

# Aids to Navigation – Effective Communication

PRESENTED BY: ASHLEY TASKER  
FOR: 20<sup>TH</sup> INTERMODAL AFRICA  
DATE: NOVEMBER 2018  
LOCATION: ACCRA

# Aids to Navigation - Communication

## TIDELAND SIGNAL – IN THE BUSINESS OF

- Helping to prevent Vessels from crashing into each other, Port Structures and avoiding dangerous areas leading to loss or damaged Vessel/Cargo whilst approaching/entering Port.

## HOW?

- Providing products known as AtoNs (Aids to Navigation Systems) which effectively communicate with the approaching Vessel:
  - Visually
  - Electronically
  - Audibly

# Aids to Navigation – Effective Communication

This is an “alleged” transcript of a radio conversation of a US naval ship with Canadian Coastguard authorities in heavy fog off the coast of Newfoundland in October, 1995. Radio conversation released by the Chief of Naval Operations 10-10-95. (Contested)

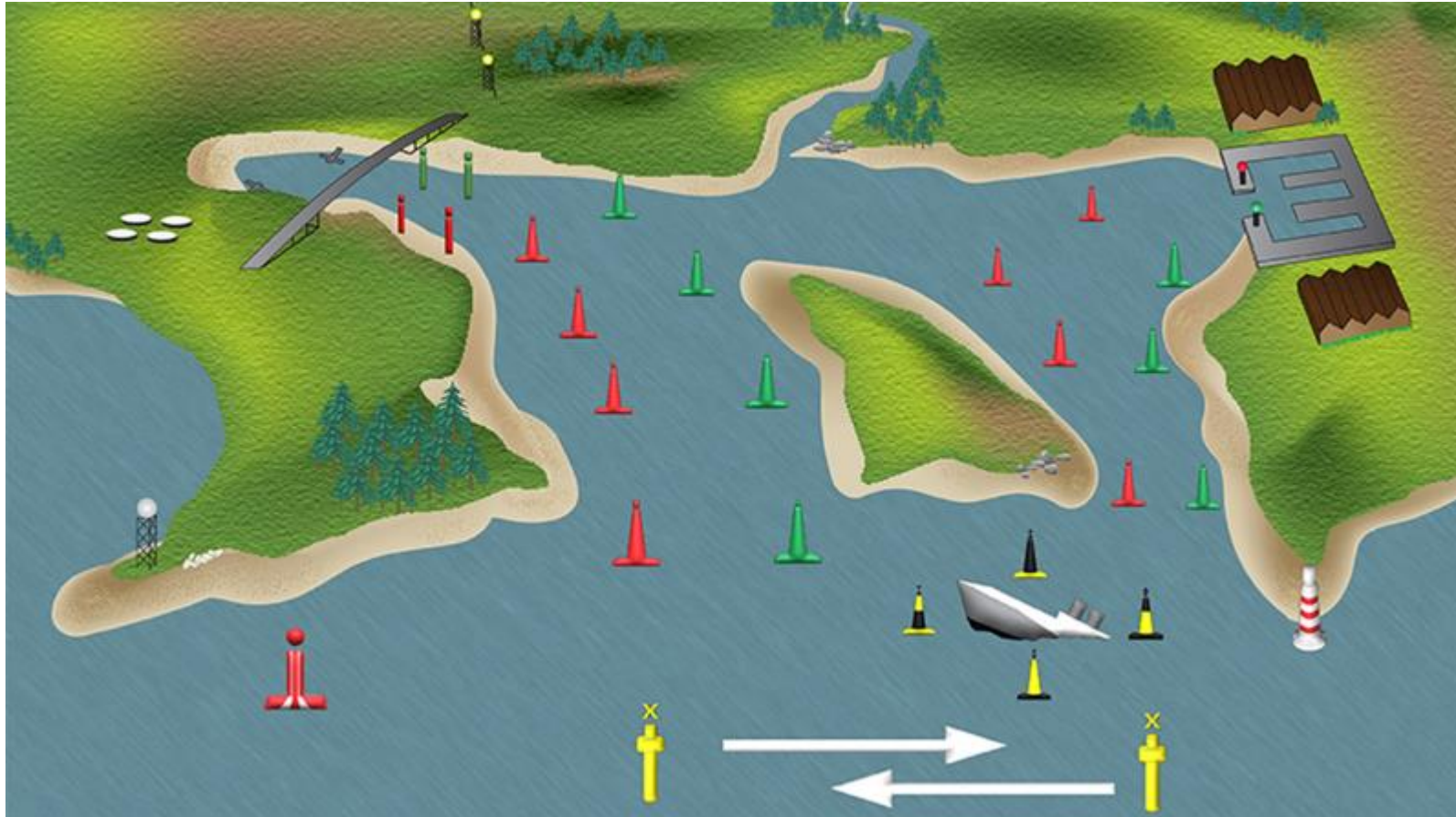
- Americans: Please divert your course 15 degrees to the North to avoid a collision.
- Canadians: Recommend you divert YOUR course 15 degrees to the South to avoid a collision.
- Americans: This is the Captain of a US Navy ship. I say again, divert YOUR course.
- Canadians: No. I say again, you divert YOUR course.
- Americans: This is the aircraft carrier USS Lincoln, the second largest ship in the United States' Atlantic fleet. We are accompanied by three destroyers, three cruisers and numerous support vessels. I demand that YOU change your course 15 degrees north, that's one five degrees north, or countermeasures will be undertaken to ensure the safety of this ship.
- Canadians: I am Seaman First Class and I am accompanied by my dog, food, two beers, and a Canary that's currently asleep and:
  
