LOS ANGELES AND LONG BEACH HARBORS
MODEL ENHANCEMENT PROGRAM

TIDAL CIRCULATION PROTOTYPE DATA
COLLECTION EFFORT

Volume II
APPENDIXES D THROUGH I

by

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APPENDIX D: TIDAL ELEVATION TIME SERIES PLOTS

This appendix contains plots of tidal elevation time series. Primary station time series are denoted by TG*. Secondary station time series are denoted by LA* or LB*.
LA/LB TIDAL CIRCULATION STUDY, TG1S
8/4/87 @0000 - 9/7/87 @0000

HEIGHT ABOVE MLLW

4 AUG - 9 SEP 1987

LA/LB TIDAL CIRCULATION STUDY, TG2S
8/4/87 @0000 - 9/7/87 @0000

HEIGHT ABOVE MLLW

4 AUG - 9 SEP 1987
LA/LB TIDAL CIRCULATION STUDY, TG3S
8/4/87 @0000 - 9/7/87 @0000

HEIGHT ABOVE MLLW

4 AUG - 9 SEP 1987

LA/LB TIDAL CIRCULATION STUDY, TG6S
8/4/87 @0000 - 9/7/87 @0000

HEIGHT ABOVE MLLW

4 AUG - 9 SEP 1987
LA/LB TIDAL CIRCULATION STUDY, LB5A
7/15/87 @0000 - 8/11/87 @0000

LA/LB TIDAL CIRCULATION STUDY, LA1B
8/11/87 @0000 - 9/7/87 @0000
LA/LB TIDAL CIRCULATION STUDY, LB5B
8/11/87 @0000 - 9/7/87 @0000

LA/LB TIDAL CIRCULATION STUDY, TG1S
8/7/87 @0000 - 8/9/87 @0000
LA/LB TIDAL CIRCULATION STUDY, LB4B
8/16/87 @0000 - 8/17/87 @0000

LA/LB TIDAL CIRCULATION STUDY, LB5B
8/16/87 @0000 - 8/17/87 @0000

16 - 17 AUG 1987
LA/LB TIDAL CIRCULATION STUDY, LB5A
8/8/87 @0000 - 8/8/87 @0400

HEIGHT ABOVE MLLW

0.0
2.0
4.0
6.0
8.0

0000
0400

8 AUG 1987

LA/LB TIDAL CIRCULATION STUDY, LB1B
8/16/87 @0000 - 8/16/87 @0400

HEIGHT ABOVE MLLW

0.0
2.0
4.0
6.0
8.0

0000
0400

16 AUG 1987
LA/LB TIDAL CIRCULATION STUDY, LB5B
8/16/87 @0000 - 8/16/87 @0400

LA/LB TIDAL CIRCULATION STUDY, LB4B
8/16/87 @0000 - 8/16/87 @0400
LA/LB TIDAL CIRCULATION STUDY, LA4B
8/16/87 @0000 - 8/16/87 @0400

HEIGHT ABOVE MLLW

0000 16 AUG 1987 0400
APPENDIX E: CURRENT VECTOR ROSE PLOTS

This appendix contains rose plots of current vector time series. Time series are suffixed with S, M, and B, which stand for surface, middepth, and bottom, respectively.
CURRENT VECTOR ROSE

LA/LB TIDAL CIRCULATION STUDY
CM1B: AUG - SEP 1987
MEAN CURRENT VECTORS

CURRENT VECTOR ROSE

LA/LB TIDAL CIRCULATION STUDY
CM1B: AUG 1987
MEAN CURRENT VECTORS
LA/LB TIDAL CIRCULATION STUDY
CM4B: AUG - SEP 1967
MEAN CURRENT VECTORS

E7
CURRENT VECTOR ROSE

LA/LB TIDAL CIRCULATION STUDY
CM6B: AUG - SEP 1987
MEAN CURRENT VECTORS

CURRENT VECTOR ROSE

LA/LB TIDAL CIRCULATION STUDY
CM78: AUG - SEP 1987
MEAN CURRENT VECTORS
APPENDIX F: CURRENT VELOCITY TIME SERIES PLOTS

This appendix contains plots of current velocity time series. Time series are suffixed with S, M, and B, which stand for surface, middepth, and bottom, respectively.
LA/LB TIDAL CIRCULATION STUDY
CM3M: 5 AUG – 8 SEP 1987

