

# MAP MODERNIZATION SUMMIT APRIL 23-24, 2001 FEMA HQ

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MODERATOR: Allyson Lichtenfels

ATTENDEES (for all or portions of summit):

FEMA HQ, Mitigation Directorate: Margaret Lawless, Acting Executive Associate Director for Mitigation, Mike Buckley, Director of Technical Services Division; Fred

Sharrocks, Chief of Mapping Support Branch; Matt Miller, Chief of Hazards Study Branch; Doug Bellomo, Bill Blanton, Helen Cohn, Mark Crowell, Cindy Croxdale, Anne Flowers, Mike Grimm, Cecilia Lynch, Sally Magee, John Magnotti, Melissa Mull, Phil Myers, Katie Paulson, Max Yuan.

Map Service Center: Kathy Miller, Brenda Walguarnery.

FEMA Region II: Paul Weberg

FEMA Region III: Marty Frengs

FEMA Region VI: Jack Quarles

Michael Baker Jr. Inc.: Jim Murphy, Fernando Pasquel, Dick Wild.

Dewberry & Davis LLC: Tony Hake, Martin Jones, Tim McCormick, Zekrollah Momeni, Jim Ochse, Jerry Sparks.

PBS&J: Vince DiCamillo, Paul Rooney, Tom Schweitzer.

Joining via teleconference: John Liou, Larry Basich, Ken Hinterlong, Todd Davison, (our apologies if we missed anybody).

## PURPOSE OF SUMMIT

To report on status of objectives, to report on ongoing actions and identify future objectives, and to keep staff focused on the goals of the Map Modernization Plan.

## AGENDA

Exigencies of scheduling necessitated changes; original agenda attached as Appendix A.

APRIL 23, 2001

### 8:40 Matt Miller-Welcome

Matt Miller gave a brief introduction to the summit attendees, including an overview of why the Map Modernization Plan was initiated, and he emphasized that the Map Mod effort should be considered as a continual improvement, not as a single thrust that is completed and then forgotten.

### 8:45 Introduction/Overview of Map Modernization Plan-Allyson Lichtenfels

Allyson Lichtenfels reviewed the original 38 Map Mod objectives, of which 21 or 22 she conjectured are still active. She also acknowledged Mary Jean Pajak's efforts on the Map

Modernization Plan. The objectives are listed below, with Allyson's comments on status (she indicated that some changes may be warranted regarding status at conclusion of summit, based on presentations and comments).

1. Outreach. Active.
2. Base Map Standards. Follow-up note: Objective completed.
- 2.5 Assessment of Advanced Technologies. Active. (Matt explained why the numbering system included 2.5.)
3. Flexible Spending Plan That Maximizes Alternate Sources of Funding. Not considered an active Map Mod objective, but ongoing in general.
4. DFIRM 2.0 and 2.1 Specifications. Essentially completed. This initiative morphed into DFIRM database.
5. Develop Cooperating Technical Community (CTC) Program. Completed as a Map Mod objective, although effort continues and has been changed to Cooperating Technical Partner (CTP).
6. Initiate Pilot CTCs. Completed as Map Mod objective, but ongoing, and the "pilot" has now been dropped from the CTPs.
7. Bring Cooperative Initiatives to Successful Completion. Follow-up note: All cooperative initiatives closed out in 1999. Maryland and New York cooperative initiatives may have been added to CTP Program.
8. Future Conditions Hydrology. Active.
9. Technical Services Division Web Site Architecture. Considered as completed Map Mod objective, although routine maintenance of the Web site continues.
10. National Geodetic Survey Partnership. Active.
11. US Geological Survey Partnership. Active.
12. US Fish and Wildlife Service Partnership for Coastal Barrier Resources System Mapping. Active.
13. Post-Flood Hazard Verification. Active.
14. Bring Call Center On Line. Completed.
15. LOMA 2000. Active.
16. LOMA/LOMR-F Delegation Authority. Active.
17. New Study Process. Active, and mentioned as "very important."
18. Multi-Year Contracting. Not considered an active Map Mod objective, but ongoing in general.
19. Needs Assessment. Active.
20. Monitoring Information on Contracted Studies (MICS). Active.
21. Revise FEMA 37. Active.
22. Revise Guidelines and Specifications for Technical Evaluation Contractors. Active, although changed to Map Coordination Contractors.
23. Map Coordination Contracts. Completed.
24. Map Service Center Contract. Completed.
25. Alluvial Fan. Active.
26. Regulatory Reform of Section 65.5. Final Rule expected to be published week of April 23.
27. Riverine Erosion. Active.
28. Coastal Erosion. Active.

29. Maintenance-Level Research on Coastal Erosion. Active.
30. Community Rating System Task Force. Not considered active Map Mod objective, but ongoing in general.
31. Finalize V-Zone Mapping Guidelines and Specifications. Follow-up note: FY 1999 Progress Report indicates deferred objective.
32. Memorandum of Understanding with Department of Defense. Active (Follow-up note: Later determined to be completed).
33. Revise *Appeals, Revisions, and Amendments to NFIP Maps: A Guide for Community Officials*. Follow-up note: FY 1999 Progress Report indicates deferred objective.
34. FEMA Representation at United Nations' *Year of the Oceans* Conference. Follow-up note: This objective was completed; FEMA participated in the conference.
35. Improve LOMR Process. Active.
36. Biennial Assessment of User Fees. Not considered active Map Mod objective, but ongoing in general.
37. Identify Regulations and Statutes that Impede Map Modernization Plan. Active.

9:00 FEMA Map Assistance Center-John Magnotti

John gave a brief overview of the Call Center. He then discussed accomplishments to date, including:

- Consolidation of the Call Center into one facility at D&D. He indicated that Baker and PBS&J still receive calls when the caller needs answers to specific case-related questions.
- Provided bilingual staff (Spanish and English).
- Training provided to Call Center staff, including familiarization with the LOMA/LOMR-F processes.
- Monthly bulletins are provided on [www.floodmaps.net](http://www.floodmaps.net).

