# **Explaining The Navigation Economics Black Box**



LRH PCXIN-RED 31 August 2015



US Army Corps of Engineers
BUILDING STRONG®

Pictures from AEP 2015 (top), Nettles 2015 (bottom left), Norris 2015 (bottom right)





## **OVERVIEW**

- Present a Problem Statement
- Provide Examples to Support the Problem Statement
- Discuss Why Further Investigation of the Problem is Important to USACE
- Present Some Sources of Problem
- Propose Solutions



### PROBLEM STATEMENT

USACE does not effectively communicate to decision makers, stakeholders, and the public the value of U.S. navigation system, how it determines this value, and the uncertainty with value.



# INCOMPLETE COMMUNICATION

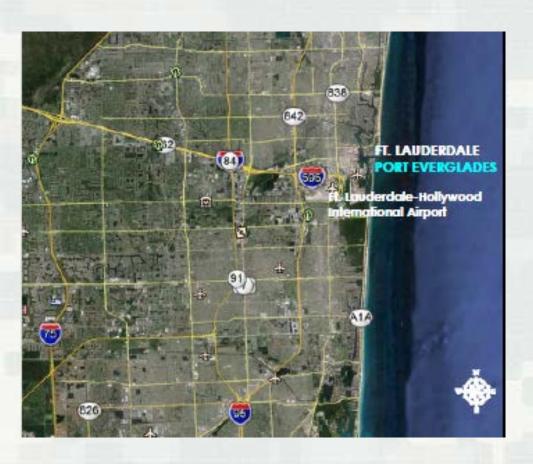


Figure from Port Everglades Civil Work Review Board (27 Feb 2015)

- February 2015 CAWS Advisory Committee
- February 2015 Port
   Everglade CWRB, Major
   General Peabody and Gary
   Waxman (OMB)
- August 2015 IWUB
- August 2015 U.S. Sen.
   Lamar Alexander (Tenn)

# DOES IT MATTER?

Developing a sound infrastructure investment plan requires decision makers to know the

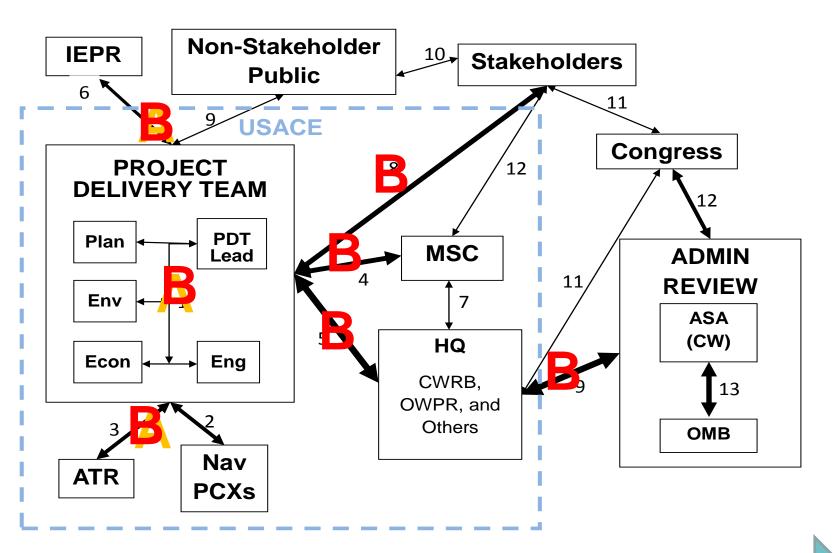


Estimation and communication of the VTN provided by navigation requires efficient and cost effective **Process** 

Figure from Value to Nation home page; Definition of 4 P's is from Hughes, 2015

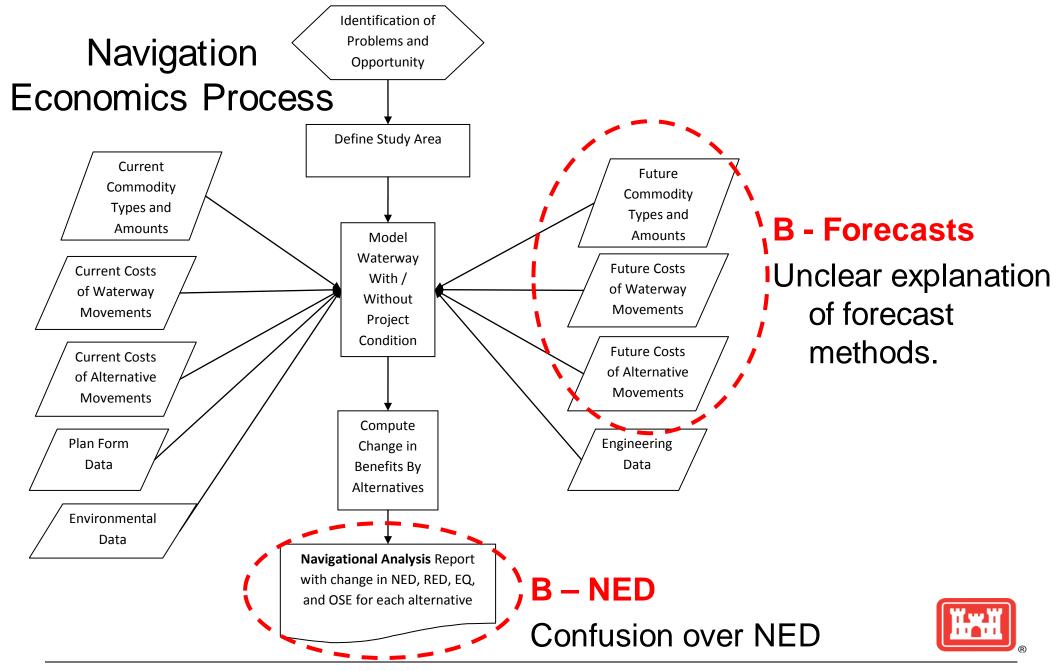


#### SOURCES OF MISUNDERSTANDING



- 1. Ineffective Interaction of PDT (A)
- 2. Jargon (J)
- 3. Incomplete Explanation of Methods (B)





#### PROPOSED SOLUTION

Develop products that improves communication by explaining benefits, uncertainty, and methods for navigation economics to PDT members, decision makers, and stakeholders.





