



Welcome to the Galveston Ferry Operation

**Presented by
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The purpose of this presentation is to inform the audience of a brief history of the ferry operation, current operational challenges and a general description of our vessel's propulsion system.



The Galveston / Bolivar Ferry History

- The Galveston Bolivar ferry operation has undergone an evolution of organizational management changes
- In 1929 the first regularly scheduled ferry service between Port Bolivar and Galveston Island was established by a privately owned company. Six daily round trips were made and only daylight service was provided
- At the end of 1929 the company sold its two ferries the Galveston and the Jefferson to Galveston County
- Six Months later the County sold the ferries to the State of Texas in April, 1930
- The first ferry operated by the State of Texas left Port Bolivar on July 1, 1934
- Operated for six months toll-free until the County officials asked the state to impose a 25 cent charge to reduce traffic congestion



- In 1949 the state operated the ferries as a toll-free service and continues to present
- In 1950, two new vessels were built, the [R. S. Sterling](#) and the [Cone Johnson](#)
- In 1959 the [E. H. Thorton Jr.](#) was built
- These three vessels utilized the diesel-electric 1380 horsepower propulsion system
- Originally 185 feet long and 55 feet wide
- In 1977 all three vessels were lengthened to 245 feet and widened to 66 feet with an increased vehicle capacity to 70



Vessel Overview

- Fleet consists of five double ended boats 265 feet long and 66 feet wide
- 70 vehicle capacity
- 6 eighteen wheel trucks weighing up to 80,000 lbs.each
- 500 Passengers
- Six crewmembers (Captain, Engineer, Oiler, 2 - AB's, and 1 - OS)
- Propulsion system:
 - Voith-Schneider propulsion system on four boats
 - Traditional propulsion and steering on the [Gibb Gilchrist](#)
- All of the boats are named after former Texas Transportation Commission members except the [Gibb Gilchrist](#). Mr. Gilchrist was a State Highway Engineer twice during his career with the department