John discussed future projects involving the Call Center, including:

- Use of Call Center for outreach and marketing.
- Provision of feedback to those who maintain the FEMA Web site, based on incoming calls.
- Managed growth of Call Center, if increased demand requires growth.

Matt Miller wanted to ensure that the Call Center does not fall victim to "mission creep," in light of the discussion of future projects. He asked if we were asking too much of Call Center staff. John indicated the positive aspects of involvement of Call Center staff with outreach activities, which tie into what they already do. He also indicated that Call Center staff currently perform FEMA-support activities when call volume is low, so he does not believe their responsibilities are excessive.

John indicated that there is communication among the call centers (Map Service Center and FIA), but not much overlap among call centers, as each has specific target.

It was asked when the Call Center transfers calls to FEMA staff. John said that there are occasional transfers, when warranted. Other staff discussed when they had received transferred calls and indicated that the transfers were appropriate. John emphasized that the Call Center strives to handle all inquiries within the call center.

John indicated that the most common inquiries were LOMA-related calls.

#### 9:15 Web Site-John Magnotti

John gave an overview of the Web activities. He indicated that the philosophy of the Web site is to provide information and education and to provide Web-based access to FEMA processes, such as LOMA applications. He also said that the initial effort was to get all paper products on the Web, and efforts continue to provide online training and to gravitate much of our “business” online.

John reviewed the accomplishments to date, including:

- the creation of in-house protocols (i.e., guidance on how to ‘do’ Web pages for our site), QC procedures, tracking mechanisms, and a style standard for the Web;
- the posting of much material on the Web, including flash tutorials, the only part of the FEMA Web site to have flash tutorials—since last October, our tutorials and associated movie clips have been accessed 14,000 times;
- the provision of up-to-date status of LOMCs;
- the posting of Congaree River data for the Richland and Lexington County, South Carolina, studies;
- making the site handicapped accessible; and
- providing listservs, which are automatic, free updates about specific topics that are sent to those who sign up for them.

John discussed future projects pertaining to the Web site, including:

- posting of tutorials on the Web, including RASPLOT, NFF, LOMRs, Disasterville, Coastal flood hazard analyses, MNUSS, MICS, NFIP overview, GIS III (third in the series), and LOMA/LOMR-Fs;
- posting of CBRS LOMRs on the Web;
- posting final notices on the Web (Matt clarified that brief notices still would need to be published in newspapers; the Web and the call center would supplement those newspaper notices);
- enhanced status;
- an educational site for children; and
- posting of back-up data on the Web.

Matt said that we have done a good job of putting substance on the Web, and he mentioned the value of the listservs, which help to counter the criticism that FEMA does not provide adequate notice of changes to the NFIP.

John indicated that Map Mod objective leaders should contact him if they want to post information on the Web. John emphasized that objective leaders are responsible for the content of their Web postings. John also indicated that FEMA tries to ensure that the different FEMA Web sites are coordinated by having periodic meetings with those responsible for the various Web sites.

A discussion ensued about putting too much information on the Web, thereby overwhelming those searching the site. John discussed plans for better navigation on the Web site to address this potential problem.

Finally, John discussed the statistics gathered about the Web site (500,000 visitors per year; 240 gigabytes downloaded or viewed yearly; 5,000 MT forms downloaded every month). John indicated that there are plans to gather detailed data about Web site hits so that unused or underused pages can be deleted, if appropriate.

#### 10:00 Cooperating Technical Partner Program-Katie Paulson

Katie provided an overview of the CTP Program, an explanation of name change from “Community” to “Partner” to better describe the entities that participate, and where we hope to go with the CTP effort. She then discussed the accomplishments to date:

- the CTP program has been successfully established (there are now nearly 70 CTPs, and all Regions now have them);
- the CTP program has leveraged funding (thus far, the partners are providing roughly 60% of the total costs of map production through the CTP Program; another estimate shows that FEMA produces through the CTP Program roughly 2.5 map panels for the cost of 1 panel);
- CTP training has been provided;
- the CTP Web page was created; and
- the CTP Database was created.

Katie discussed the types of agreements in which CTPs can participate:

- needs assessments,
- coastal analyses,
- digital base map sharing,
- digital base map inventory,
- DFIRM preparation,
- digital topographic data development,
- H&H analyses and floodplain mapping,
- redelineation of floodplains using updated topographic data,
- refinement of Zone A delineations, and
- other miscellaneous tasks.

Katie also discussed training courses held for local, regional, and state agencies and mini-workshops that have been developed. She said the training courses cover the following topics:

- Coordination and Processes,
- Scoping and Needs Assessment,
- Hydrology,
- Hydraulics,
- Managing CTP Agreements,
- Procuring and Managing Contracts,
- Digital Topographic Data Development, and
- Digital Mapping.

Katie discussed the CTP Web page:

- it provides guidance documents, fact sheets, and templates;
- it provides CTP news by State; and
- it includes success stories.

Katie discussed the CTP Database:

- it is for FEMA and contractor staff;
- it has data entry, view, and report functions;
- it has a comprehensive catalog of all CTP agreements and activities;
- it is useful for developing management reports; and
- its data are used to update the CTP Web page.

Katie then discussed future plans for the CTP Program, including:

- a change in the format of the Mapping Activity Statements to make them easier to use through template inserts into an established shell,
- integration of the optimized study processes into the CTP Program,
- incorporation of “best practices” at the Regions into the CTP Program (for instance, Region III requires a written proposal from any potential CTP to ensure that the CTP has the ability to perform the necessary work), and
- incorporation of the new scoping procedures into the CTP Program.

In response to a question, Katie indicated that there are no plans yet to take the training program on the road until it is well established at EMI. Ultimately, she understands the need for training at the Regional Offices because it is the Regions that will most directly administer the CTP efforts. It was pointed out by Regional staff that there is a need for training at the Regional Offices before Memoranda of Agreements with CTPs are signed.

