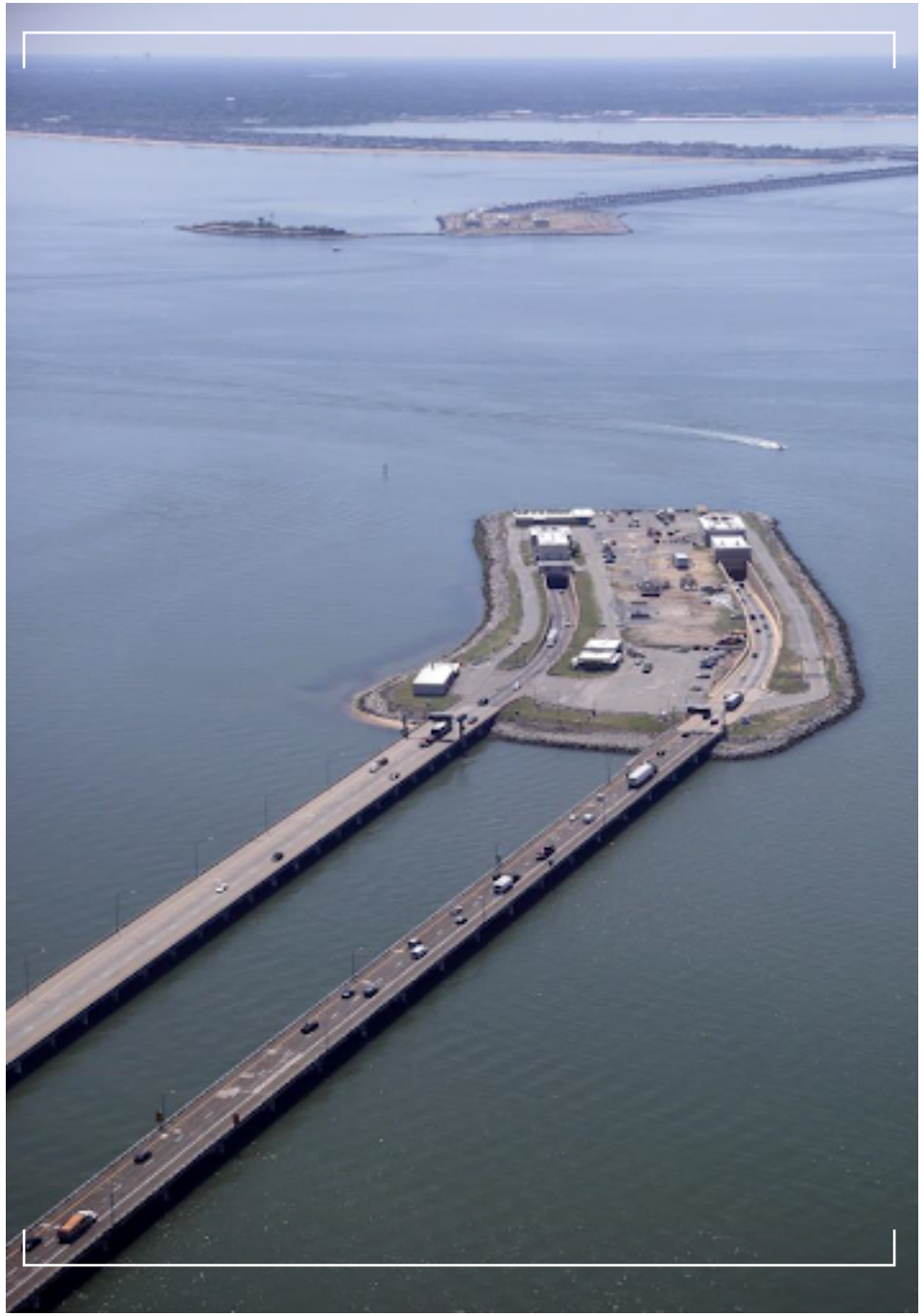
Chesapeake Bay Bridge-tunnel

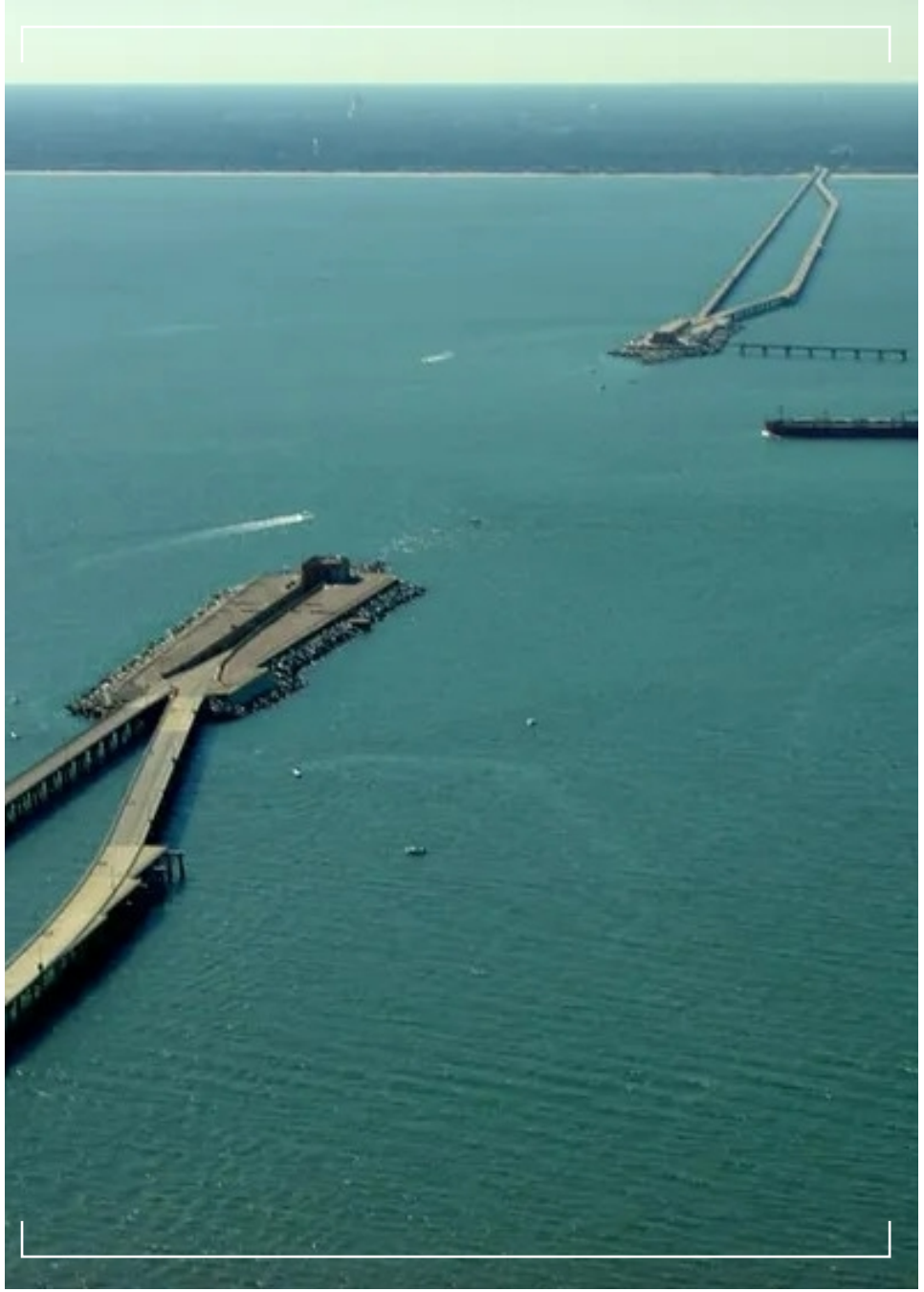
One of the Seven Engineering Wonders of the Modern World



What is a Bridge-Tunnel?

