

Rec'd 10 copies 7/27/89

Record - 1

Exec ofc - 1

DP-5 - 1

PD - 2

OR - 2

# RECORD COPY

\*CEORDR 10-1-2

DEPARTMENT OF THE ARMY  
OHIO RIVER DIVISION, CORPS OF ENGINEERS  
P.O. Box 1159  
CINCINNATI, OHIO 45201

CEORD-PD-N

CEORD Regulation  
No. 10-1-2

21 June 1989

## Organization and Functions OHIO RIVER DIVISION NAVIGATION PLANNING CENTER

1. Purpose: This regulation provides for an ORD Navigation Planning Center in the Huntington District office to assist the Ohio River Division in preauthorization, post-authorization, operational navigation planning studies, and associated R&D and defines the policies, responsibilities and functions of the Center and the division office.
2. Applicability: All ORD Districts
3. Reference: ER 10-1-3.
4. Policy: All District Commanders will retain primary responsibility and administrative control over navigation planning activities within their districts. All technical navigation planning activities which entail systems analysis will be performed by the ORD Navigation Planning Center. The Center may, as resources permit, provide navigation planning services to other Corps FOA's and federal agencies.
5. Responsibilities:
  - a. Division office. The division office is responsible for developing navigation program budgets and priorities and establishing and administering technical guidelines and criteria. The Chief, Planning Division in ORD shall be responsible for liaison with regional navigation interests and supervising the accomplishment of division office responsibilities. Division office responsibilities are detailed in Appendix A.
  - b. Center. The ORD Navigation Planning Center is responsible for the execution of the ORD systems analysis, economic forecasting, transportation rate analysis, and waterborne data collection programs. The Chief of the Center will schedule and budget work requirements with customer districts, other Corps FOA's, and other Federal agencies to achieve the planning and analytical objectives of the requesting agency. Basic detailed technical support responsibilities of the Center are contained in Appendix A. The approximate degree of Center involvement in district navigation planning study functions/activities is illustrated in Appendix B.

\*This regulation supersedes ORDR 10-1-2, dated 15 August 1981

CEORDR 10-1-2  
21 June 1989

6. Administrative Organization: The ORD Navigation Planning Center shall be located in the Huntington District.

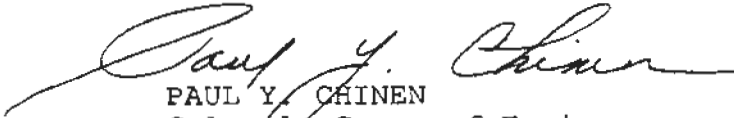
7. Technical Services. The Center will provide support for navigation planning studies within all ORD districts in accordance with technical guidelines and criteria established by the Ohio River Division. Technical oversight will be provided by the Planning Division in ORD. Technical services are described in Appendix C.

8. Work Scheduling and Budgeting: The scheduling and budgeting of navigation studies and Center input shall be accomplished consistent with the overall division program through periodic meetings between District and Center staffs. This coordination will be formalized by the preparation of the ORD Center Five-Year Plan. The District responsible for a navigation study will receive the study work allowance. Work requests and transfer of funds shall be accomplished between the requesting District and the Center at the beginning of each fiscal year by a composite transmittal of appropriate DA Forms 2544 to cover the District's programmed work for that year.

9. Establishing Center Priorities. The Planning Division in ORD will establish priorities for work to be performed in the ORD Center. Priorities will be based on liaison with regional navigation interests, advice from senior district and division program managers and HQUSACE criteria and requirements.

10. Implementation: The establishment of the ORD Navigation Planning Center as defined herein shall be effective as of the date of this regulation.

3 Appendices  
Appendix A--Detailed  
Responsibilities  
Appendix B--Functional  
Involvement  
Appendix C--Services to be  
Provided by the Navigation  
Planning Center

  
PAUL Y. CHINEN  
Colonel, Corps of Engineers  
Commanding

DISTRIBUTION B:  
CEORD-PD (10 cys)  
CEORD-RM (10 cys)  
CEORD-IM-C (2 cys)

APPENDIX A  
Detailed Responsibilities

1. Detailed Division Office Responsibilities.

a. Defining the navigation planning program of the division and prioritizing Center work to support navigation studies within the four districts.

b. Formally Monitoring center adherence to division program guidance.

c. Formally Monitoring the status of product costs and schedules.

d. Providing technical leadership including reviewing and approving changes in models and methodology.

e. Monitoring technology applications.

f. Coordinating and monitoring Center work for other Corps offices and other agencies.

g. Monitoring the performance of waterborne commerce data collection and processing by the Center for the Waterborne Commerce Statistics Center.

h. Assessing Center performance by monitoring product quality, timeliness, and customer satisfaction.

i. Providing regular status briefings to the division commander.

j. Establishing and maintaining management information systems and reports to effectively carry out oversight responsibilities.

2. Detailed Center Responsibilities

a. Development of budgets and schedules for work requested by customer districts and agencies to meet the objectives of the ORD navigation planning program.

b. Establishing procedures to ensure adherence to division office program guidance.

c. Execution of work orders from customer districts and agencies.

d. Development, maintenance and refinement of models and evaluation techniques for accomplishing system studies;

e. Collection, maintenance and periodic update of data bases, as necessary, for system studies;

f. Application of models and evaluation techniques in system studies.

21 June 1989

g. Provides status reports and other management information to division office in support of oversight functions.

