

COASTAL INLETS RESEARCH PROGRAM PROGRAM MANAGEMENT

Tanya M. Beck, Program Manager
 Marissa Torres, Deputy PM
 Mitch Brown, MVP

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WEBSITE:
[HTTPS://CIRP.USACE.ARMY.MIL/](https://cirp.usace.army.mil/)

COASTAL INLETS RESEARCH PROGRAM
 FY24 IN PROGRESS REVIEW



U.S. ARMY



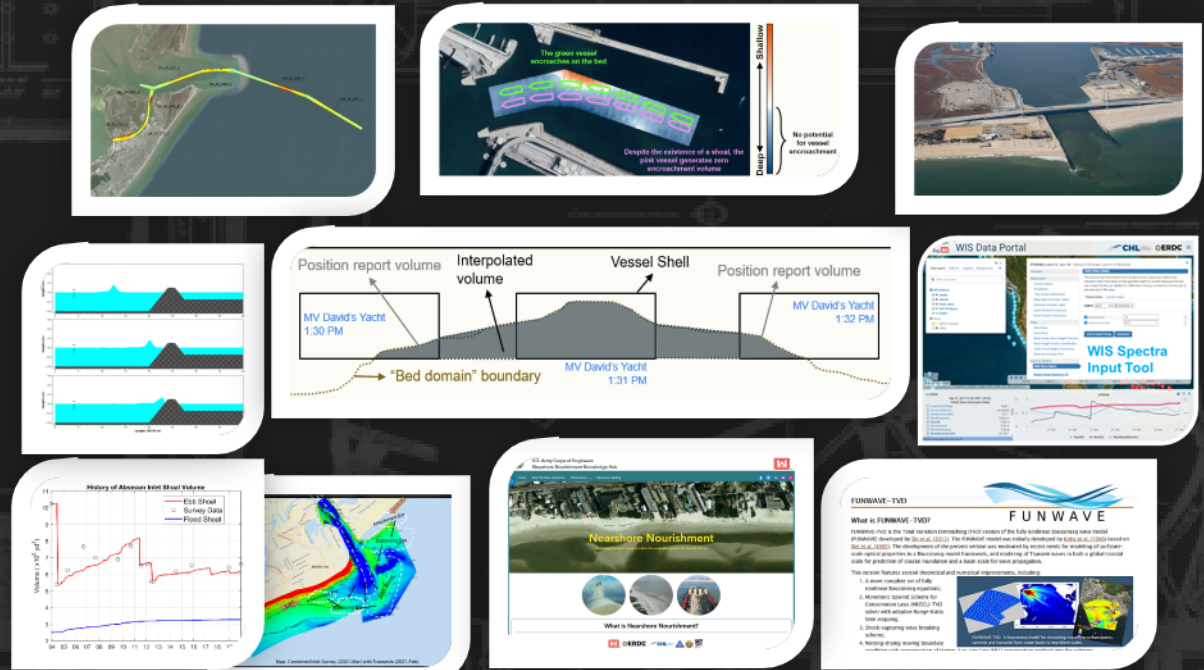
US Army Corps of Engineers®



ERDC



CIRP



Work Units	Coastal Inlets Research Program											
	FY24				FY25				FY26			
Coastal Navigation Portfolio Management (CNPM)	Performance-based metrics for managing coastal structure portfolio tested				Application of coastal structure metrics to Division (Partners)				Publications, tech transfer, and continued product maintenance for CSAT			
	Research into the optimization of navigation entrance channel and coastal structure performance and maintenance and development of portfolio-scale tools. Existing SoNs: NAV-19-1332 (AIS); NAV-21-1671 (CSAT) New Start SoN: NAV/FRM-23-1969 (CSAT sed budgets)											
Coastal Modeling System (CMS)	Field applications of 2D CMS-Aeolis Dune Designs (Partners TBD - possible: NAP, SWG)				Field application of 2D CMS-SAV Berm Design (Partners TBD)				Field applications of 2D CMS-Aeolis Dune CSRMs Breach Designs (NWD Partners TBD)			
	Research into coastal nearshore processes and development of numerical model predictive capabilities for coastal sediment transport and morphology change with a focus on BUDM and NNBFs (e.g., nearshore berms, coastal dunes, and SAV shoals). Existing SoN: NAV-21-1538 (Nearshore Proc R&D) New Start SoNs: NAV/FRM/ENV-23-1859, 1970 (Coastal NNBf/BUDM Modeling)											
Inlet Geomorphic Evolution (IGEOM)	Publication completed for InletGIS metrics and geomorphons testing application				Initiate portfolio-scale InletGIS analyses				Prototype InletGIS webapp (2.0)			
	Research into broad temporal and spatial coastal morphodynamics to improve planning-level predictive capabilities. Existing SoNs: NAV-23-1829 (Nav Tools Updates); NAV-22-1657; NAV/ENV/FRM-20-1528, 1629 (Sed DB - Citizen Scientist) New Starts SoN: NAV-23-1923 (Improving Prediction and O&M Strategies via Remote Sensing)											