- THIS IS A LIGHTHOUSE, SO YOUR CALL!

# Aids to Navigation - “Poor Communication”



# Aids to Navigation - Communication

## IALA Buoyage System “Road Signs for the Sea”



# Aids to Navigation - Communication

## Fairway Buoy – Approaching Port

I'm a Fairway or Safe Water Buoy. I'll be the first buoy you see as you head towards Port & It's safe water all around me. You'll pick up the Channel Marks soon.

I also have a light but quite often a RACON so you can electronically ID me



# Aids to Navigation - Communication

Cardinal Mark N,S, E, W.

I'm a Cardinal Mark  
in this case North & if  
you come across me  
be sure to sail to the  
North of me to stay in  
safe water



# Aids to Navigation - Communication

## Special or Zonal Mark

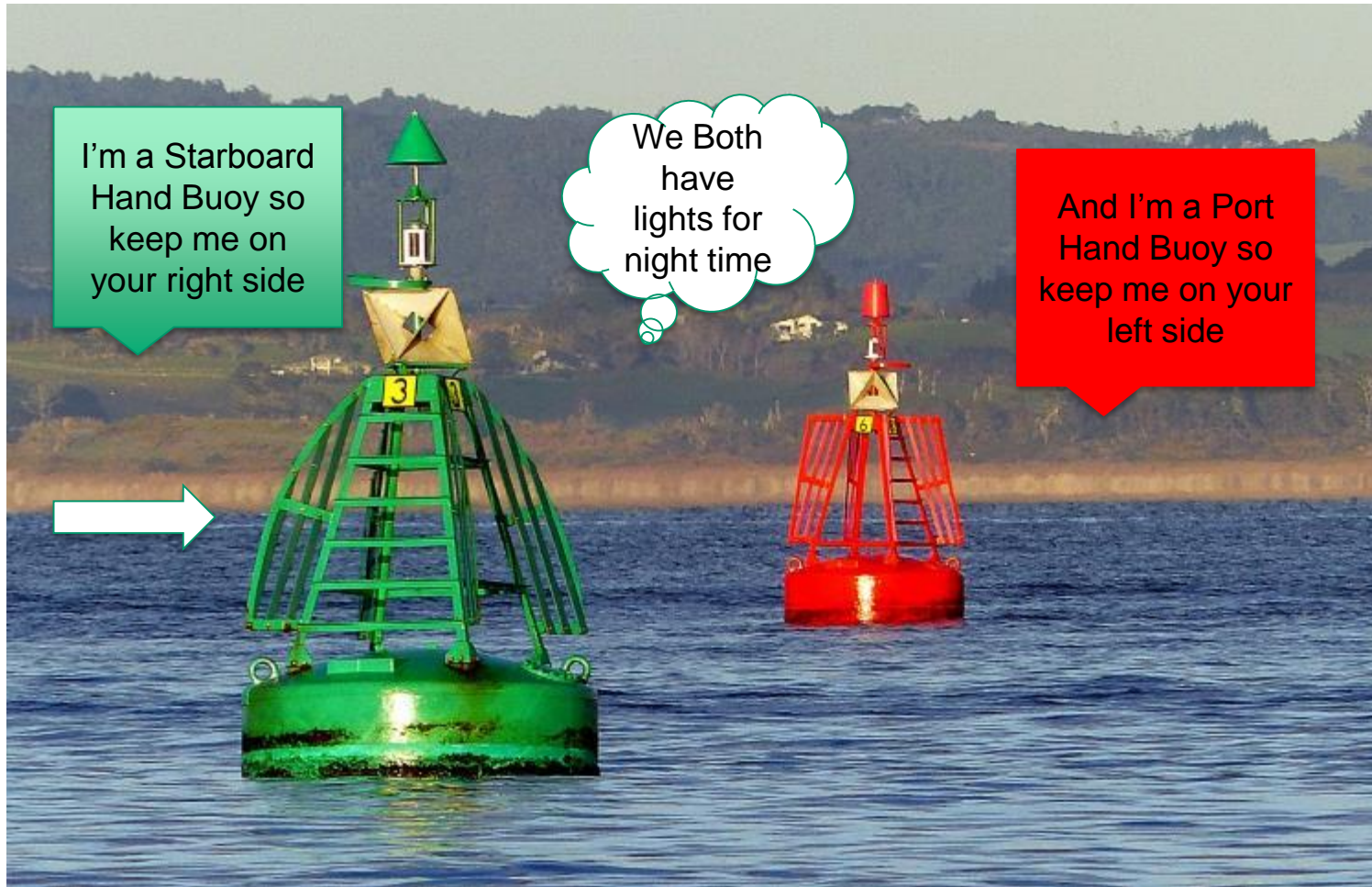
I'm a Special Mark & if you come across me avoid the area I may be highlighting for instance the end of an outfall pipe





