



**Massachusetts Bay
Transportation Authority**

Ferry Service Update

Fiscal and Management Control Board

December 16, 2019

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Ferry Service at a Glance



Three Routes

3 - Contracts

Term 4 years-7 Months - (11/1/2018 - 6/30/2023)

- Hingham F1 = \$39,225,126
- Hingham - Hull - Logan F2H = \$17,641,664
- Charlestown F4 = \$9,286,622

Route Miles 38

37 Commuter Ferry*

1 Inner Harbor Ferry

* Commuter Ferry calculated as mileage one-way from Boston-Hingham, Hingham-Hull, Hull-Logan, and Logan-Boston

Weekday One-Way Trips 154

76 Commuter Ferry

78 Inner Harbor Ferry

Terminals 7

Parking Spaces 1,790

Weekday Boardings 5,070

Annual Ridership 1.25 million

MBTA-owned Vessels 4

Non-MBTA owned Vessels 9

Operated by Boston Harbor Cruises (BHC)



Ferry Routes

All MBTA ferry service operates within Boston Harbor

F1: Hingham-Rowes

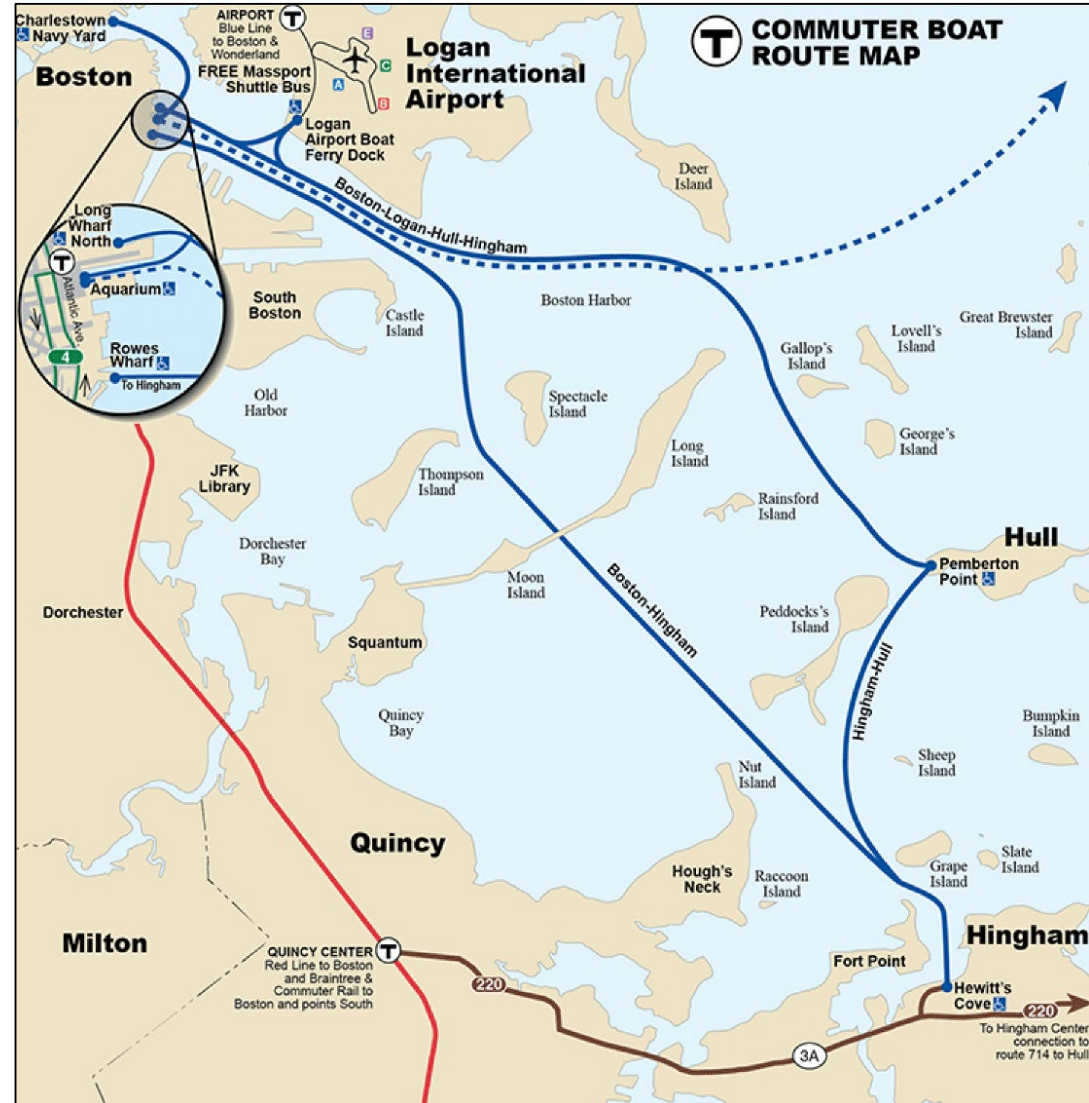
Revenue Miles: 96,408 Hours: 7,641

F2H: Hingham-Hull-Logan

Revenue Miles: 112,326 Hours: 9,698