Inlet Engineering Tools (IET)	Publications and workshop Tech Transfer GenCode/CMS for CSRMs/NAV Completed				Complete testing of new deep-water wave formulation for FUNWAVE-TVD (Udel Partner)				Complete publication and tech-transfer of FUNWAVE-TVD Deep-water Wave Model updates			
	Development and enhancement of coastal and navigation tools and predictive models for coastal inlet applications. Existing SoNs: NAV-21-1664, 1694, 1687 (FUNWAVE-TVD GUI, Guidance, and Development); FRM/NAV/ENV-22-1846 (GenCode LT Regional Model); FRM/NAV/ENV-21-1731 New Starts SoNs: NAV-23-1968, 1969 (Improve sed mgmt tools); FRM/NAV-23-1987 (Hindcasting coastal rubble mound reliability) Complete publication and tech-transfer of FUNWAVE-TVD GUI and guidance Field applications of Beta testing of sediment management New work units based on high ranking Navigation SoNs.											

THE CIRP'S PROGRESS

Recall that we had no budget for FY24.

We executed \$2.538M; down to \$132K Carry Over
18 R&D Projects
9 ORISE projects | 4 Contracts
114 Milestones | CHL tracked ~20 major Milestones

Tech Transfer – CIRP Tech Discussion webinars (15) and support internal and external workshops at all levels (Engineer, Divisions, Conferences); Conferences and Journal Articles
Mentoring (Torres) and growing CIRP teams (ORISE)

THE CIRP PROGRESSES

FUNCTIONAL TACTICAL CW R&D PROGRAM

FY25 has 11 R&D Projects consisting of 1 New Starts, 6 FY24 Starts, 3 Existing Projects,
and 1 final year project

PBUD is \$2.3M (1 new start) with potential to execute planned \$3.1M w/ appropriations

TECHNICAL FOCUS

Sediment Transport Morphodynamic Model Advancement (CMS/AEOLIS/GENCADE) for future NBS/NNBF/BUDM
Applications

CHS Portfolio analysis of Coastal Structures (LRD 1ST)

Next Generation Sediment Budget Tech (SBAS/CSAT)

Coastal Inlet/Port Shoal Detection & Analysis Tools (INLET ATLAS) and ML Shoal detection (CoastSat & more)

FUNWAVE-TVD Dev Updates and Guidance for Structure Overtopping Wrap

IN PROGRESS REVIEW

Review of a project or program at critical points to evaluate its status or performance and make recommendations

Planning the work, Programming the \$\$, Balance the Budget, check your Resources, and Execute the mission.

Did we do that?

