manual.

One element of the Coast Guard system is the use of buoys to mark restricted areas. Stokes asked whether some of the locks and dams were not using buoys. The answer is yes. Grundhoffer asked the reason for this. The reply was that Operations says the Coast Guard is supposed to maintain the buoys, but they won't do it because they are placed on Corps property. **However, the requirement for appropriate hazard marking is still the Corps responsibility.**

Wallace noted that the Coast Guard auxiliary puts up the buoys at his lake. He also pointed out that buoy installations work better with vertical anchor chains than oblique ones.

Grundhoffer emphasized that if we can come up with alternatives that are cheaper, there would be more compliance. He noted that Pittsburgh has done a good job, but bigger sites downriver would cost more.

Next some waterways sign engineering issues were discussed. Hurme asked where we are with the H-pile supports. Grundhoffer replied that we have run out of funding to complete the publication of this, but the engineering calculations are at his desk.

Grundhoffer noted that we convinced Pittsburgh District to use galvanized steel instead of aluminum for its sign installation, and this has proved successful. He said that a couple of districts had called to say that existing signs constructed with old technology had blown down and they wanted to replace them with new signs constructed to the specifications developed by the

Waterways Signs MCX. Grundhoffer said that the success of these specifications had recently been demonstrated when such signs withstood tornado winds in North Dakota.

Krombein commented on the proposal described above to use daymarks with Coast Guard aids to navigation symbols in lieu of some signs. She said that this might not be sufficient in some cases. She especially encouraged the use of verbal signs for an ungated structure because of optical illusion such structures present to boaters. She asked whether we have a list of all the projects that would use the daymark system.

Grundhoffer said that he only knows of half a dozen.

Krombein said that the only way she can see using only daymarks upstream of ungated structures is if that system is combined with an aggressive public information campaign by the district in question. She stressed that the big problem with nonverbal signs is with recreational boaters – commercial users know what the Coast Guard symbols mean. We must also consider the proliferation of jet skis, which are vessels too and whose operators often don't know the rules.

Krombein summarized by saying that if a district wants to use nonverbal waterways safety signs, the decision must be thoroughly justified in writing. The district must spell out why verbal signs are not feasible, therefore justifying the use of daymarks instead. The justification must also explain that some boaters may not understand the symbols, and that the district is therefore carrying out an aggressive public information campaign.

It was suggested that Lynda Nutt be contacted about adding this to the upcoming water-safety discussion.

Krombein said that we could get back in touch with Coast Guard Power Squadron people to discuss this. She wondered if there might be a way to convince the Coast Guard to spread information about the program.

Grundhoffer said that we should talk to the Coast Guard about using their symbols on large daymark panels. He noted that, although daymarks are currently used on waterways, they do not depict these symbols.

Krombein agreed that we should get Coast Guard concurrence for this scheme. Kidby said that Navigation Branch will talk to the Coast Guard Marine Safety Office about this before any decision is made on this alternative.

Krombein summarized by saying that the choice of using nonverbal daymarks can be left to the District's discretion. The verbal sign can still be used, and that's the preference. But the daymarks represent an option that may be needed because we must do something to mark the hazards, and many sites have nothing.

There was some discussion about the guidelines for letter height/sign size as it relates to viewing distance. If there is a proposed downward deviation from the guidelines, then the district must go through the waiver process, citing reasons for not putting up the larger sign. With regard to the

nonverbal signs (daymarks), Grundhoffer will provide river width/sight distance information to Navigation Branch after Navigation Branch has talked to the Coast Guard.

### Bilingual Or Multi-Lingual Signage.

Krombein said that if a project has a large and identifiable cohort of a single foreign language minority, it is certainly a good idea to use signs in that language. But this is a decision that should be made at the project level, and it is recognized that it will always be a judgement call. The instructions for foreign language signage in the manual should be modified to reflect this position.

It is to be emphasized that two languages on one sign are not allowed.

### Metric:

The issue came up of whether the metric system should be used and/or addressed in the sign manual. Kidby said that a section on the metric system would not be appropriate at this time.

### Accessibility Signage:

It was noted that it will be 18 months before we see something final from the committee that is addressing accessibility.

Holmberg noted that some changes can be made now. His district, for example, has had success with installing push plates for restroom doors with the male and female symbols etched right on them. Stokes warned against relying too much on Braille to assist visually-impaired visitors, due to the fact that only 10% of that population read Braille.

There was general agreement that no substantial investment in accessibility signage should be made at this time; there's no point in spending money when we're not sure it's necessary. Krombein advised that we need to see some guidelines before we advise projects to make changes in signage.

Stokes proposed that at some time in the future we add an accessibility section to the sign manual.

### Boundary Signs:

Wallace noted that Section 10 in the sign manual creates problems. For instance, even the largest Wildlife Management Area sign is very small. Another problem is that there are thousands of pre-manual non-compliant signs in place. Some additional complaints: The signs are too small and the color is hard to spot through brush. Furthermore, on vertical post signs, the information at the bottom is often hidden by grass. Finally, there is no Wetland Management Area sign.

Stokes stated that the Wildlife sign format should be used with the word "*Wetland*" substituted. (Wildlife Management Area signs are on p. 10.6.) She also noted that you can change the wording on these signs as necessary. Just because the exact sign is not found in the sign manual does not

mean you cannot change the wording to meet site specific situations. You cannot change format, color, etc. (Of course Danger, Warning and Caution signs are a different matter.)

To solve the problem of small sign size, it was suggested that an option be included in the matrix on the Sign Standards Manual page to allow a sign of up to 12 x 12-inches. This would enable all necessary information to be included on the sign.

The problem of project personnel bootlegging these signs was also mentioned. Stokes urged that staff seek the guidance of their district sign program manager rather than resort to bootlegging. Wallace noted that some project staff still do not understand that you can change the dimensions of a sign if you leave the proportions and format the same as in the manual. Holmberg said that he has suggested some alternative wording in the manual to clarify what's mandatory.

#### Training:

Holmberg suggested that a cadre of trainers be created that would travel to the divisions to conduct training aimed at project sign program managers. This would be especially effective once the Sign Standards Manual is on the Internet.

Grundhoffer observed that Congress has approved five lock extensions on Mississippi River. Therefore, those sites will have signs funded with construction dollars, and that will account for 20% of the signage on the Upper Mississippi River. However, the completion of that construction is still some distance in the future.

#### Industry News:

It was noted that representatives of the sign materials industry have indicated they might lobby Congress for more money for the Corps sign program. If this effort were successful, it would be unfortunate for those districts that have not requested sign money in their budgets. They would not be able to receive any supplemental money that Congress might make available.

#### Finally:

The meeting ended on a dramatic note. Holmberg announced that it was former Sign Advisory Work Group member Bob Heald who designated Holmberg as Chair for Life. Now that Heald has retired, Holmberg feels that the honor no longer applies and he would like to resign from the position. On a more practical note, he announced that there is a possibility of his leaving the Corps in the not-to-distant future. It would therefore be better if someone else took over as Chair.

Stokes was nominated and after some discussion accepted the nomination. The Work Group unanimously voted her Chair.