F4: Charlestown-Long Wharf

Revenue Miles: 28,594 Hours: 5,874



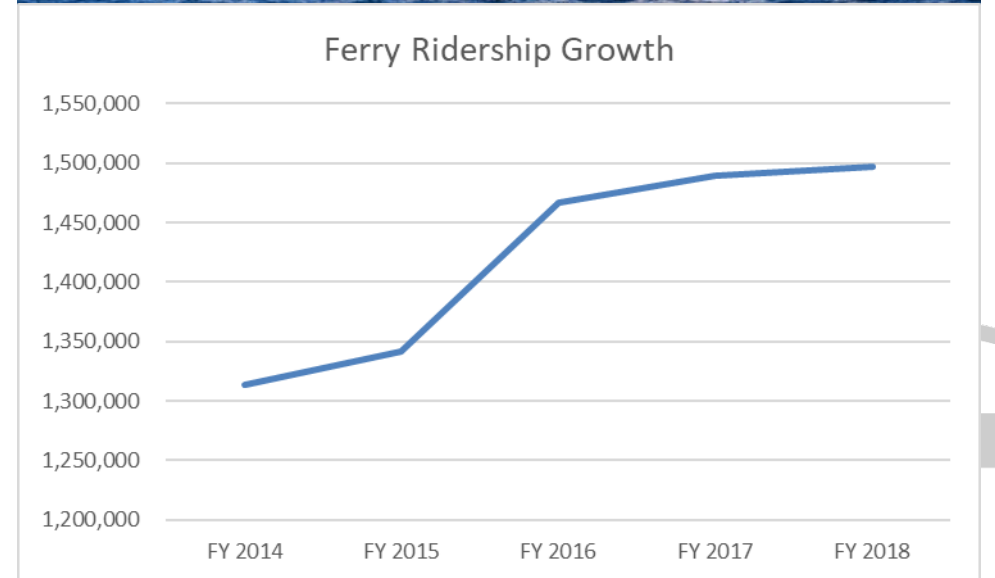
On-Time Performance

OTP is typically excellent, except during the most extreme weather conditions and dredging activities.

Service	July	Aug	Sep	Oct	Nov
F1: Hingham	93%	94%	97%	97%	97%
F2H: Hingham/Hull	94%	95%	98%	96%	98%
F4: Charlestown	100%	100%	100%	100%	100%

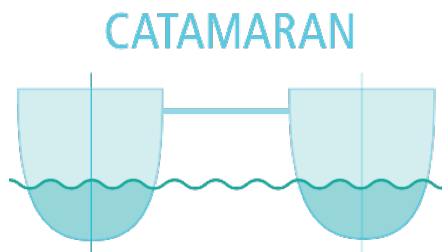
Primary factors impacting OTP:

- LNG tanker activity
- Pleasure boats
- Mechanical failures
- Ice and other weather



MBTA Owned Vessels

F2H: Hingham/Hull – Logan – Long Wharf



	Ownership	Capacity	Date built
Flying Cloud	MBTA	149	1996
Lightning	MBTA	149	1996
Glory	MBTA	149	2018
Champion	MBTA	149	2017



Ferry Boat Overhauls: Status

Overhaul Program Schedule	Date
Draft Ferry Overhaul Specifications	Underway
Final Overhaul scope and Specification	March 2020
Ferry Boat #1 enters Overhaul Program	June 2020
Ferry Boat #1 completes and #2 enters Overhaul Program	June 2021
Ferry Boat #2 completes Overhaul Program	June 2022