In addition to technical support, the Center shall provide assistance in study administration, public involvement, plan formulation/evaluation, and other activities, as considered necessary by the requesting District, other Corps office or agency. However, the requesting office shall retain responsibility for the overall administration and conduct of navigation studies. Districts assigned navigation planning studies will be responsible for completion of those studies, with control over scoping, analysis scenarios and the direction of studies. The Center will be responsible for management and analysis of PMS data and waterborne commerce statistics but not for actual collection of PMS data. The Center will keep up-to-date and continue to improve planning methodologies and tools as required in support of District work. The Center will also prepare and submit management information reports as requested by the ORD Navigation Planning Branch in pursuit of oversight responsibilities. Specific services to be provided by the Center are defined in detail in Appendix C.

APPENDIX B  
ORD Navigation Planning Center  
Functional Involvement

<u>Major function/activity</u>	<u>Lead Responsibility</u>	<u>Degree of center Involvement in total study effort</u>
1. Study Administration	Districts	
a. Project Management		10%
b. Work Plan development		25%
c. Report writing-production		25%
2. Public Involvement Assistance	Districts	
a. Public		25%
b. Other agencies/interests		25%
3. Plan Formulation and Evaluation	Districts	
a. Definition of Alternatives		40%
b. Eval. other project purposes		-
c. Scoping system studies		40%
d. System benefit evaluation		75%
e. Conclusions and recommendations		50%
4. Environmental Assess/Impact Anal.	Districts	0%
5. Socio-Economic Assess/Impact Anal.	Districts	50%
6. Traffic and Rate Analysis	ORD Center	
a. Projections of conditions		90%
b. Transport rate anal.		90%
7. Technical Systems Studies	ORD Center	
a. Physical simulation		
1. Adapt methods/models		90%
2. Data Collection		90%
3. Application/analysis		75%
b. Economic models/benefits	ORD Center	
1. Adapt methods/models		90%
2. Data Collection		90%
3. Application/analysis		75%
8. Manage/Maintain Current data bases	ORD Center	
a. Commodity projections		90%
b. Transportation rates		90%
c. PMS	(for use and analysis, does not include collection)	90%
d. other (See Appendix A)		90%
9. Collect WCSC Data For ORD	ORD Center	100%

APPENDIX C  
Services to Be Provided By  
ORD Navigation Planning Center

1. The major services to be provided by the ORD Navigation Planning Center include the development, application, maintenance and refinement of the analytic tools and data bases necessary for evaluating the impacts (including benefits) of alternative future conditions within the Ohio River navigation systems. System analysis will include physical and economic considerations. The services to be provided by the Center in each of these areas are discussed below.

2. Physical system studies. Physical system studies involve the adaptation and application of simulation (event) modeling and other appropriate analytic tools to evaluate the capacity of system locks or river reach capacity or the physical impacts (average time in queue, traffic volume, traffic intensity, etc.) of traffic movements. These efforts would be performed through application of the Lock Capacity Calculation Model (LOCALC) and the Waterway Analysis Model (WAM), as well as through mathematical (statistical) modeling of trends in fleet characteristics and other miscellaneous parameters. A primary objective of these efforts is to provide physical lock data (capacities, lock delays) and projections of fleet characteristics (tow sizes, number of vessels, etc.) as required for input in system economic modeling, such as for the Tow Cost Model. A secondary objective is the application of system wide simulation, such as with WAM, to analyze future fleet capacities, fleet availability, system performances and lock delay projections.

3. Commodity traffic demand forecasts and transportation rate analysis. Commodity traffic demands are fundamental data in determining the need for navigation project modernization. The Ohio River Division Center will prepare and maintain a consistent system wide set of commodity traffic demand forecasts for use in systems analysis. The forecasts will be based on macroeconomic indicators, liaison with shippers and other navigation interests, and analysis of traffic trends within the system. Commodity traffic forecasts will be periodically updated and submitted for review and approval by the Ohio River Division Office. Transportation rate data and analyses are also fundamental data for use in estimating navigation benefits. The Center will collect, estimate, process, and analyze basic transportation rate data for Ohio River Navigation System movements. These data will include door-to-door rates by water and least costly overland transportation mode. Rate data will be assembled in formats suitable for input to system benefit methods and models and formats that allow for easy access.

4. Economic systems studies. The major objective of the economic system studies is to estimate the incremental system rate savings (NED benefits) attributable to alternative plans of improvement in the system. These studies would be performed through application of the Tow Cost/Equilibrium Model (TCM/E) and supporting postprocessors

and data bases. In addition to benefits, the model provides data on many other system variables which are useful in describing system economic impacts including: the time at which alternative waterway conditions will become a significant constraint to waterway commerce; the level of traffic which shippers would choose to move through the system under alternative conditions; traffic diverted to overland modes of transportation; and incremental changes in total system or specific lock delays and shipping costs for alternative improvements. Economic system studies, through the use of the Tow Cost Model, will also address the impact of user charge recovery and other significant issues on project formulation and benefits.

5. Data collection and analysis. The accomplishment of system studies requires a tremendous volume of supporting data (historical and projected.) The Centers will maintain an ongoing effort of collecting, digitizing and archiving historical waterway data and analyzing trends and will establish easy access to all data. The Center will collect, edit, and process all Waterborne Commerce Statistics submitted by operating barge line having corporate headquarters within the Ohio River Division. Processing of waterborne commerce data will be carried out in according to criteria established by the Waterborne Commerce Statistics Center. Examples of additional data bases supported by the Center include but are not limited to:

- a. Waterway system physical data and operational data.
- b. Towing equipment descriptions and utilization data.
- c. Existing and projected traffic demands.
- d. Transportation rate data.
- e. Towing equipment operating costs and fuel consumption data
- f. Commodity price and density data
- g. Port specification and loading data
- h. Barge loading/unloading times
- i. PMS lock traffic data (except for collection)
- j. Lock delay data and functions
- k. Lockage fee impacts
- l. Port costs.
- m. Modal split data
- n. Tow sizes and configuration