In response to a question about training on the Web, Katie indicated that the complexity of the CTP Program does not lend itself very well to self-teaching methods. Matt indicated that with the large number of communities in the NFIP, the Web will need to be used to disseminate training.

Katie indicated that it is reasonable for the CTPs to use MICS and indicated that the CTP database was not intended to supplant MICS. Matt mentioned the need for accountability with the CTP Program and that MICS would certainly help in audits of the CTP Program.

Katie indicated that more than one CTP can contribute to a single element of the mapping process. Katie then discussed steps taken to ensure that no duplication of efforts takes place.

Katie discussed issues to be considered. She mentioned the need to avoid shelving of products created out of the CTP effort, as well as the need to better QC any documents (one set of documents did not include state in which the CTP was located, for instance). Katie mentioned the need to better track the leveraging of funds, as this is one of the primary factors upon which the CTP Program will be judged. She also said that cost-sharing arrangements should be part of the overall CTP Program.

It was mentioned that a basic benefit of the CTP Program is that it may speed production of FISs and FIRMs. Matt Miller said, however, that the CTP Program should not be oversold; otherwise, it will fail. If the CTP's results are not better than the results of doing mapping the old way, the CTP Program will fail. However, Matt specifically said to be careful with the leveraging statistics because they are based on estimates and not actual results.

Katie was asked if a potential CTP had ever been rejected. Katie indicated that guidance documents being produced will clearly provide criteria for qualifying as a CTP. The need for the capability to reject unqualified CTP applicants was mentioned. This led into a discussion of the quality of submittals from CTPs thus far. The consensus was that it was too early to make judgements about the overall, average quality of submissions based on the limited number of CTPs presently doing work, particularly because the first few CTPs were carefully chosen to ensure that early CTPs would be successful. Matt weighed in about the need to be flexible to help ensure CTP success (he used the failure of the Accelerated Map Revision program as an example of inflexibility killing the effort). However, Matt also emphasized that we should identify the core of what is not flexible, including depiction of the SFHA, BFEs, portions of the title block.

Lastly, there was a discussion about subcontracts involved in CTP agreements. Code of Federal Regulations 44, Part 13, discusses the requirements that local governments must follow when using Federal funding for a project (although there are special rules for Architectural and Engineering firms), and Part 13 is mentioned in the Mapping Activity Statement templates.

#### 11:30 Automated H&H-Sally Magee

Sally gave an overview and noted that this was not one of the original objectives. She provided the objective statement, which was to perform an assessment of and facilitate applications of available technologies used to automate floodplain analyses and mapping, including Geographic Information System (GIS), software applications, and database structures.

The goals of the objective were to assess current technology, understand both the benefits and drawbacks to automated H&H, and develop a Web site for partners to facilitate the use of automated programs and the integration of data into modeling and mapping.

The Web site is currently being developed. It will include a list of tools, a draft policy for acceptance of tools (not to be confused with acceptance of models—most of the tools provide automated input into models, but the model must be on accepted models list), and an automated H&H tutorial. The draft policy and tutorial are still in development.

Future actions include having the aforementioned policy signed and implemented and completing the Web site. The draft policy does not need OGC review.

12:00 LUNCH

1:00 Mike Buckley

Mike was originally scheduled to speak in the morning during the introduction, but Director transition tasks prevented him from speaking then. He is glad to report that Director Allbaugh is focused on mapping. Unfortunately, the Director is hearing negative things about the mapping inventory, although he understands that funding is the obstacle, and he does not question the need for money. In summary, Mike said that we have made good progress, but we need to keep going, and this meeting may help rejuvenate our efforts.

1:15 Coastal Erosion Studies-Mark Crowell

This objective arose from Section 577 of NFIRA, which mandated that FEMA conduct an “evaluation of erosion hazards.” A report was prepared by the Heinz Center for FEMA and was submitted to Congress in May 2000. The report recommended that FEMA map erosion zones and adjust insurance rates accordingly. In addition, the report presented several policy options. Mark indicated that this Map Mod objective has been completed, but that more work may come out of this effort. FEMA formed an erosion zone working group to examine the Heinz Center Report and make recommendations for addressing erosion hazards.

The report indicated that insurance premium income in V-Zones is about half of what it should be to properly cover the potential damage claims over the next 60 years. There are approximately 86,000 structures located in the 60-year erosion zones.

The work group evaluated five policy options:

1. Maintain the status quo.
2. Add erosion data to maps for informational purposes only.
3. Create a new coastal zone that combines the V-zone and erosion zone.
4. Map a new erosion hazards zone and charge an insurance premium surcharge.
5. Map a new erosion hazards zone, charge an insurance premium surcharge, and add specific erosion hazards floodplain management regulations.

The work group tentatively recommends that FEMA map erosion hazard areas and revise its flood insurance rates within the erosion hazard areas to more accurately reflect the increased risk from erosion. These recommendations would require congressional authority to implement.

There are some actions that could be taken that do not require congressional authority. These are:

- raise V-Zone rates (an 8% raise is scheduled to take effect in May 2001);
- put erosion hazard information on the maps for informational purposes only; and
- extend the V-Zone coastal requirements to coastal A-Zones.

Actions requiring congressional authority are:

- map erosion hazard areas for the purpose of restructuring V-Zone rating to introduce erosion-based surcharges; and
- eliminate grandfathering so that all structures that are currently mapped in V-Zones are rated using current map and current elevations.

The question was asked about an estimate of the time to map erosion areas on all coastal FIRM panels. Mark said it would take at least 3 years, assuming a continuous effort is made; obviously, if we only add erosion zones as FIRMs are being revised for other reasons, it would take longer.

#### 1:30 LOMA 2000-Mark Crowell

Mark provided an overview of LOMA 2000 (version 1.0 to be completed in June 2001, along with User's Manual and Design Manual) and provided its goals:

- automate LOMA processing (currently, 95% of documents for LOMA processing are produced through LOMA 2000);
- cut costs through automated production (estimated that LOMA 2000 saves 1.5 hours per LOMC, which now average 8 to 9 hours per LOMC); and
- digitally store the data.

