— Maj Dover
State? How
you spoken
w/ Mayor yet?
COL V
4/11

BRIEFING

FOR

COLONEL WILLIAM VOGEL

MOBILE HARBOR WQC RENEWAL

AND

DAUPHIN ISLAND EROSION

7 AUGUST 1995

DRIVING FORCE BEHIND CURRENT INTEREST

- **PUBLIC NOTICE FOR 5 - YEAR WQC -- MAINTENANCE OF MOBILE HARBOR PROJECT**
- **ONGOING EROSION ON DAUPHIN ISLAND**
- **HIGHLY VISIBLE PRESENCE OF DREDGE, GENERALIZATION OF IMPACT OF MOBILE SHIP CHANNEL, AND CURRENT OCEAN DISPOSAL PRACTICES.**

ISSUES

- CONTINUED MAINTENANCE DREDGING OF MOBILE HARBOR
- REQUEST FOR PUBLIC HEARING
- CAUSE OF EROSION OF DAUPHIN ISLAND EAST END -- NATURAL COASTAL PROCESSES VERSUS MOBILE SHIP CHANNEL
- WHO PAYS FOR REMEDY (UNCLE SAM'S DEEP POCKETS)
- PUBLIC NOTICE MAILING LIST

- Mayo Bureau of D-Tech
- Howard Yeager - Owen
- Merc Jones Cardoban Sound
- Dauphin Is CofC.
- Jack Gaines.

PRIMARY ISSUE

"MAJOR CAUSE OF EROSION ON DAUPHIN ISLAND"

- **PUBLIC NOTICE RESPONDENTS POSITION -- MOBILE SHIP CHANNEL AND OCEAN DISPOSAL PRACTICES**

- **MOBILE DISTRICT'S POSITION -- HISTORICAL EROSION OF EAST END OF DAUPHIN ISLAND AND MIGRATION OF SAND ISLAND NORTHWARD THUS NARROWING PELICAN PASSAGE**