Overhaul of Lighting and Flying Cloud

- Hull soundings and moisture readings – Lightning
- Preliminary condition assessment – Lightning
- Draft recommendations for overhaul scope in progress
- Preliminary development of overhaul specification
- Review maintenance records
- Obtain supplemental information from Flying Cloud
- Obtain consensus on overhaul scope
- Continue development of draft specification

Overhaul Specification

- Meeting held to discuss initial recommendations
- Draft being developed, sections identified.
- Specification sections being assigned
- Major systems to be replaced vs. overhauled identified.

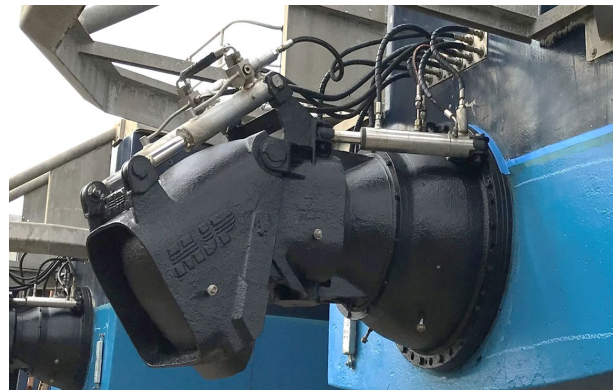
Stakeholder Coordination

- Stakeholders identified and Meetings underway



Ferry Boat Overhauls: Existing Conditions Assessment

- **Preliminary Hull Assessment**
 - Hull soundings moisture readings performed
 - Additional non-destructive (Infrared) testing recommended and being scheduled
- **Main, Engines, Shafts and Jets**
 - EPA Tier II or better engines
 - Fuel tanks should be replaced
- **Electrical, Safety and Passenger Amenities**
 - Assess capacity of electrical system
 - Add Inflatable Buoyant Apparatus (IBAs)



Ferry Boat Overhauls: Improvements

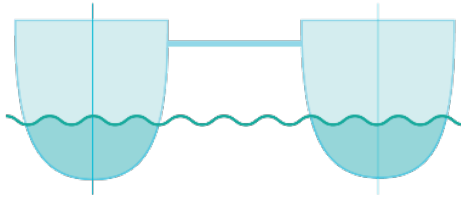
- Expansion of enclosed upper deck passenger
- Update each of the navigation systems
- Reconfigure pilothouse and controls
- Update the commissary area
- ADA compliant heads
- Internal environmental control systems
- Investigate adding passenger capacity



Non-MBTA Vessels

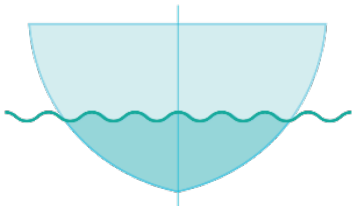
F1: Hingham – Rowes Wharf

CATAMARAN



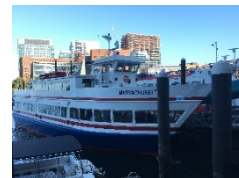
	Ownership	Capacity	Date built
Asteria	BHC	400	1998
Aurora	BHC	400	1999
Salacia (BACKUP)	BHC	600	2000

MONOHULL



	Ownership	Capacity	Date built
Massachusetts	BHC*	347	1988
Ruth E. Hughes	BHC	347	1990
Regency	BHC	347	1992

* by subcontract



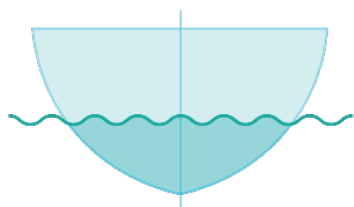
Boats for the F1 service are owned by BHC and are periodically reassigned to whale watches, lighthouse tours, and other activities