- Goes over the water as bridge
- Goes under the water as tunnel

<<Hampton roads bt



Purpose of Bridge-Tunnels

- Allows vehicle traffic to cross bodies of water
- Does not hinder ship traffic

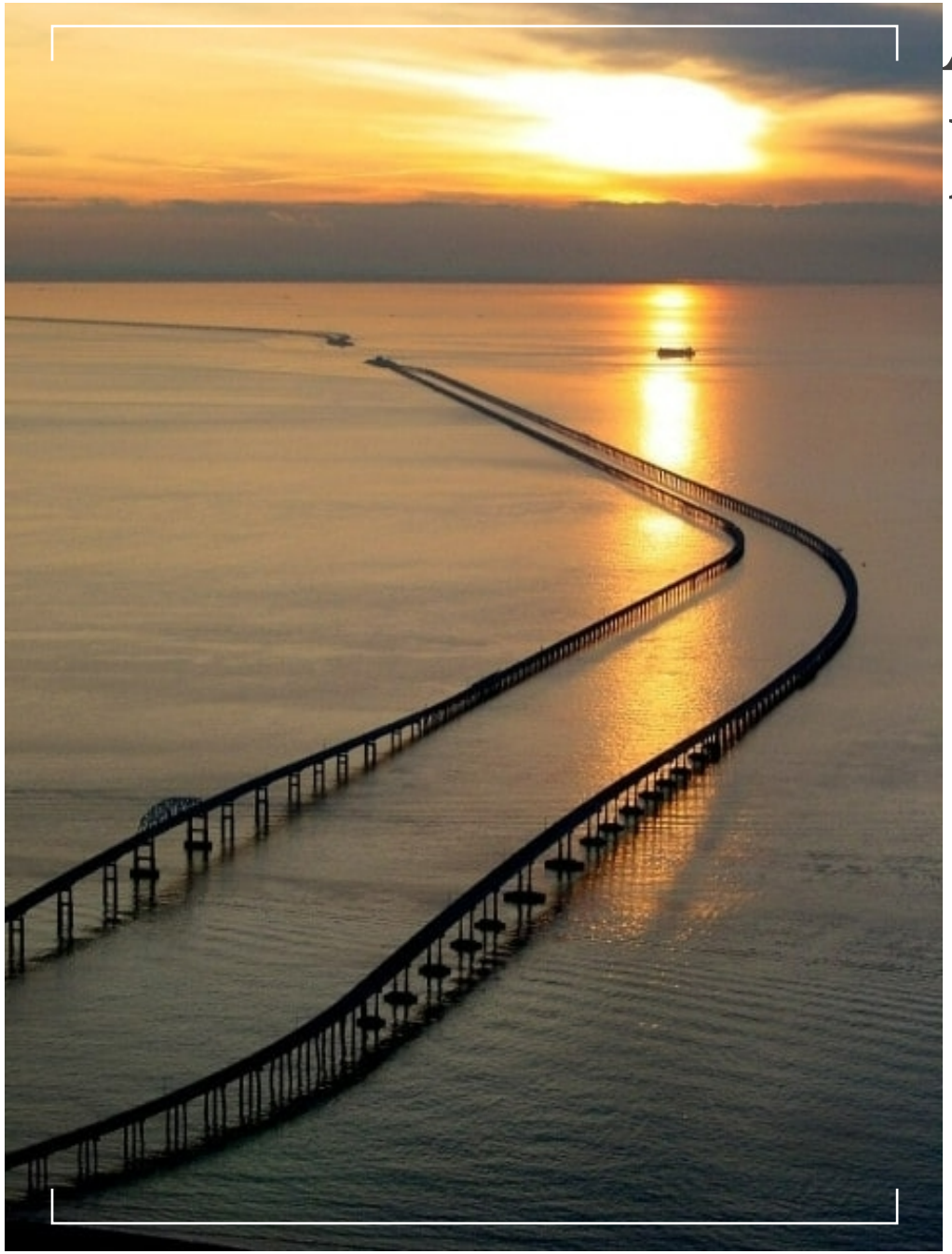
<<CBBT

How Bridge-Tunnels are Constructed

- Bridge is constructed as normal
- Tunnel is pre-constructed in pieces
- Ditch is dug underwater and plugged pieces lowered down
- Plugs are taken out and pieces sealed together