In the future, LOMA 2000 will be superseded by LOMC Writer, which will be a Web-based CMIX-linked application. LOMC Writer will facilitate better data access to FEMA staff and other users and will eliminate duplicity of databases (currently, each MCC has its own database).

It was verified that there had been proper coordination with the Web staff.

Matt Miller indicated that the unit cost estimates for the LOMC production using LOMA 2000 do not include the development costs. Mark indicated that the development costs will be recouped.

#### 1:45 Zone A Refinement-Gib Jones (via telephone)

The goal of the objective was to develop guidance, tools, and the proper processes to:

- convert Zone A areas to Zone AE (i.e., add BFEs), where warranted by development;
- more accurately delineate Zone A areas that are not converted to Zone AE; and
- remove erroneous Zone A areas.

To date, a report summary and work plan were developed, which include the following recommendations:

- include Zone A areas in new scoping process;
- reinstate the use of "Limited Detail Study" for some Zone A areas;
- require a planned procedure in any CTP agreement to eventually convert any newly created Zone A areas to Zone AE;
- work with automated H&H tools to explore ways to "study" Zone A areas;
- develop a centralized, publicly available repository of existing BFE data;
- publish Zone A and BFE data in text;
- establish guidelines for determining when redelineation is appropriate; and
- coordinate redelineations with the 5-year assessment effort.

Mike Buckley pointed out that if we add BFEs to Zone A areas, the worst thing that can happen is that the BFE is appealed, and the appeal may result in better data (i.e., there isn't much to lose in adding BFEs).

Gib indicated that possible removal of some Zone A areas was considered under the original objective, but that guidelines had not been established for removal of Zone A areas.

## 2:05 Riverine Erosion Hazards-Mike Grimm

Section 577 of the National Flood Insurance Reform Act of 1994, "Evaluation of Erosion Hazards," mandated that riverine erosion hazards be studied and mapped.

The working group conducted a literature review, evaluated existing methodologies, estimated the extent of areas that would need to be mapped, conducted a cost analysis of mapping riverine erosion data, prepared a report, and submitted it to Congress. The report found that there have been many studies done, and many methodologies exist for predicting erosion hazards (note that many methodologies are site-specific, though). Some communities are implementing use of erosion data in planning and permitting, but FEMA needs to assess feasibility of implementing use of erosion data at a national level. However, there is no uniformity of methodologies being used.

The report finds that it would be feasible to study riverine erosion hazards and discusses the "period" of prediction (e.g., 30 years vs. 60 years), but that the estimated costs nationally are \$200 to \$300 million. Use of erosion data in planning and permitting could be done through NFIP mechanisms or at the local level (or both).

## 2:15 Future Conditions Hydrology-Mike Grimm

This objective looks at the feasibility of providing data on what would occur to hydrology based on future land use in a community, but not considering future flood mitigation works. This objective has been completed.

The options include having the data produced by the community or by FEMA, and the data could be presented on the flood hazard maps for regulatory purposes or simply for informational purposes.

The report of the objective recommends that data developed by the community be included on the FIRMs and in the FIS report for informational purposes, but that FEMA not develop the data as normal part of a Flood Insurance Study. Proposed rule at OMB for review to be published soon.

#### 2:45 Alluvial Fan Studies-Mike Grimm

The 1996 Natural Research Council issued a report that the Technical Mapping Advisory Council considered. The Technical Mapping Advisory Council recommended that alluvial fan hazards be mapped and be considered in the regulations and insurance rating.

To date, the work group clarified technical procedures for mapping alluvial fan hazards, which emphasize a flexible approach. Turnaround times for map actions involving alluvial fan hazards should be reduced by the implementation of standard procedures.

Mike indicated that the guidelines address how existing alluvial fan hazard delineations be treated, and Mike indicated that the fee schedule may need to be revised.

#### 3:00 Advanced Remote Sensing-Paul Bryant

Paul discussed LIDAR (Light Detection and Ranging) and IFSAR (InterFerometric Synthetic Aperture Radar). He used the Red River, North Dakota, study as an example.

He indicated that the technology is quite new, so the costs are rapidly becoming less as quality improves. He pointed out that a few years ago, only 3 firms provided LIDAR or IFSAR data; now there are at least 17 firms offering such services.

Paul was asked to clarify "resolution" and "accuracy." Resolution refers to the "post" spacing (i.e., it is horizontally based), and accuracy refers to the vertical measurements.

Remote Terrain Visualization, a remote sensing technique being developed by the U.S. Army Topographic Engineering Center, is showing promising results of 3-meter resolution.

There is joint funding between FEMA (\$100,000 in FY 2001) and NASA (\$200,000 in FY 2001) for development of merged LIDAR and IFSAR data. Paul expects documentation concerning the IFSAR/LIDAR data fusion process to be complete this fiscal year.

### 3:25 MNUSS-Cindy Croxdale

Cindy gave a brief overview, discussing the National Flood Insurance Reform Act's mandating that FEMA identify mapping needs. She discussed the evolution of MNUSS from a static CD using a DOS-based program to a more user-friendly Web-based system.

She discussed the accomplishments to date:

- enhanced MNUSS extranet released;
- guidelines written and templates created for entering needs into MNUSS;
- pilot training courses provided;
- revised reporting procedures, which has improved the data; and
- coordination with the State NFIP Coordinators.

Cindy discussed the MNUSS extranet:

- Web-based, allowing broad user access (with rights levels depending on whom is accessing);
- mapping needs summaries and statistics available nationwide; and
- ranks communities at National, Regional, and State levels.

Cindy discussed the summary of responses to mapping needs assessment contacts:

- 17,570 communities contacted;
- 6,443 (37%) responded:
  - 43% identified flood data update needs,
  - 25% identified map maintenance needs, and
  - 32% reported no mapping needs.