Galveston Ferry Fleet



Robert C. Lanier
1991



Dewitt C. Greer
1995



Gibb Gilchrist
1977



Ray Stoker Jr.
1997



Robert H. Dedman
1999

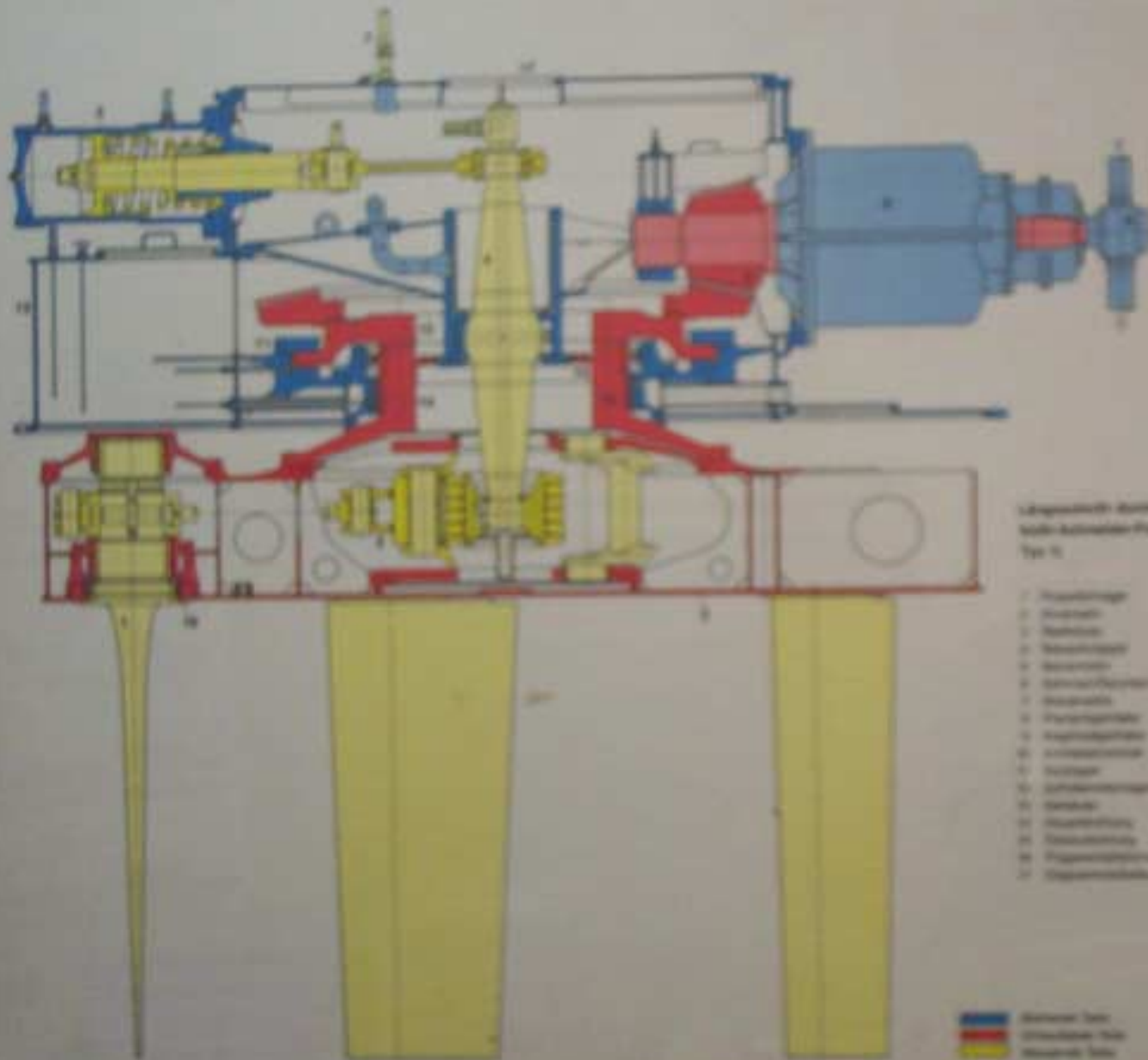


Operating Principles of Voith-Scheider Propeller

The prime mover is connected to the propeller by a hydraulic coupling and shafting to the input reduction gear, which is integral with the propeller unit. The reduction gear drives a ring gear and pinion which turns a rotor with five blades attached. The bottom of the rotor unit is flush with the bottom of the vessel hull with the five blades projecting downward from the rotor. This system allows the Captain the ability to maneuver the vessel within any 360° direction.

Advantages

- Damage to the landing cluster system and the vessels greatly reduced due to this better maneuverability**
- This new propulsion system was a major upgrade from the Diesel electric propulsion system**



Longitudinal section of a Voith-Buchsenpumpe Type 1

- 1 Gehäuse
- 2 Pleuell
- 3 Pleuellstange
- 4 Pleuellstangebolzen
- 5 Pleuellstangebolzenmutter
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- 17 Pleuellstangebolzenmutter

Longitudinal section of a Voith-Buchsenpumpe Type 2

- 1 Gehäuse
- 2 Pleuell
- 3 Pleuellstange
- 4 Pleuellstangebolzen
- 5 Pleuellstangebolzenmutter
- 6 Pleuellstangebolzenmutter
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Coupe de longueur d'une Voith-Buchsenpumpe Type 3

- 1 Pleuell
- 2 Pleuellstange
- 3 Pleuellstangebolzen
- 4 Pleuellstangebolzenmutter
- 5 Pleuellstangebolzenmutter
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- 16 Pleuellstangebolzenmutter
- 17 Pleuellstangebolzenmutter

■ Gehäuse	■ Gehäuse	■ Gehäuse
■ Pleuell	■ Pleuell	■ Pleuell
■ Pleuellstange	■ Pleuellstange	■ Pleuellstange