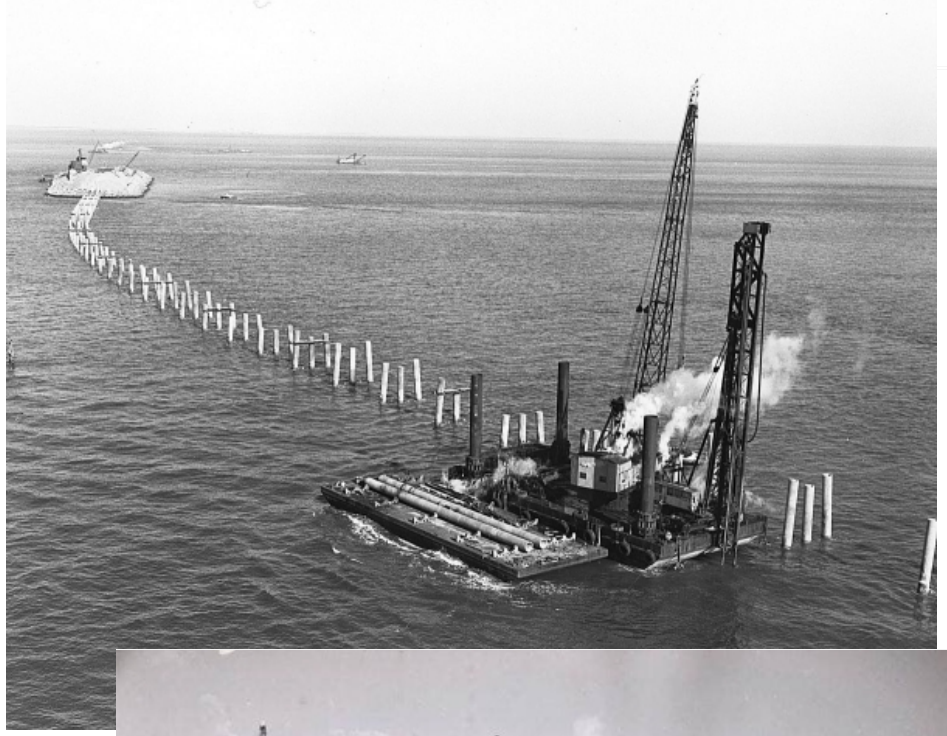
Before the Bridge-Tunnel

- Little Creek-Cape Charles Ferry Service carried cars across
- 90-minute journey, longer if bad weather