# Aids to Navigation - Communication

## Lateral or Channel Marks – Region 'A' Entering Port



# Aids to Navigation - Communication

## Isolated Danger Mark

I'm an Isolated Danger Mark & if you come across me I am sitting directly above a hazard such as a sunken wreck or dangerous rock outcrop.



# Aids to Navigation - Communication

## Leading Lights – Approaching Port in the Marked Channel

We're a pair of Leading Lights, placed on the Land, Line us up and we'll help keep you in the safe, center of the Channel as marked by the Channel Marks as you approach towards Berth



# Aids to Navigation - Communication

Tideland Signal was founded in 1954 and provides navigational aids to Lighthouse Authorities, Ports and Harbours, Coast Guards and Oil and Gas companies for the marking of offshore platforms.

Headquartered in Houston, Texas, Tideland Signal originally supplied navigation aids into the oil and gas industry in the Gulf of Mexico, before developing products specifically for Ports and Harbours.

In 1968 Tideland Signal Ltd was formed in the UK to act as a sales and service facility for the rapidly expanding North Sea oil fields. As the Tideland range expanded into equipment for Ports and Harbours TSL was given the responsibility for sales into UK, Europe, the Middle East, Central Asia and Africa.

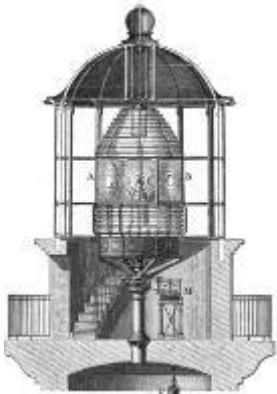
Purchased by Xylem in 2015, Tideland are now part of an International company represented Globally with > \$4.6bn in revenue, more than 16,000 employees worldwide & doing business in more than 150 countries



# Aids to Navigation - Communication

## A Rich History of Innovation

For over 60 years Tideland's proven team of scientists and engineers have designed and developed innovative AtoN systems that have set the standard for quality and reliability in the industry. TSC's research and development accomplishments include:



- World's first transistorized, automatic lamp changer **1965**
- **World's most efficient 300mm lantern** **1967**
- Developed RACON for USCG **1990**
- First windows based AtoN satellite monitoring system **1991**
- The first solar powered rotating beacon of 24NM range **1995**
- **First Lloyd's approved rotationally moulded polyethylene buoy** **1999**
- One of the first AtoN companies to introduce LED technology **1995**
- Production of the world's lowest power Racon, the System 6 **2002**
- **First private light range tunnel, built to IALA specifications** **2003**
- First twin hull polyethylene buoy **2003**
- First company to prove e-Navigation concept in EU trial **2007**
- First company to install multiple AIS AtoN in a port (Paranagua) **2010**
- **First to use combined AIS AtoN and RACON (patent pending)** **2014**



*Tideland Signal delivers world leading aids to navigation solutions, products, services and customer care, with innovation, safety and compliance at the core of our mission.*

# Aids to Navigation - Communication



OFFSHORE PLATFORMS



OFFSHORE WIND FARMS



PORTS, HARBOURS, INLAND WATERWAYS & BRIDGES



SERVICE, INSTALLATION AND MAINTENANCE



ELECTRONIC NAVIGATION, AIS & MONITORING



SOLAR POWER SYSTEMS

# Aids to Navigation - Communication

- World leader in Aids to Navigation
  - Over 1000 port and coastal AtoN systems delivered worldwide
  - Over 60 years in business starting as supplier to offshore oil industry
  - Members of IALA, IAPH, UKHMA, RTCM, IEC, and NAM
- Products include:
  - Lighted Beacons and Floating Aids
  - Radio Aids and AIS AtoN
  - Audible Aids
  - Power Sources
  - Support Structures
  - Remote Monitor & Control
- Services
  - Installation
  - Maintenance
  - Consultancy



# Aids to Navigation - Communication

**Global Presence** – Tideland Signal are a truly global company with support available around the World. The experiences gained in one territory is utilised to better service in all of the countries around the World meaning our customers truly get the best possible products and services.

**World Leader** – Tideland Signal are the world leader in the manufacture and supply of Marine Aids to Navigation. We have been in this business longer than most of our competitors and we ensure all of our customers benefit from our experience.

**Tideland Know How** - Tideland don't just sell products we sell systems that are designed to work in the areas where they are deployed.





Thank you for your time