



National Transportation Safety Board

Accident Overview Sinking of Cargo Vessel *El Faro*

Brian Young
Investigator-in-Charge

Investigation

CV El Faro
Dive 02
CURV 21
USN SUPSALV





National Transportation Safety Board

Accident Narrative: Sinking of Cargo Vessel *El Faro*

On Scene Team

- Board Member Dinh-Zarr
- Office of Marine Safety
- Office of Research and Engineering
- Office of Highway Safety
- Office of General Counsel
- Office of Chief Information Officer
- Office of Safety Recommendations and Communications
 - Transportation Disaster Assistance Division
 - Government Affairs
 - Media Relations



Investigation Team

- Brian Young – Investigator-in-charge/Engineering
- Eric Stolzenberg – Naval architecture
- Michael Kucharski – Nautical operations
- Carrie Bell – Human factors
- Mike Richards – Meteorology
- Jon Furukawa – Survival factors
- Doug Mansell – Voyage data recorders
- Sean Payne – Voyage data recorders
- Charlotte Cox – Writer/editor

Staff that Supported Team

- Monica Mitchell – Writer/editor
- Andrew Ehlers – Writer/editor
- William Tuccio – Voyage data recorders
- Chris Babcock – Voyage data recorders
- Dennis Crider – Vessel stability
- Xiaohu Liu – Cargo lashing analysis
- Loren Groff – Research and engineering
- Greg Smith – Research and engineering

Staff that Supported Team

- Katherine Chisom – Family assistance
- Stephanie Matonek – Family assistance
- Alice Park – Animation
- Carl Schultheisz – Animation
- Christy Spangler – Vessel graphics
- Ed Kendall – General counsel
- Peter Knudsen – Media relations

Parties to the Investigation

- United States Coast Guard
- TOTE Services
- American Bureau of Shipping
- National Weather Service
- Herbert Engineering
- Palfinger Marine

Investigation

- Interviews
- Document collection / review
- Marine Board of Investigation hearings
- Independent analytical reports



Investigation – *El Yunque*



Safety Issues

- Loss of propulsion
- Flooding in cargo holds
- Downflooding through ventilation closures
- Need for damage control plan
- Lack of suitable survival craft
- Late decision to muster the crew

Safety Issues

- Inadequate company oversight
- Company's safety management system
- Ineffective bridge resource management
- Use of noncurrent weather information
- Captain's actions

Other Issues

- Alternate Compliance Program
- Voyage data recorders
- Expanded use of automatic identification system

Presentations - Morning

Engineering factors

Brian Young

Flooding of cargo holds

Eric Stolzenberg

Damage control and stability information

Michael Kucharski

Survival factors

Jon Furukawa

Presentations - Afternoon

Electronic data

Sean Payne

Onboard weather information and
weather reporting from vessels

Mike Richards

Human performance factors

Carrie Bell

Captain's decision-making and actions

Michael Kucharski