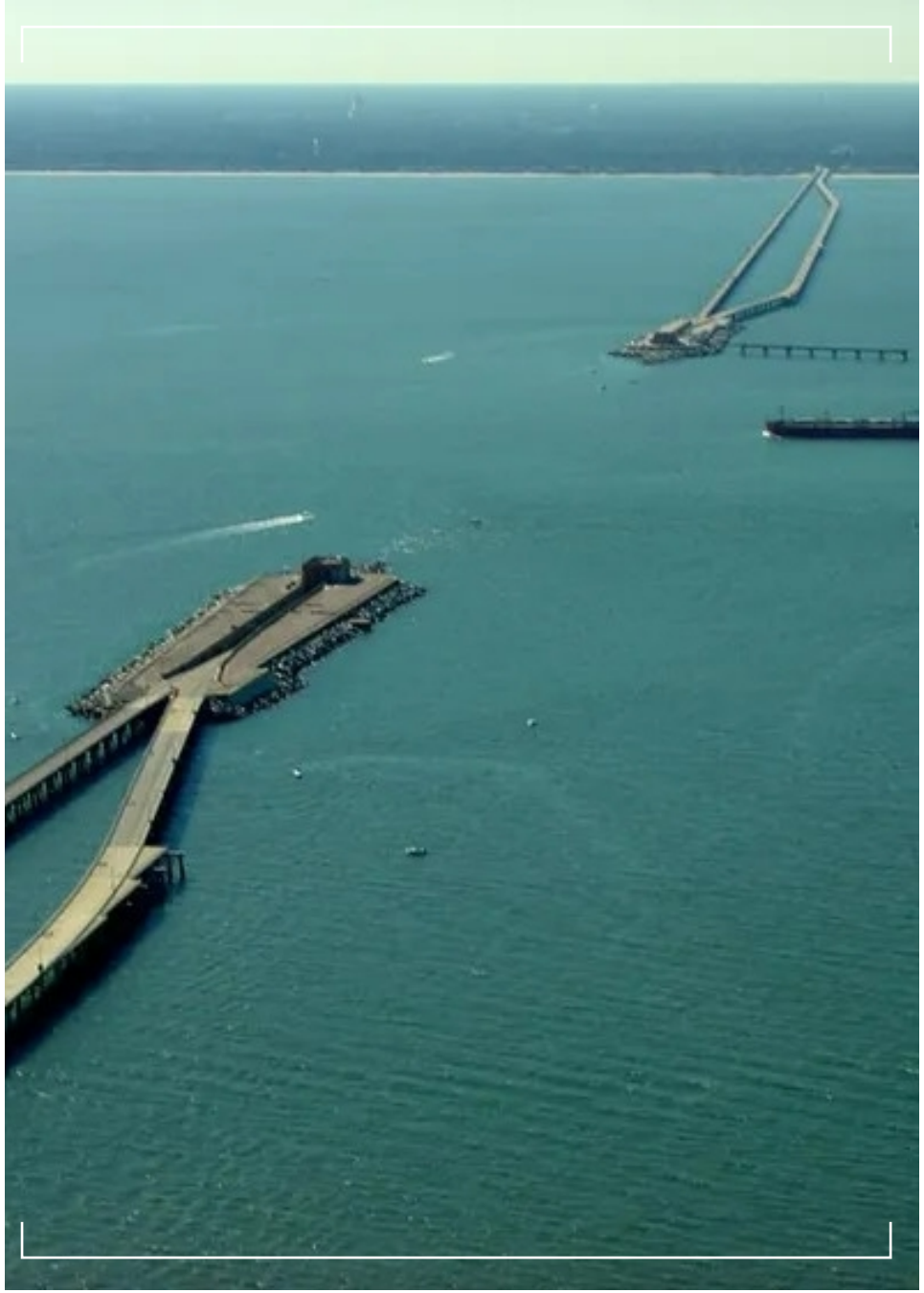
A Faster Way Across the Bay?

- In 1960 thousands of people joined together to build the bridge-tunnel
- Project took three and a half years, and cost 200 million dollars



17.6 Miles Long--95 Feet Deep

- Drilled pipes into seafloor to find the densest soil
- Drove piles into sand and cut them to required height (then capped,~5000 piles, only 2 lane then)
- Dredged out an underwater ditch for tunnel (rock-lined+rocks



More Than 50 Years Since

- Another bridge was constructed and became two lanes both ways
- The builder’s crew still goes out daily to check for wear, tear, and safety
- Another tunnel is being built next to one of the originals, second new tunnel planned for 2030

Sources

https://www.washingtonpost.com/lifestyle/kidspost/50-year-old-chesapeake-bay-bridge-tunnel-was-an-engineering-wonder/2014/07/10/cea84950-022a-11e4-8572-4b1b969b6322_story.html

https://en.wikipedia.org/wiki/Little_Creek-Cape_Charles_Ferry

https://en.wikipedia.org/wiki/Chesapeake_Bay_Bridge%E2%80%93Tunnel

Any Questions?