### SPECIFIC SOLUTIONS

- Write a white paper of simplified navigation terms (J), methods (A, B), and the role of risk and uncertainty play in navigation economics (B - Forecasts).\*
- Develop presentations that explain navigation simply (J).
- Re-work the Inland Navigation NED Manual (B - NED confusion).
- PMP template for inland navigation, deep draft, and small boat harbor\*\* (A).
- Establish a library of information (A, J, B).

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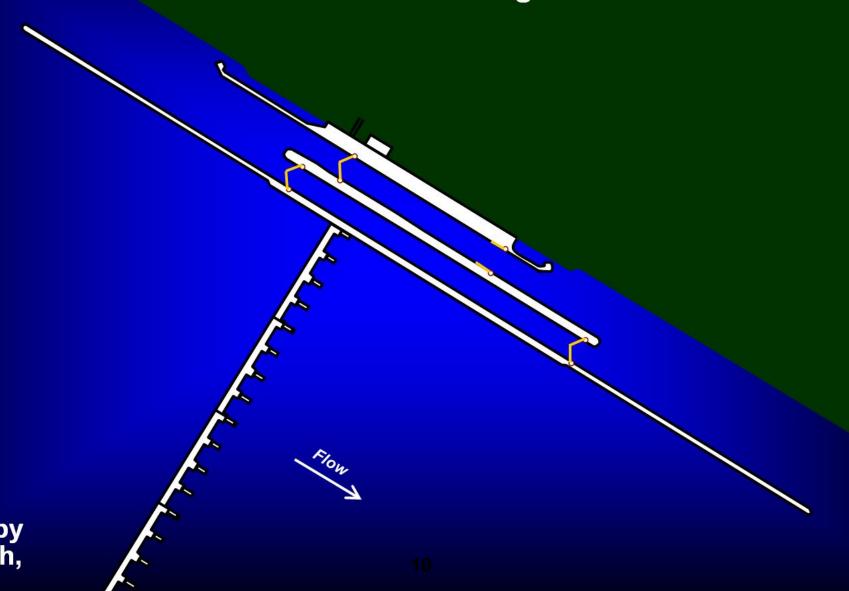


<sup>\*</sup> Inclusion of uncertainty was idea from Brian Harper,

<sup>\*\*</sup> PAB recommendation (March 2015)

#### **EXAMPLE OF PRODUCT**

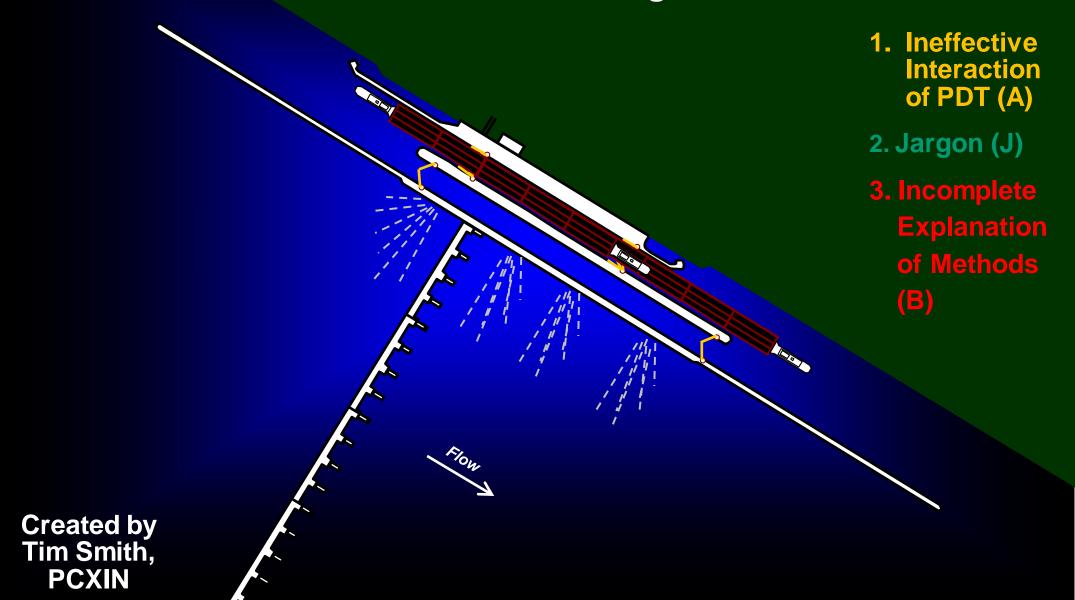
**Two cut – 15 barge tow animation** 



Created by Tim Smith, PCXIN

#### **EXAMPLE OF PRODUCT**

Two cut – 15 barge tow animation



# CONCLUSION AND RECOMMENDATIONS

- USACE can improve the ways it communicates the value it provides, how it determines this value, and the uncertainty regarding its value
- What is the path forward?
  - ► Permissions to work with website owners (PCX) to make modifications to sites.
  - ► Funding (~\$50,000) and time (1 year) to develop the products.
  - ► Assistance (PCXs, IWR, HQ) in ensuring the quality of the products and making sure they are useful.