REVOLUTIONIZE PROJECT MANAGEMENT

TASK NAME	CURRENT SC	ACTUAL DATE	Project Number	MILESTONE_NAME
CA/PM - ALL CIRP PROJECTS PLANNED AND APPROVED (COMPLETED PMPS)	31-Mar-23	31-Mar-23	500958	RD240 / PMP Development -- Completion and approval of PMP
CA/TT - IN PROGRESS REVIEWS	19-Apr-24	19-Apr-24	500958	RD149 / In Process Review (IPR)
CA/CSM AEOLIS - COMPLETED TESTING OF FULLY INTEGRATED 2D AEOLIS-CMS MODEL; D	19-Apr-24	19-Apr-24	500958	RD110 / Alpha Testing
CA/FY23 CMS C2SHORE- COMPLETED TESTING OF FULLY INTEGRATED SWASH, BAR, AND	15-Nov-23	15-Nov-23	500958	RD110 / Alpha Testing
CA/FY23 SMS/TT - RELEASE CMS 5.2 ERDC GITHUB (VERSIONED)	19-Apr-24	19-Apr-24	500958	RD280 / Prototype -- Completion of working prototypes
TASK 16: UPDATES & TECHNICAL SUPPORT FOR THE COASTAL MODELING SYSTEM (CMS)	30-Apr-25		500958	RD190 / Contract Award -- Date for awarding contract
CA/CSAT - CODE RELEASE WITH REPORTED PRECISION, EXPANDED DATASET (JABLTCK), PE	19-Apr-24	19-Apr-24	500958	RD280 / Prototype -- Completion of working prototypes
CA/AIS NAV - T1H: MIGRATION OF CODE BASE TO ERDC GITHUB (VERSIONED)	19-Apr-24	19-Apr-24	500958	RD280 / Prototype -- Completion of working prototypes
CA/COASTSAT - TASK 11. DISTRICT ROLLOUT AND TRAINING	16-Nov-23	16-Nov-23	500958	RD250 / Product Delivery -- Delivery date to customer (for non-documentation)
CA/FLOC - TASK 1A FOR THE II. JOURNAL ARTICLE	19-Apr-24	19-Apr-24	500958	RD180 / Complete Draft Document -- Delivery date for review of draft report
CA/FUNWAVE DEV - CODE DEVELOPMENT AND BETA TESTING OF NEW DEEPWATER WAV	19-Apr-24	19-Apr-24	500958	RD210 / Data Analysis -- Completion of Data Analysis
CA/FUNWAVE GUI - MODEL DATA ANALYSIS OF COASTAL STRUCTURE MATRIX	19-Apr-24	19-Apr-24	500958	RD210 / Data Analysis -- Completion of Data Analysis
CA/GENCADE GUI - TR DRAFT OF MONTE-CARLO	19-Apr-24	19-Apr-24	500958	RD180 / Complete Draft Document -- Delivery date for review of draft report
CA/3D GIS - TASK 1. DEVELOP AND EVALUATE NEW TOOLS TO AUTOMATE THE EXTRACTIC	19-Apr-24	19-Apr-24	500958	RD110 / Alpha Testing
ORISE: 7600A-2022-ERDC-1514 - RESEARCH OPPORTUNITY FOR DEV AND APPL OF GIS TO	30-Sep-24		500958	RD190 / Contract Award -- Date for awarding contract
CA/SANDSNAP DEVELOPMENT - TASK 4: SANDSNAP OUTREACH	19-Apr-24	19-Apr-24	500958	RD130 / Deployment/Training
ORISE: 7600A-2022-ERDC-1514 - THIS RESEARCH OPPORTUNITY WILL WORK ON A PROJEC	30-Sep-24		500958	RD190 / Contract Award -- Date for awarding contract
CA/GUIDANCE ON LIFECYCLE - TR DRAFT OF CALCESIEU ANALYSIS AND MODELING	31-Dec-23	31-Dec-23	500958	RD180 / Complete Draft Document -- Delivery date for review of draft report
IPR	24-Apr-24	24-Apr-24	516508	RD149 / In Process Review (IPR)
FY24 RD WORKPLAN	12-Apr-24	12-Apr-24	516508	RD240 / PMP Development -- Completion and appr
CIRP TECH TRANSFER ACTIVITIES	30-Sep-24		516508	RD149 / In Process Review (IPR)
MULTI MENTOR-MENTEE	30-Sep-24		516508	RD280 / Prototype -- Completion of working prototy
FY24 PMB MILESTONE	29-Mar-24	29-Mar-24	516508	RD240 / PMP Development -- Completion and appr
CNPM-CSAT-PBUD #1 - WEDACONF	26-Jun-24	26-Jun-24	516508	RD130 / Deployment/Training
CNPM-CSAT-PBUD #3 - NCMPCDATAJUPYTERNOTEBOOK	30-Sep-24		516508	RD250 / Product Delivery -- Delivery date to custom
CNPM-CSAT-PBUD #2 - CODEUPDATEDQDM	30-Jun-24	30-Jun-24	516508	RD250 / Product Delivery -- Delivery date to custom
CNPM-CSAT-PBUD #6 - TRAININGWORKSHOP	29-Nov-24		516508	RD310 / Workshop -- Date for completion of works

