Prompt: Why did the disaster occur? How might it have been prevented? How & what did we learn from it?

Intro: Introduce topic, state thesis, allude to evidence to be used, *outline* paper,

Body: one example per paragraph, each example and paragraph clearly linked to thesis

Sources: 1 primary + 4 secondary

[1]

Ship and cannon of new design, cannon imported, ericsson not happy with Peacemaker but Stockton wanted it fitted, no one held responsible, S relieved of blaim [1]

[2] letter

Robert Stockton, navy, offered sec of navy and became commodore, fought in 1812 & against slave trade and pirates, inventor John Ericsson—later designed Monitor,

First ship built with screw prop, not wheel, “Oregon” of Ericsson’s planning—“Peacemaker” similar design,

Captain Stockton at time, 2 demonstration “voyages”/days beforehand, gun was of New York Manufacture, Oregon was British and had crack fixed

[3] Princeton & Peacemaker Study

“epoch making”

Wrought iron, not cast, joint effort ordered by Stockton

William Crane: chief of Bureau of Ordnance and Hydrography

Oregon cracked and had hoops fitted and shrunk—switch to welding and Amer metal in Peacemaker

1. Lee M. Pearson, “The ‘Princeton’ and the ‘Peacemaker’: A Study in Nineteenth-Century Naval Research and Development Procedures,” *Technology and Culture* 7, no. 2 (1966): 163–83, doi:10.2307/3102081.
2. George L. Sioussat, “THE ACCIDENT ON BOARD THE U. S. S. ‘PRINCETON’, FEBRUARY 28, 1844: A CONTEMPORARY NEWS-LETTER,” *Pennsylvania History: A Journal of Mid-Atlantic Studies* 4, no. 3 (1937): 161–89, doi:10.2307/27766255.
3. Olav Thulesius, *The Man Who Made the Monitor: A Biography of John Ericsson, Naval Engineer* (McFarland, 2007).
4. Ann Blackman, “Fatal Cruise OF THE PRINCETON,” *Naval History; Annapolis* 19, no. 5 (October 2005): 37–41.
5. Thulesius, *The Man Who Made the Monitor*.
6. Pearson, “The ‘Princeton’ and the ‘Peacemaker.’”
7. Blackman, “Fatal Cruise OF THE PRINCETON.”
8. William Conant Church, *The Life of John Ericsson* (Scribner, 1911).
9. Kerry Walters, *Explosion on the Potomac: The 1844 Calamity Aboard the USS Princeton* (Arcadia Publishing, 2013).
10. Church, *The Life of John Ericsson*.

Stockton pushed ahead against/without oversight

Both +/- opinions

Stockton both politics and engineering

[4] Book Explosion on Potomac

Unexpected?

Tyler wanted to modernize navy

[5] Canon text &/or textbook

Heat treating wrought iron bad

Find something about welding

[6] Life of John Ericsson

Much heavier and wider in diameter, same bore, finished under E’s directions

Amer iron was supposed to be higher quality

“thoroughly tested by charges varying from twenty-five to fifty pounds”

S confident because tested on ship

Banded guns became popular

Europe asked why Amer did not cont in heavy wrought iron guns after inventing them

[7] The Man who Made the Monitor

Found navy backwards, “this country requires no navy at all, let alone a steam navy”

Stockton friend of new pres, Ericsson drew up plans and wanted bigger

Eric not remunerated, left payment for patent up to gov, Stockton praised E

Wrought iron strong lengthwise, but weak transversely

“perfect in performance and safety”

Suggests S wanted Peacemaker to outdo E on ship and Oregon “Not satisfied with . . .”