The Galveston / Bolivar Ferry Operation

- **Toll free operation**
- **Peak months of operation June, July, and August**
- **More than six million people use the Galveston Ferry system**
- **Passenger one day record of 43,472 on July 3, 1994**
- **Vehicle one day record of 12,733 on July 4, 1993**
- **2.7 mile trip averages about 15 minutes**
- **The ferries cross one of the busiest marine intersections in the world, including the Houston Ship channel and ICW. Approximately 7000 ships visit the Port of Houston each year**



Challenging Issues

- **Peak traffic periods utilizing maximum vessel capacity with four landings**
- **Expanding operations for summer traffic**
- **Operating 24 hours a day 7 days a week 365 days per year**
- **Crew staffing with a competitive commercial market
129 full time employees including 15 Captains and 15 Engineers**
- **The ferry service is critical to the residents of Bolivar Peninsula when a hurricane threatens. The ferries are the primary means of evacuation through Galveston to the causeway and the mainland. The ferries will continue to cross the channel until high winds and tides make their mission unsafe. The boats are then secured in their moorings at the Galveston landing facility**
- **Scheduling shipyard maintenance with a reduced maintenance period while traffic demand increases**

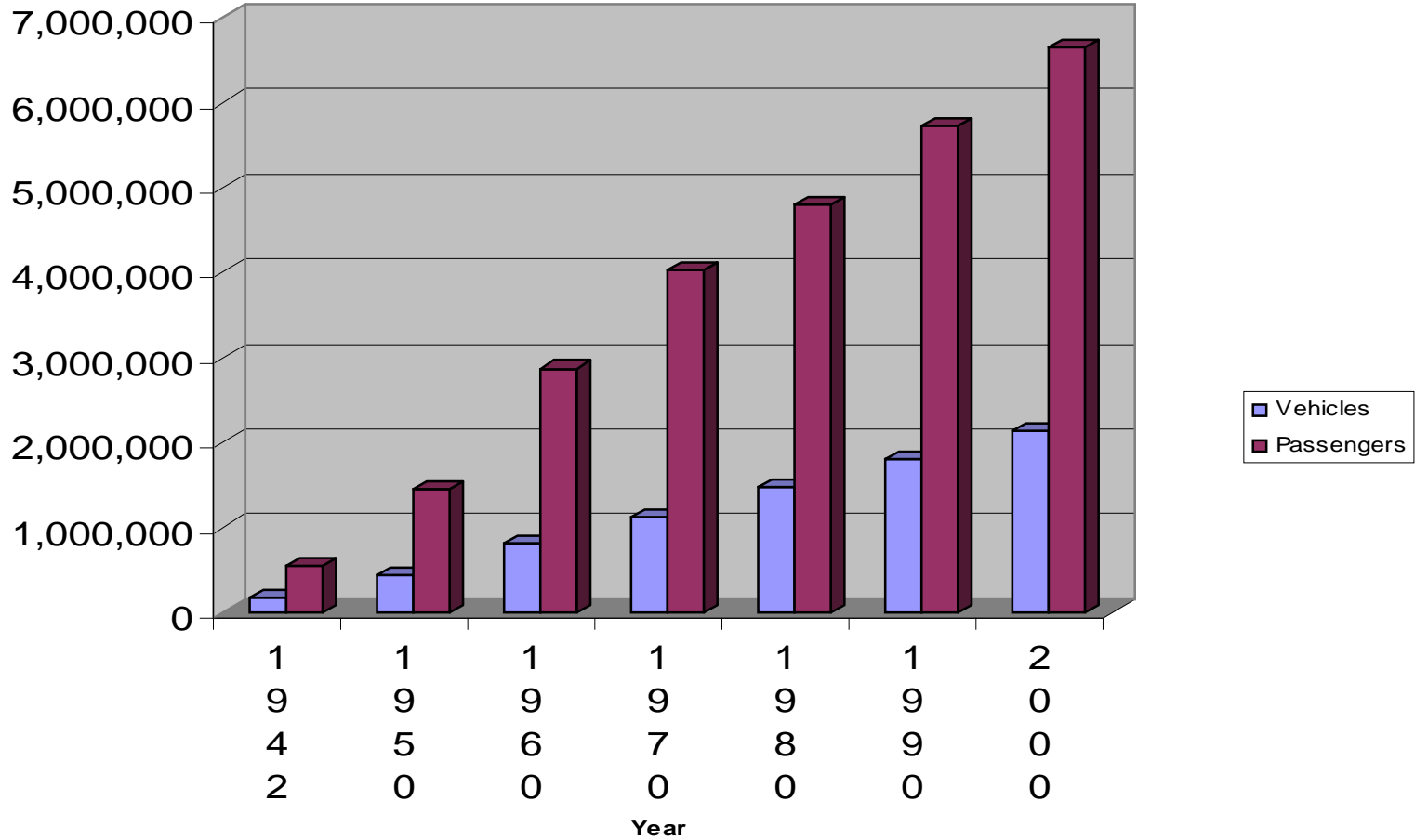


Sample of Traffic History

Year	Vehicles	Passengers
1942	171,026	553,302
1950	444,647	1,450,207
1960	807,298	2,873,104
1970	1,128,394	4,030,904
1980	1,470,206	4,800,856
1990	1,808,125	5,720,846
2000	2,138,715	6,643,669



Ferry Traffic History Sample



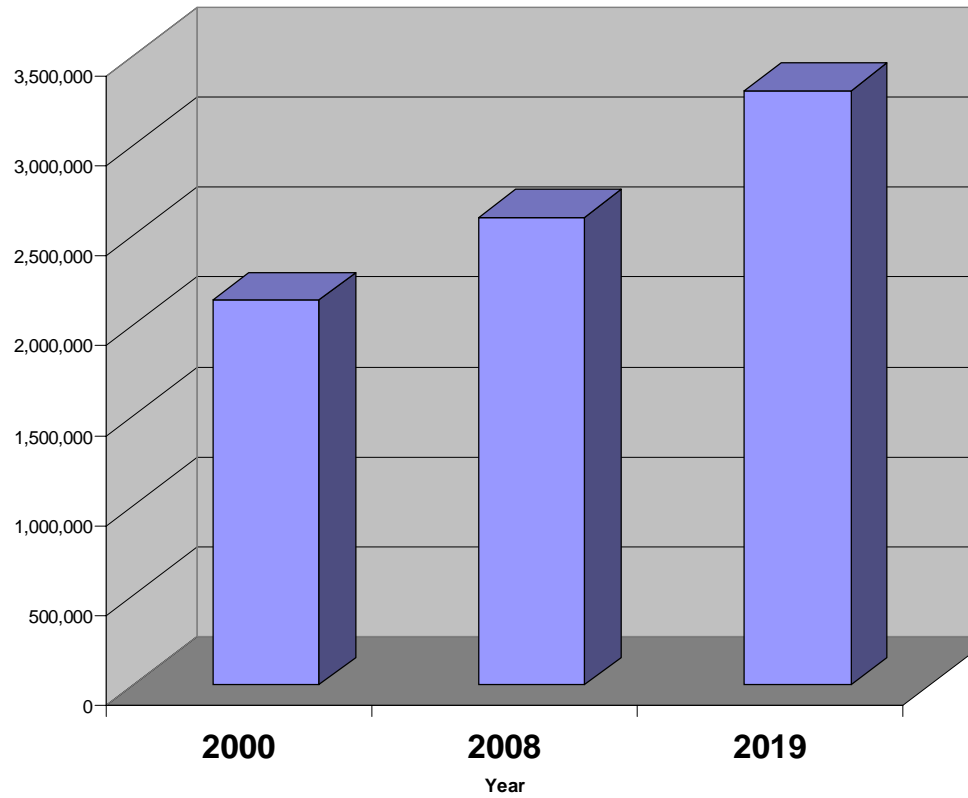


Projected Traffic Based on 2000 Feasibility Study

Year	Vehicles
2000	2,138,715
2008	2,602,000
2019	3,306,000



Projected Traffic





Mission Statement And Values

Our operation places its primary emphasis on safety with customer service being a close second.

- **Safety First**
- **Customer Service**
- **Professional Public Relation**
- **Integrity**
- **Teamwork**