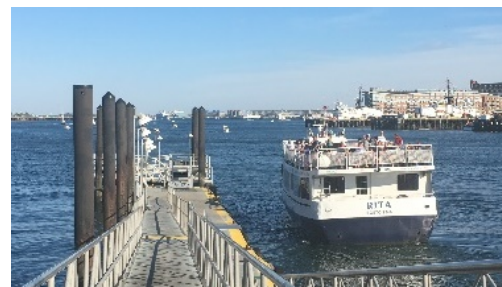
Non-MBTA Vessels

F4: Charlestown – Long Wharf

MONOHULL



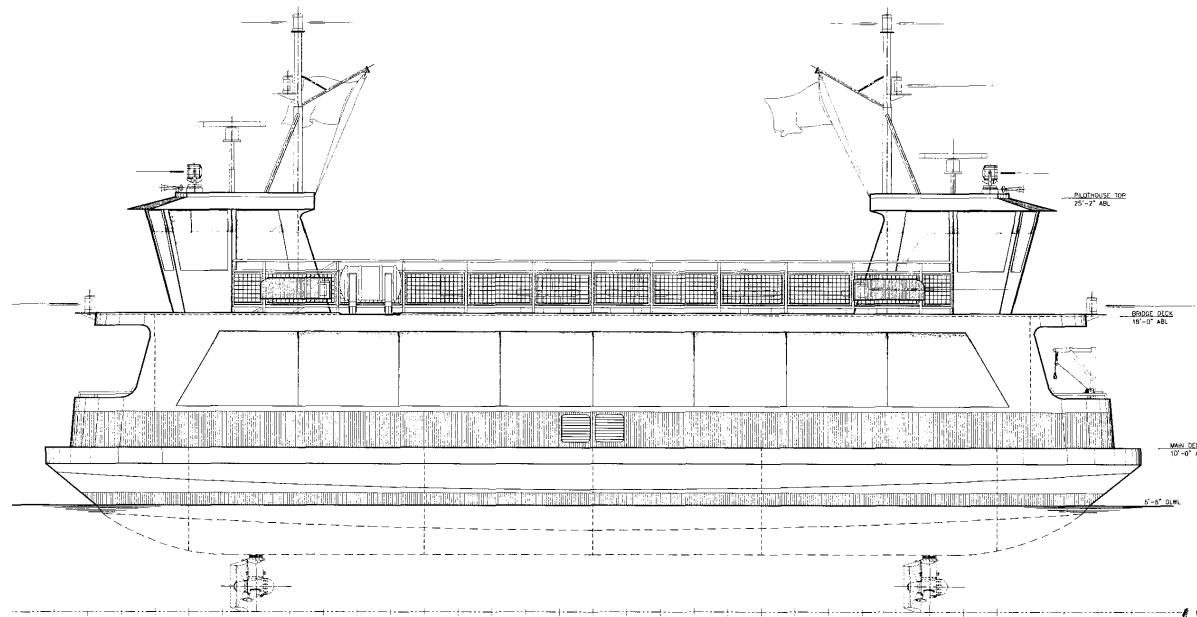
	Ownership	Capacity	Date built
Rookie	BHC	149	1979
Rita	BHC	149	1982
Anna-Claire (BACKUP)	BHC	149	1982



Replacement of Charlestown Boats

Current Ferry Contract contains a New Vessel Option:

- Expedited procurement
 - No decision has been made, but the opportunity exists to move quickly should the MBTA choose to exercise the option available
- Unique Operating Profile
- Hybrid possibility for Battery/ Generator propulsion
 - 2 Crew and 150 Passengers
 - Diesel-electric azimuthing propulsors (2x)
 - 750 gal fuel capacity
 - Length: 65 ft. Beam: 22 ft.
 - Depth: 6.5 ft. Draft: 3 ft.
 - 200+ horsepower generator
 - Battery bank
- BHC-managed procurement
 - BHC employs 40 full-time engineers, mechanics, welders, plumbers, and electronics and fabrication specialists



Additional Considerations

Addressing service at capacity

- MBTA will look at options to address demand that is in excess of capacity on current service
- Further investments (infrastructure and/or boats) will be needed for enhanced service

Governance

- MBTA will participate in Water Transportation Advisory Council process on governance and operating models

Service at capacity in 2019

Trips Origin Departure Time	Instances 6/1 - 10/31	PAX Left behind (Average)
Hingham 7:45AM	52	10 - 30
Long Wharf 5:30PM	26	5 - 15
Rowes/Long 3:25PM - 5:20PM	12	5 - 40 (75 peak)