VELOCITY IN KNOTS

5 AUG - 8 SEP 1987
LA/LB TIDAL CIRCULATION STUDY
CM4B: 8 AUG 1987

VELOCITY IN KNOTS

0.0000 08 AUG 1987 0400

LA/LB TIDAL CIRCULATION STUDY
CM6S: 8 AUG 1987

VELOCITY IN KNOTS

0.0000 08 AUG 1987 0400

F21
LA/LB TIDAL CIRCULATION STUDY
CM7B: 8 AUG 1987

LA/LB TIDAL CIRCULATION STUDY
CM8M: 8 AUG 1987
This appendix contains plots of current direction time series. Time series are suffixed with S, M, and B, which stand for surface, middepth, and bottom, respectively.
LA/LB TIDAL CIRCULATION STUDY CM4B: 5 AUG - 8 SEP 1987

LA/LB TIDAL CIRCULATION STUDY CM6S: 5 AUG - 8 SEP 1987
LA/LB TIDAL CIRCULATION STUDY
CM6B: 7 - 8 AUG 1987

LA/LB TIDAL CIRCULATION STUDY
CM7S: 7 - 8 AUG 1987
APPENDIX H: CURRENT VECTOR TIME SERIES PLOTS

This appendix contains plots of current vector time series. Time series are suffixed with S, M, and B, which stand for surface, middepth, and bottom, respectively.
CURRENT VELOCITY AND DIRECTION

SCALE: 1.0 FPS
VECTOR POINTS IN DIRECTION OF TRAVEL

LA/LB TIDAL CIRCULATION STUDY
CM2B: 7 - 8 AUG 1987
10 MINUTE AVERAGE VECTORS

CURRENT VELOCITY AND DIRECTION

SCALE: 1.0 FPS
VECTOR POINTS IN DIRECTION OF TRAVEL

LA/LB TIDAL CIRCULATION STUDY
CM3S: 7 - 8 AUG 1987
10 MINUTE AVERAGE VECTORS
CURRENT VELOCITY AND DIRECTION

SCALE: 1.0 FPS
VECTOR POINTS IN DIRECTION OF TRAVEL

LA/LB TIDAL CIRCULATION STUDY
CM4B: 7 - 8 AUG 1987
10 MINUTE AVERAGE VECTORS

CURRENT VELOCITY AND DIRECTION

SCALE: 1.0 FPS
VECTOR POINTS IN DIRECTION OF TRAVEL

LA/LB TIDAL CIRCULATION STUDY
CM6B: 7 - 8 AUG 1987
10 MINUTE AVERAGE VECTORS
CURRENT VELOCITY AND DIRECTION

SCALE: 1.0 FPS
VECTOR POINTS IN DIRECTION OF TRAVEL
LA/LB TIDAL CIRCULATION STUDY
CM6B: 7 - 8 AUG 1997
10 MINUTE AVERAGE VECTORS
CURRENT VELOCITY AND DIRECTION

SCALE: 1.0 FPS
VECTOR POINTS IN DIRECTION OF TRAVEL

LA/LB TIDAL CIRCULATION STUDY
CM7B: 7 - 8 AUG 1987
10 MINUTE AVERAGE VECTORS

CURRENT VELOCITY AND DIRECTION

SCALE: 1.0 FPS
VECTOR POINTS IN DIRECTION OF TRAVEL

LA/LB TIDAL CIRCULATION STUDY
CM8M: 7 - 8 AUG 1987
10 MINUTE AVERAGE VECTORS
CURRENT VELOCITY AND DIRECTION

\[ \begin{array}{c}
\Delta N \\
\end{array} \]

0000 0400

SCALE: 1.0 FPS
LA/LB TIDAL CIRCULATION STUDY
CM2S: 6 AUG 1987
VECTOR POINTS IN DIRECTION OF TRAVEL
10 MINUTE AVERAGE VECTORS
CURRENT VELOCITY AND DIRECTION

SCALE: 1.0 FPS
VECTOR POINTS IN DIRECTION OF TRAVEL
LA/LB TIDAL CIRCULATION STUDY
CM2B: 8 AUG 1987
10 MINUTE AVERAGE VECTORS

CURRENT VELOCITY AND DIRECTION

SCALE: 1.0 FPS
VECTOR POINTS IN DIRECTION OF TRAVEL
LA/LB TIDAL CIRCULATION STUDY
CM3B: 8 AUG 1987
10 MINUTE AVERAGE VECTORS
CURRENT VELOCITY AND DIRECTION

SCALE: 1.0 FPS
VECTOR POINTS IN DIRECTION OF TRAVEL
CM6B: 9 AUG 1987
10 MINUTE AVERAGE VECTORS

LA/LB TIDAL CIRCULATION STUDY

CURRENT VELOCITY AND DIRECTION

SCALE: 1.0 FPS
VECTOR POINTS IN DIRECTION OF TRAVEL
CM7S: 9 AUG 1987
10 MINUTE AVERAGE VECTORS
APPENDIX I: RESIDUAL TIDAL ELEVATION TIME SERIES PLOTS

This appendix contains residual plots of tidal elevation time series. Time series are suffixed with S, M, and B, which stand for surface, middepth, and bottom, respectively.
LA/LB TIDAL CIRCULATION STUDY
RESIDUAL: TG1S - TG3S

DIFFERENCE IN FT.