The planned enhancements to MNUSS include:

- addition of needs for unmapped communities in MNUSS,
- improvements to allow multi-jurisdictional groupings of needs,
- functionality added to allow tracking of resolved needs (presently, they must be manually removed after a map update),
- functionality added to allow quick generation of post-disaster mapping needs reports, and
- the incorporation into MNUSS of a history function.

Cindy indicated that MNUSS is a tool that helps in funding allocation decisions, but that MNUSS does not automate those decisions. Fred Sharrocks said that MNUSS would be phased in to the allocation decision-making process. There ensued a discussion of how data are entered into MNUSS. Mike Buckley said that the Regional Offices must use MNUSS and emphasized that it can be a great tool in funding allocation decisions and in scoping, but that it all depends on whether data are entered.

There was a discussion about inconsistencies between how costs of map updates are considered in MNUSS and in the Map Mod reports. Cindy indicated that the difference may arise because the Map Mod reporting and MNUSS have different purposes.

The question was asked about plans for another 5-year effort to obtain data (referring to the initial effort to obtain data whereby each NFIP community was contacted between 1994 and 1999 for information about map update needs). Cindy discussed the future efforts to solicit information.

#### 4:10 Monitoring Information on Contracted Studies (MICS)-Cindy Croxdale

Cindy overviewed MICS, version 1.0, which is a tool to track and manage contracted studies nationwide, to document and share essential information, and to automate certain contracted study management tasks.

MICS functions are:

- track status of projects,
- provide general SC information,
- track budgets, and
- produce special problem reports.

Accomplishments to date include:

- version 1.0 completed,
- online on the FEMA network, and
- server and database administration provided for through MCC.

Next, she discussed planned enhancements, which include:

- allowing Internet access,
- linking it to other FEMA systems,
- enhancing the query and reporting functions,
- increasing the data validation, and
- making display alerts.

Matt Miller emphasized the need for the Regional Offices to populate the database.

#### 4:25 New Study Process-Marty Frengs

Marty indicated that the objective was completed 2 years ago with the issuance of a report in 1999. Marty then discussed the report's recommendations and how we are doing with implementation of the recommendations.

One recommendation was that the same engineer manage the study through its life cycle. While this is desirable, it is not always possible; nonetheless, MICS should help address any problems caused by discontinuity in managers. He emphasized the need to ensure that data are entered into MICS to facilitate continuity in managing studies. He indicated that FEMA HQ must take the lead in ensuring data are entered, perhaps by mandating that data be entered.

The second recommendation discussed by Marty is that the 90-day appeal period be started with the issuance of the preliminary FIS and FIRM and that the 6-month compliance period should not be tied to the effective date of the FIS and FIRM. Nothing is being done yet on this recommendation.

Next, Marty discussed the need for Indefinite Delivery/Indefinite Quantity contracts, which would eliminate a lengthy procurement process for each study. These types of contracts have been started.

Another recommendation was that FEMA obtain in-house expertise in digital mapping. This has not been done, and Marty mentioned that the only FEMA staff that he knew had expertise in digital mapping is Jon Janowicz.

The next recommendation was to have OGC investigate funding options whereby FEMA can obtain funding from one source and give to a contractor. Matt Miller indicated that FEMA now has the authority to cost-share to augment appropriations. For example, a community can provide funding in support of its map update, which FEMA can use to pay a contractor to update the FIRM for the community.

Finally, the recommendation was made to combine the MCC and SC guidelines into one document. Allyson indicated that this effort is underway and would be discussed the following day.

Marty, as way of wrap-up, pushed for more Regional Engineer involvement with the MCC and study processing. Others mentioned the staffing constraints that could impede this. Marty countered that duties of the Regional Engineer be scaled back to allow them to perform what Marty believed to be their primary duty—to perform oversight of the study processing.

## APRIL 24, 2001

### 8:35 Scoping Process-Jack Quarles

Jack overviewed the objective, which was to develop guidance for scoping and to identify tools to be used in scoping to help FEMA achieve "best value" in its studies. Scoping begins when mapping needs assessment is complete. Scoping is the link between MNUSS and the actual map production.

The work group produced a final report, *Guidance for Scoping Flood Mapping Projects*, outlining the new scoping process and drafted a memorandum on January 22, 2001, with recommendations, which were adopted. The objective is completed.

Jack detailed the new scoping process and cautioned that the new process may need to be tailored to different cases—it may not work exactly the same in every case.

It was asked if some of the scoping process can be done ahead of time to eliminate the crunch of work when funding becomes available. Jack indicated that the multi-year contracts help eliminate the crunch. However, needs rankings can quickly change according to many factors (needs being newly identified; other needs being met), which reduces the ability to do much of the work ahead of time.

Jack indicated that MCCs are still to be involved up-front in scoping, as the MCCs are counted on to provide historical information and the scoping must also consider the available resources of the MCC (i.e., no use having SC do work that the MCC does not have funding to review).

The consensus was that proper scoping eliminates rework, thereby preventing study costs from spiraling out of control.

#### 8:55 Post Flood Hazard Verification-Doug Bellomo

Doug discussed this effort, which is detailed on the following Web site: [www.floodmaps.net/floodrecoverydata](http://www.floodmaps.net/floodrecoverydata). The user name is FEMADR, and the password is RECOVERY00 (user name and password should be upper case). The Web site contains templates that lead one through the process according to disaster type and location.

The objective is to develop a standard procedure for verifying the accuracy of the FIS and FIRM in flooded communities, and revise them if necessary, after a disaster declaration has been made.

The work group has produced a document detailing procedures for Post Flood Hazard Verification that can be applied nationally.

Three funding vehicles were discussed: Mission Assignments, HMTAP, and FMPCC.

Doug also discussed the post-Hurricane Floyd verification efforts in NC, NJ, and NY.

The future of this effort:

- draft a memorandum that explains how FEMA will use FY 2001 special appropriation of \$15 million from Disaster Relief Funding for floodplain mapping; and
- train the Mitigation staff in the use of NEMIS (FEMA database for contracts), which has become somewhat of an obstacle.