Updates [Click Here to Submit Comments on the RPM...](#)

Earmark Dashboard

Civil Works Revolutionize Performance Monitoring Program Metric Summary

Division, District

All v

PROMIS Data as of - 20-Aug-24

Data Quality Metrics

CW20 - % Group Codes Assigned

100%

CW21 - % Valid Schedules

100%

CW22 - % PMB Baselined Schedules

100%

CW23 - At Comp Cost vs Fully Funded Est

100%

CW11 - % of Feasibility Milestones On-Schedule

(Blank)

CW12 - % of Implementation Milestones On-Schedule

(Blank)

CW24 - Min Data Req (# Proj by Rating)

(Bla...

(Bla...

(Bla...

2011 Data as of - 16-Aug-24

Financial Metrics

CW01A - YTD % Obligated

100%

CW01B - CFY & CFY+1 Obl Var

1%

CW02A Regulatory - YTD % Expended

(Blank)

Metric under evaluation

(Blank)

CW09 -Unobligated Carryout

Excluded Carryout	Total Carryout	Planned Carryout	Unplanned Carryout
(Bla...	22%	22%	(Bla...

Carryout Data as of - 16-Aug-24

Color Legend

ERDC

Schedules with PMBs: 2 Schedules Requiring PMBs: 2 PROMIS Schedules: 2 Tracked AMSCOs: 1 CFY Available to Obligate: \$3M CFY Obligations Scheduled: \$3M

HQ Tracked Milestone Look-Ahead

PMB MS Category

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INTRODUCING MODERN WORK...

“Deadlines, Suspense, Milestone, Drop Dead, Checkpoints”

“The beatings will continue until morale improves”

What is your Why?
What are the things that matter to us?

HUDSON, FLORIDA



THE COUNTERBALANCE

What we do at ERDC matters.

The people we work with deserve respect.

Care about the language and means by which we connect.

For the IPR, we are looking to build *Trust* and *Honesty* with each other.

THE MACHINERY OF ERDC

The public demands that the engineering by USACE be accountable, transparent, and project funded; not organization funded.

Tactical v. Strategic CW RDTE

The reciprocal relationship between Applied R&D and the field created RARG, SONs, and PDTs.

THE MACHINERY OF ERDC, CONT.

Why solicit proposals?

Our will to make things fair, easier, faster, smarter in proposal process.

The ratchet effect and over-optimization has led to intensive tracking via RPM.

WHAT DOES THIS ALL TRANSLATE TO?

The Dark Side

The long list of activities and milestones we are perpetually behind on, and it always grows. It feels like our work is exposed out of context; everyone may judge our contribution and worth. Staying late on a weeknight to finish a slide deck (!), restart that buggy code 10 times, or get to those two email requests you didn't have time for last week but just remembered.

None of these things feel prudent or necessary.

The Bright Side

We learn incredibly interesting pieces of the puzzle we are working at; we help get colleagues get unstuck; we share joy in milestones and meeting the goals of our research values; we push ourselves to get science written and shared publicly; and our work is applied and useful to others.

BREATHE

WHY IPR

Check in with how we feel during prep, today, and then after the IPR ends.

You are moving forward. You are constantly learning!

You get to work with great people who love this work just like you.

LET'S IPR!