MEAN = -0.00834

4 AUG - 9 SEP 1987

LA/LB TIDAL CIRCULATION STUDY
RESIDUAL: TG1S - TG6S

DIFFERENCE IN FT.

MEAN = -0.00263

4 AUG - 9 SEP 1987

I3
LA/LB TIDAL CIRCULATION STUDY
RESIDUAL: TG1S - TG7S

MEAN = -0.00152

4 AUG - 9 SEP 1987

LA/LB TIDAL CIRCULATION STUDY
RESIDUAL: TG6S - TG3S

MEAN = -0.00132

4 AUG - 9 SEP 1987
LA/LB TIDAL CIRCULATION STUDY
RESIDUAL: TG7S - TG3S

MEAN = -0.00242

4 AUG - 9 SEP 1927

LA/LB TIDAL CIRCULATION STUDY
RESIDUAL: TG7S - TG6S

MEAN = -0.00111

4 AUG - 9 SEP 1927
LA/LB HARBOR STUDY
RESIDUAL: LA4B - LB4B

MEAN = 0.00252

13 AUG - 6 SEP 1987

LA/LB HARBOR STUDY
RESIDUAL: LA4B - LB5B

MEAN = -0.00010

13 AUG - 6 SEP 1987
LA/LB TIDAL CIRCULATION STUDY
RESIDUAL: TG1S - TG3S

MEAN = -0.00206

7 - 8 AUGUST 1867

LA/LB TIDAL CIRCULATION STUDY
RESIDUAL: TG1S - TG6S

MEAN = 0.01812

7 - 8 AUGUST 1867
LA/LB TIDAL CIRCULATION STUDY
RESIDUAL: TG7S - TG3S

DIFFERENCE IN FT.

7 - 8 AUGUST 1987

MEAN = -0.01529

LA/LB TIDAL CIRCULATION STUDY
RESIDUAL: TG7S - TG68

DIFFERENCE IN FT.

7 - 8 AUGUST 1987

MEAN = 0.00588
LA/LB HARBOR STUDY
RESIDUAL: LA4A - LB4A

MEAN = 0.00646

7 - 9 AUG 1987

LA/LB HARBOR STUDY
RESIDUAL: LA4A - LB5A

MEAN = 0.00885

7 - 9 AUG 1987
LA/LB HARBOR STUDY
RESIDUAL: LA4B - LB4B

DIFFERENCE IN FT.

16 - 17 AUG 1987

MEAN = -0.00438

LA/LB HARBOR STUDY
RESIDUAL: LA4B - LB5B

DIFFERENCE IN FT.

16 - 17 AUG 1987

MEAN = 0.00336
LA/LB TIDAL CIRCULATION STUDY
RESIDUAL: TGIS - LB4A

DIFERENCE IN FT.

MEAN = 0.01857
7 - 8 AUG 1987

LA/LB TIDAL CIRCULATION STUDY
RESIDUAL: TGIS - LB5A

DIFERENCE IN FT.

MEAN = 0.02212
7 - 8 AUG 1987

114
LA/LB TIDAL CIRCULATION STUDY
RESIDUAL: TG1S - TG3S

MEAN = -0.06001

0000 0400
8 AUGUST 1997

LA/LB TIDAL CIRCULATION STUDY
RESIDUAL: TG6S - TG3S

MEAN = -0.13057

0000 0400
8 AUGUST 1997
LA/LB TIDAL CIRCULATION STUDY
RESIDUAL: TG7S - TG3S

MEAN = -0.1315

LA/LB TIDAL CIRCULATION STUDY
RESIDUAL: TG7S - TG6S

MEAN = -0.00127
LA/LB HARBOR STUDY
RESIDUAL: LA4A - LB4A

MEAN = 0.01627

LA/LB HARBOR STUDY
RESIDUAL: LA4A - LB5A

MEAN = 0.00984
LA/LB TIDAL CIRCULATION STUDY
RESIDUAL: TG1S - LA1A

MEAN = -0.38098

LA/LB TIDAL CIRCULATION STUDY
RESIDUAL: TG1S - LA4A

MEAN = -0.41998