#### 9:10 Improved LOMR Process-Max Yuan

Max indicated that the objective name may be a misnomer, as the improvement is not in the process itself, but an improvement in the end product. The goal of the objective is to produce an improved final LOMR product. He also has received comments from users that the document is not clearly identified as a Letter of Map Revision up front.

A prototype LOMR document has been completed. It is tabular, in line with the new LOMA 2000 products, and includes a cover letter and determination documents. This:

- ensures consistency of information presented on the LOMRs and conditional LOMRs,
- allows those using the LOMRs and conditional LOMRs to more easily find information, and
- provides time and cost savings in preparation of LOMRs and conditional LOMRs.

The work group developed a prototype and distributed it for comment; unfortunately, not enough comments have been received, and Max said, "You can still send in your comments."

In the future, plans are to implement the new LOMR product and incorporate the new LOMR into the LOMC Writer program under development.

There was a discussion of how much of the document production would be automated through this process, and Max indicated that expectations were that 95% of the LOMR-related documents could be automated. The need for flexibility is important for the remaining 5% that could not be automatically generated.

#### 9:15 DFIRM Graphic Specifications-Mike Grimm

Mike gave an overview of the effort and provided the Web site address that details the specifications: [www.fema.gov/mit/tsd/mm\\_dfgr.htm](http://www.fema.gov/mit/tsd/mm_dfgr.htm).

New options are being discussed regarding specifications. Some of the first prototypes were judged to be too cluttered. There was also a discussion of color vs. black and white. Obviously, the use of color increases production and printing costs. Matt Miller and Cecilia Lynch discussed whether the increased printing costs at GPO could be recovered through higher costs for the maps. Cecilia said this issue had not yet been examined.

There was a discussion about allowing the communities to print on demand from CDs. One option discussed was to send a limited number of hard copies of the DFIRM to the community and provide a CD for any additional copies the community needed to print on its own. There was a discussion about whether black and white versions could be a printing option to facilitate copying (Regional Office staff mentioned a problem with photocopying the DFIRMs).

Finally, there was a discussion about putting version numbers on the various DFIRMs so that community comments could be tied to a particular version of the DFIRM (there have been different versions issued as the specifications have been changed). Also, it was cautioned about attributing community displeasure with a DFIRM to the specifications when in reality it may be that the community does not like the DFIRM because BFEs have risen.

#### 9:35 DFIRM Spatial Database-Allyson Lichtenfels

Allyson overviewed the database effort and gave the Web site address for more information: [www.fema.gov/mit/tsd/mm\\_dfdb.htm](http://www.fema.gov/mit/tsd/mm_dfdb.htm).

She highlighted features of the standard database and discussed planned enhancements.

She discussed two different aspects of the database—the data that would be required of the SC or CTP and the data that would be distributed to the community.

Fred Sharrocks asked about costs for providing data. Matt warned against overpricing, thereby discouraging use of the database. If the cost of the data are too high, it does not provide an incentive for people to migrate away from the use of paper copies of DFIRM.

There was also a discussion of cost implications to the SCs. It has not yet been resolved how the data are to be provided from the SCs.

#### 10:00 Use Policy of DFIRM Data and the View Tool-Doug Bellomo

Doug indicated that OGC input is needed regarding the establishment of a use policy whereby the vector data can be used to make official determinations of a property's location relative to the floodplain. Right now, only the official paper copy of the DFIRM can be legally binding in making determinations of a property's location. One problem pointed out is that the vector data could be put over a different base map than was originally used, and there may be problems with relative positioning when base maps are switched. This issue needs further examination.

Doug then discussed the view tool, which allows users to see the DFIRM, even if they do not have sophisticated GIS software on their computer (i.e., the view tool allows people to see the DFIRM without having the paper copies). Again, it was questioned whether a printout from a CD is considered an official map for determinations. Doug indicated that the present ruling is that if the copy is exactly the same as the paper DFIRM, it can be used for official determinations.

Doug indicated that no representatives from determination firms or lenders participated in the use policy group.

Fred Sharrocks asked about updating the DFIRM database, indicating that an official version would need to be saved that is tied to the effective DFIRM, but that a working copy could then be made for updates. Once a new DFIRM is issued with those updates, that version then becomes the official version of the DFIRM data.

#### 10:45 Map Service Center-Kathy Miller

Kathy indicated that this objective has been completed. Its goals were to award the MSC contract and to become a digital distribution center.

The accomplishments of this effort are many:

- created a separate facility for negatives and other products (ensures, for instance, that a fire would not destroy all paper copies and negatives together);
- provided Internet access to the MSC, including an internal Intranet for FEMA, MCC, and SC staff;
- provided dedicated fax service;
- identified system errors and improved reporting procedures;
- conducted a full inventory of existing stock and made a better inventory system;
- provided for archiving of superseded products and provided way to track them;
- developed distribution plan;
- developed naming conventions for products;
- established a digital repository;
- developed e-commerce options; and
- began scanning old maps and studies that are not presently digital.

In the future, plans are to:

- allow fee-exempt customers to obtain products online,
- integrate the online store with FAMIS database,
- enhance the geo-query capabilities for ordering products,
- populate the digital warehouse,
- determine proper fees for products (production costs are currently not recouped, only the printing and distribution costs),
- deliver more products digitally, and
- build a CIS interface.

The work group's recommendations involved three areas: the printing of products, the customer interface, and the inventory. The recommendations regarding printing are:

- to provide print-on-demand capabilities,
- to assess color printing options, and
- to examine using a private printer instead of the GPO (immediate consensus was that this is not an option).

The recommendations regarding the customer interface are:

- to enhance the Web site,
- to create a geo-index,
- to provide links on the Web site to other FEMA sites,
- to accept all orders and payments online,
- to modernize the telephone system with links to the TRC and FEMA Publications lines,
- to implement a customer feedback form, and
- to create an MSC newsletter and briefing packet (the packet has already been produced).