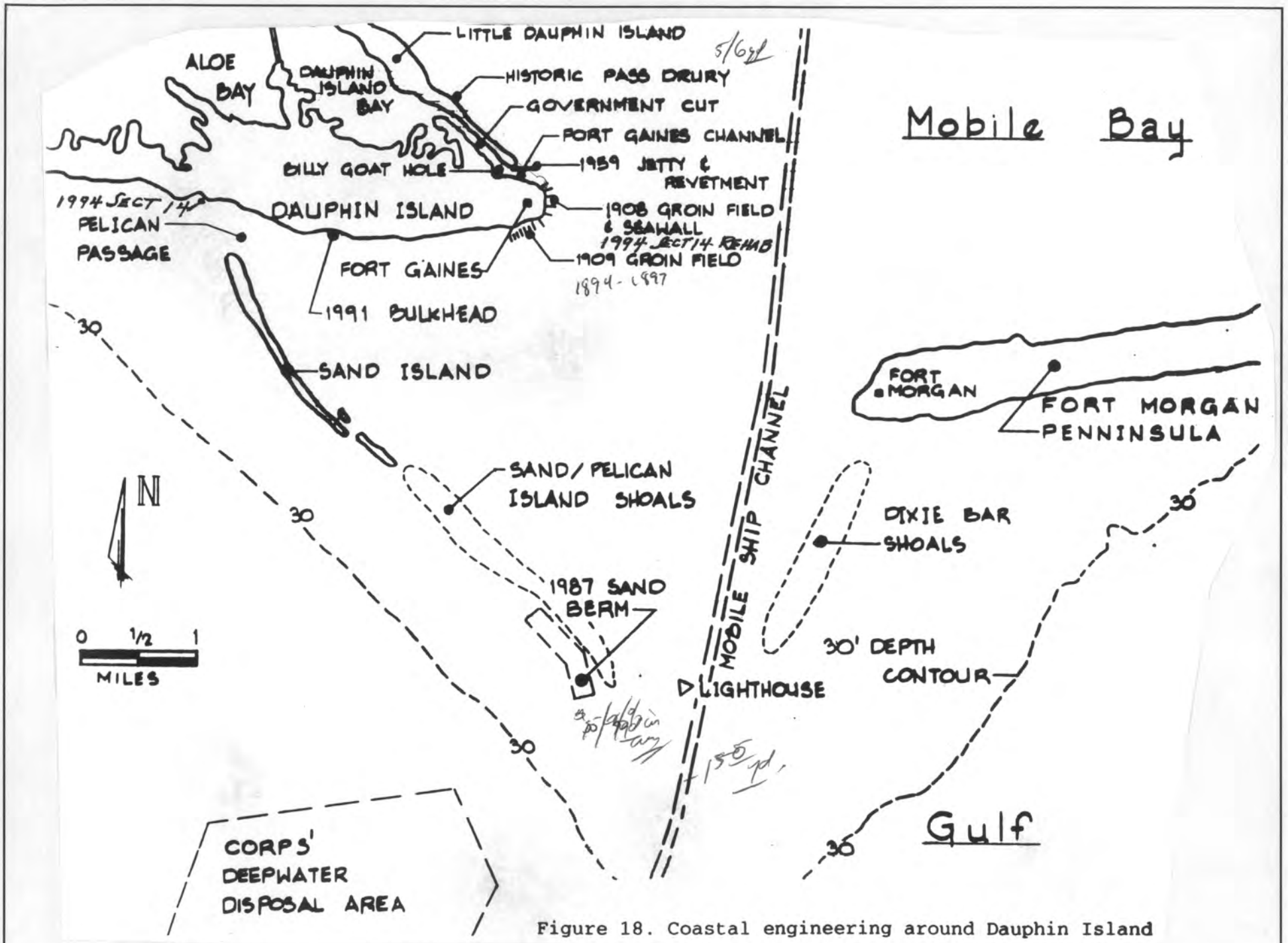

Figure 18. Coastal engineering around Dauphin Island

SUMMARY
HISTORICAL PERSPECTIVE
COASTAL PROCESSES
MANMADE STRUCTURES

THE ISSUE OF BARRIER ISLAND EROSION IS ONE OF EXTREME COMPLEXITY THAT LENDS ITSELF TO FEW GENARALIZATIONS.

AREA IN QUESTION CONSISTS 0F COMPLEX SYSTEM OF BARRIER ISLANDS, MOBILE PASS, EBB TIDAL DELTA (DIXIE BAR AND SAND /PELICAN ISLAND SHOAL COMPLEX.)

HISTORICALLY EAST END HAS BEEN ERODING -- NATURAL TREND FOR ALL NORTHERN GULF ISLANDS

FROM 1894 TO PRESENT MAN HAS TRIED TO ARREST EROSION

ISLAND IS LENGTHENING WESTWARD

LITTORAL DRIFT PREDOMINANTLY FROM EAST TO WEST, HOWEVER, FRESHWATER DISCHARGE MODIFIES

SAND MOVES IN "U" FROM FT. MORGAN PENNINSULA AROUND DIXIE BAR SHOAL ACROSS PASS TO SAND ISLAND SHOALS TO DAUPHN ISLAND

SAND MOVING IN "U" FATE IS BEACHES WEST OF PELICAN PASSAGE -- VERY LITTLE WILL REACH EAST END

SAND DREDGED FROM BOTTOM OF U (APPROX. 300K CY ANNUALLY) PLACED IN OCEAN SITE OUTSIDE OF LITTORAL SYSTEM

THIS IS RELATIVELY SMALL AMOUNT OF SAND WHEN COMPARED WITH AVAILABLE SAND ON SAND/PELICAN ISLAND SHOAL

EAST END CONTINUES TO ERODE AT ESSENTIALLY SAME RATE

PORTION OF MOBILE HARBOR CHANNEL WHERE SAND WOULD MOVE INTO EASTERN LITTORAL ZONE EAST OF SAND ISLAND SHOAL IS NOT DREDGED FREQUENTLY, THUS, IMPACT OF DREDGING ON EAST END EROSION IS INSIGNIFICANT

EROSION IN AREA FRONTING PELICAN PASSAGE HAS ACCELERATED SINCE 1979 DUE TO NORTHWARD MIGARATION OF SAND ISLAND AND PELICAN PASSAGE

FEEDER BERM CONSTRUCTED IN 1987 IN LITTORAL SYSTEM MERGED INTO OFFSHORE SLOPE OF SAND/PELICAN ISLAND

POSSIBLE AUTHORITIES TO ADDRESS EROSION OF DAUPHIN ISLAND

Steps
1. Sec 22 Study
.830 - ADCA.

- o **SECTION 111** - mitigation for completed projects
  - Cost share based on original project 100% Fed.
- o **SECTION 933** - Place Dredged water
- o **SECTION 103**
- o **SECTION 1135**
- o **SECTION 204**
- o **SECTION 22** - Plan Assistance to State - Cost Share w/ State.
  60K study - State pay for 50%
- o **SECTION 216**

***Federal Standard**

OUR RECOMMENDATIONS

- Deny a public hearing Congressman.

- **o DENY PUBLIC HEARING REQUEST**

- **o OFFER PUBLIC WORKSHOP TO**

  - **EDUCATE LOCALS ON CAUSE AND EFFECT POSSIBLY MAY NEED THIRD PARTY REVIEW**
  - **BEGIN TO BUILD PARTNERSHIP FOR BUY IN OF POSSIBLE SOLUTIONS AND EVENTUAL COST SHARING**
  - **OPTIONS TO ADDRESS EROSION PROBLEM**

- **o OFFER STUDY IF AUTHORITY/FUNDING EXISTS**

- **o RESPOND TO OTHER ISSUES IN LETTERS TO PUBLIC NOTICE**

- **o RESPOND TO CONGRESSIONALS**

Congressman Callahan

- **o CONSIDER UTILIZING EXISTING TASK FORCE**