“largest mass of iron every brought under the hammer”

E did not approve, S could not make a “wheelbarrow”, improper forging weakens considerably

“Nothing in history surpasses . . except moral daring of S”

“Peacemaker, a gun that had not been given the full U.S. Navy approval, was made of iron that was three-fourths the strength of Ericsson’s British built gun and poorly welded” – Naval Affairs Committee Board of Inquiry

“disaster unparalleled in history of American naval ordinance”

Response: limit explosive charge to 15 lbs, affected *Monitor* draw, which could have handled more

S covered up and attribed to E

E didn’t want to appear, should have been subpoenaed; S used as opp to cast blame

Princeton was first w/ prop & engines below waterline

During a ceremonial demonstration aboard the *USS Princeton* in 1844, a canon exploded while being fired, killing and injuring dozens of government figures. The canon that burst was the Peacemaker, one of the vessel’s two pioneering wrought-iron canons. No particular mistake or act of negligence caused the explosion. However, the development of the Peacemaker by Commodore Robert Stockton and the inventor, John Ericsson, lacked the due caution that would normally be expected when implementing new technology.

The Peacemaker was an exploration into new canon technology. It was made from wrought-iron instead of cast-iron, which allowed the gun to be of an unprecedented size. Furthermore, it crucially differed from its counterpart, the Oregon, by reinforcing the barrel with welded bands rather than shrunken hoops. The integrity of the Peacemaker was assumed based on satisfactory testing of the Oregon, and the effects of the differences in the design of the Peacemaker were almost entirely overlooked. Had the effects of the manufacturing change been considered or had the canon had been thoroughly tested, the unsoundness of the gun would likely have been determined and the tragic disaster could have been avoided. The explosion taught a lesson of caution in the development of new naval technology in the United States that slowed efforts by the president to modernize the navy with new technologies such as steam engines and screw propellers. The navy learned that new technologies needed to be critically evaluated and tested prior to their implementation, as was not the case with the *USS Princeton*.

Bibliography

Blackman, Ann. “Fatal Cruise OF THE PRINCETON.” *Naval History; Annapolis* 19, no. 5 (October 2005): 37–41.

Blackman’s article provides a brief account of the episode aboard the Princeton and is particularly critical of how, as she puts it, no one was held responsible.

Church, William Conant. *The Life of John Ericsson*. Scribner, 1911.

Church’s book describes the entire life of John Ericsson. With regard to the Princeton incident, he largely takes a non-accusatory stance, choosing not to cast blame on either Ericsson or Stockton. Unlike some of the other sources which seek to place blame on one or both men, Church seems to consider the explosion an unfortunate and unforeseeable tragedy.

Pearson, Lee M. “The ‘Princeton’ and the ‘Peacemaker’: A Study in Nineteenth-Century Naval Research and Development Procedures.” *Technology and Culture* 7, no. 2 (1966): 163–83. doi:10.2307/3102081.

Pearson’s article is the most technically-oriented source. He thoroughly analyzes how the canon broke, largely attributing it to the switch from shrunken bands to welded bands. He also takes a particularly negative view of Stockton, while portraying Ericsson as an innocent partaker who was not responsible for that lack of thorough analysis and testing of the Peacemaker. He also quotes extensively from many primary sources. In particular, he provides a look at government documents and reports pertaining to the incident that are only available as hard copies from the national archives.

Sioussat, George L. “THE ACCIDENT ON BOARD THE U. S. S. ‘PRINCETON’, FEBRUARY 28, 1844: A CONTEMPORARY NEWS-LETTER.” *Pennsylvania History: A Journal of Mid-Atlantic Studies* 4, no. 3 (1937): 161–89. doi:10.2307/27766255.

Sioussat is the editor of a letter by Geo Sykes to his sister which was printed in *Pennsylvania History*. Sykes’ letter details his first-hand account of what happened aboard the *Princeton* and serves as a primary source. Sykes was on deck when the canon exploded and provides a clear image of the horrifying scene as well as the political air of the event prior to the disaster.

Thulesius, Olav. *The Man Who Made the Monitor: A Biography of John Ericsson, Naval Engineer*. McFarland, 2007.

Thulesius’ biography provides a detailed look at the incident that is also fairly technical. He also is not particularly favorable towards Stockton and seems to hold him at least partially responsible.

Walters, Kerry. *Explosion on the Potomac: The 1844 Calamity Aboard the USS Princeton*. Arcadia Publishing, 2013.

Walters provides an image of the surrounding political landscape and the effects of the explosion. In particular, he discusses efforts to modernize the navy and the effects of the disaster on naval developments.