The recommendations regarding inventory are:

- to scan all effective maps,
- to implement bar code technology,

- to modify disaster response procedures and provide a single point of contact at the MSC, and
- to formulate a corrective plan for addressing out-of-stock products and back-ordered products.

There was a discussion of the need to archive superseded maps, which is presently not part of the standard procedures. It is expected that a digital archive will resolve this problem.

Finally, there was a discussion of LOMC distribution. The ultimate goal is to link the LOMC to the map panel so that map users can easily identify when a panel has been revised by a LOMC.

#### 11:25 Outreach-Anne Flowers

This objective is considered complete, although outreach activities always continue and should migrate to each individual objective.

Initially, the outreach effort was to get the word out about Map Modernization. Anne discussed previous outreach efforts, which include the newsletter, *Work in Progress*, which was then made into a Web-zine. *Work in Progress* accomplished its goal of alerting the FIRM user community to the plans to modernize the mapping. After several issues of the Web-zine, its utility was no longer considered essential, as the user community was then aware of the Web site for Map Modernization, and the outreach efforts then consisted of ensuring the Web was up-to-date.

Outreach efforts also consist of booths and presentations given at conferences, as well as the creation and distribution of fact sheets. In addition, there are outreach efforts associated with the Technical Mapping Advisory Council.

#### 11:35 Margaret Lawless

She gave kudos for the process and product improvements as a result of Map Modernization, and she reiterated that we have accomplished much. She discussed funding searches, as well as ways to stretch existing funding, including inter-agency participation in the mapping. She was in agreement with Mike Buckley's remarks that mapping is a concern of new Director Allbaugh.

#### 11:40 LOMA/LOMR-F Delegation-Matt Miller/Tony Hake

Matt Miller briefly discussed LOMA/LOMR-F delegation. Some states want to take over LOMA/LOMR-F delegation. For instance, North Carolina would like to initiate an 18-month program. Concerns include staff requirements and metrics by which to measure success.

Tony gave overview of this effort. Tony discussed the efforts to improve the LOMA/LOMR-F process through LOMA 2000, as well as other initiatives that have improved the LOMA/LOMR-F process. LOMA/LOMR-F delegation, however, is still in discussion stage, as

there are many legal and procedural aspects to consider. There was a discussion that many communities seem to be unaware of the work and responsibilities involved with taking on the issuance of LOMAs and LOMR-Fs.

#### 11:45 Review of Regulations and Laws Regarding Map Modernization-Cecilia Lynch

Cecilia indicated that the goal of this objective is to evaluate NFIP regulations and statutes for potential effects on the Map Mod Plan and to make recommendations to remove impediments in the regulations and statutes to modernizing the maps.

The work group has accomplished much, including:

- identified specific regulations that affect the Map Mod Plan and
- prepared and distributed regulatory and legislative impact statements and recommendations in a report dated March 2000.

The work group offered 8 recommendations:

1. To include use policy for DFIRMs in the regulations.
2. Change regulations to allow future use conditions to be shown on the FIRMs.
3. Revise guidelines for determining alluvial fan hazards.
4. Make appropriate revisions to regulations to consider riverine erosion, after Congress reviews the submitted riverine erosion report.
5. Allow FEMA to accept funding in cost-sharing arrangements.
6. Ensure that optimized study process has full MT staffing support and is not impeded by regulations.
7. Add wording regarding the 90-day appeal period to clarify the version of the study that is subject to appeal.
8. Make regulatory changes related to the improved LOMR product.

#### 12:00 Partnership with the Fish and Wildlife Service-Doug Bellomo

This objective is essentially complete, in that it was to establish the partnership. An agreement was signed, and the partnership is now working effectively to allow CBRS area boundaries to be put on the FIRMs. There are continuous efforts to coordinate between FEMA and the Fish and Wildlife Service. The improved LOMR will also need to be considered in processing of CBRS LOMRs.

Doug discussed a report about the partnership and the mapping of CBRS that was submitted to Congress. This report was an informational report to Congress, and it is not anticipated that Congress will create any new legislation based on the report.

Doug discussed a transfer of funds from Fish and Wildlife to FEMA to cover the costs of putting CBRS on the FIRMs.

Recommendations for the future include:

- adding an interface on the Web for CBRS data updates and
- the posting of CBRS LOMRs on the Web.

## LUNCH

### 1:25 National Digital Orthophoto Program (NDOP)-Matt Miller

Matt provided overview of the objective, which is to form a partnership with the USGS to provide good base maps for the FIRMs. John Gambel represents FEMA on the NDOP. This objective was initiated because FEMA was spending too much on base mapping rather than flood hazard analyses and mapping, there was redundancy of work between agencies, and the existing FIRMs were not horizontally controlled.

As a result of this effort, FEMA has now adopted DOQs as the default base map. This effort has allowed many government agencies to pool resources, not just FEMA and USGS. FEMA's budget includes \$400,000 "no-year" funding that can be used by the Regional Offices to buy base maps if no community maps are available.

### 1:30 National Digital Elevation Program (NDEP)-Sally Magee

Sally gave an overview of the objective and indicated that FEMA has played a major role in this effort. This partnership allows the pooling of resources to obtain digital elevation data, and it grew out of a subcommittee of the Federal Geographic Data Committee (FGDC). The NDEP was formalized with the signing of a charter in September 2000 and includes a Technical Subcommittee and a Project Coordination Subcommittee.

The effort promotes the exchange of data among agencies and provides standards and guidance regarding the data. Its goals are to:

- coordinate the requirements for the acquisition of digital data among all Federal agencies;
- enhance data sharing among governmental, private, and academic entities;
- eliminate redundancy of work among agencies;
- provide standards (with some flexibility);
- leverage resources for obtaining elevation data; and
- ensure accuracy of the data.

The members of the NDEP are FEMA, Bureau of Land Management, Natural Resources Conservation Service, U.S. Fish and Wildlife Service, USGS, NOAA, National Imagery and Mapping Agency, USACE, NASA, and National States Geographic Information Council. Others may be added.

Right now, efforts of the Project Coordination Subcommittee include inventorying data that various agencies have that can be shared. Sally indicated that the sharing of data is to be of public domain data, not private sector data.

In the future, NDEP must be considered in any new study. Also, the Regional Offices must inform FEMA HQ of any data that can be shared. Finally, the MCCs must keep track of digital data that can be shared. It was pointed out that there needs to be standard definitions of new data for the sharing effort—for instance, it may not be useful to define a digital scan of an old USGS map as "new" data.

2:00 Wrap Up-Allyson Lichtenfels

Allyson noted that the presentation on the NGS will not be given, as John Gambel could not attend the summit.

The objectives were then listed, with notation regarding status, as shown in the following table:

Objective	Status	Comments
Automated H&H	active	
Base Map Standards	complete	
Zone A Refinement	active	schedule to be determined
Alluvial Fan Flooding	complete	guidelines available
Coastal Erosion Studies	complete	may result in new objective
Future Conditions Hydrology	complete	developed recommendations
Riverine Erosion Feasibility	complete	report prepared
Remote Sensing Technologies	active	placeholder in G&S; related to NDEP
MNUSS	active	placeholder in G&S
MICS	active	will be in G&S
New Scoping Procedures	complete	in G&S
Post Flood Hazard Verification	active	templates developed
LOMA 2000	complete (June 2001)	will morph into LOMC Writer
Improved LOMR Process	active	related to LOMC Writer
DFIRM Products	active	handout provided for sub tasks; in G&S
LOMA/LOMR-F Delegation	on hold	not intended for G&S
Outreach Strategy	complete	now incorporated into each objective; this objective may now be considered as "program support"
Regulations and Laws	active	recommendations provided as they are developed
NGS Partnership	active	in G&S
Fish and Wildlife Partnership	active	in G&S
NDOP	active	in G&S
NDEP	active	in G&S
CMIX	new	

TMAC II	new	
Data Archiving	new	
Superseded FIRMs	new	
FIS Report Redesign	new	
Web Maintenance	new	
Study Rollout/"Best Practices" Guidance	new	tentative objective title
Seamless Mapping	new	
Subsidence Regulations	new	
Optimized Study Process Development	complete	added to list after meeting
CTPs	active	added to list after meeting
Scoping Process Implementation	new	added to list after meeting
Optimized Study Process Implementation	new	added to list after meeting
Future Conditions Hydrology Implementation	new	added to list after meeting

## Map Modernization Meeting Agenda

<b>Subject:</b>	Map Modernization	<b>Date &amp; Time:</b>	April 23-24, 2001
<b>Lead:</b>	Allyson Lichtenfels	<b>Location:</b>	FEMA Conference Center
<b>Attendees:</b>	Technical Services Division Staff, Regional Engineers, Map Modernization Objective Leaders, Selected MCC Staff		
<b>Purpose:</b>	Discussion and planning for completion of Map Modernization		

Monday, April 23, 2001			
Item	Description	Lead	Est. Time
1.	Where is Map Modernization going?	Mike Buckley/Fred Sharrocks/Matt Miller/Allyson Lichtenfels	8:30-9:30
2.	FHM Website and FMAC Updates	John Magnotti	9:30-10:00
3.	Integrating CTPs into the Flood Mapping Process	Katie Paulson	10:15-12:00
4.	Objective Reports (~15 mins/objective) <b>Products and Standards</b> <ul style="list-style-type: none"> <li>• Automated H&amp;H</li> <li>• Zone A areas/Advisory BFEs</li> <li>• Revised Guidelines for Determining Flood Hazards on Alluvial Fans</li> <li>• NFIRA Coastal Erosion Studies</li> <li>• Future Conditions Hydrology</li> <li>• Riverine Erosion Hazard Area Feasibility Study</li> <li>• Advanced remote sensing technologies</li> </ul> <b>Process</b> <ul style="list-style-type: none"> <li>• Mapping Needs Assessment Process</li> </ul>	Objective Leaders	1:00-5:00

**Monday, April 23, 2001**

<b>Item</b>	<b>Description</b>	<b>Lead</b>	<b>Est. Time</b>
	<ul style="list-style-type: none"> <li>• Scoping</li> <li>• New Study Process</li> <li>• MICS</li> <li>• Post-Flood Hazard Verification</li> <li>• LOMA 2000</li> <li>• Improved LOMR Process</li> </ul>		

**Tuesday, April 24, 2001**

<b>Item</b>	<b>Description</b>	<b>Lead</b>	<b>Est. Time</b>
5.	New DFIRM Product Development <ul style="list-style-type: none"> <li>• Graphic Specs</li> <li>• Database Products</li> <li>• Viewing Tool/Use Policy</li> </ul>	Mike Grimm Allyson Lichtenfels Doug Bellomo	8:30-9:30
6.	Map Service Center Update	Kathy Miller	9:30-10:00
7.	Objective Reports (continued) (~15 minutes/objective)  <b>Other Program Improvements</b> <ul style="list-style-type: none"> <li>• LOMA and LOMR-F Delegation</li> <li>• Map Modernization Outreach</li> <li>• Regulations and Laws</li> <li>• NGS Partnership</li> <li>• US F&amp;WS Partnership</li> <li>• NDOP</li> <li>• NDEP</li> </ul>	Objective Leaders	10:00-12:00
8.	<b>Update List of Objectives</b> <ul style="list-style-type: none"> <li>• Completed Objectives?</li> <li>• New Objectives to initiate? (incl. Best Practices)</li> </ul>	Allyson Lichtenfels	1:00-1:30
9.	Developing Comprehensive Guidelines and Specifications for Flood Studies	Allyson Lichtenfels	1:30-2:00
10.	Master Schedule for Completing Objectives	Allyson Lichtenfels	2:00-3:00
11.	Open Discussion/Wrap Up	Matt Miller	3:30-4:40