

OBSERVATION BALLOONS

Professor Thaddeus S C Lowe was an early advocate of hydrogen gas balloons. He was preparing to attempt a cross Atlantic flight when the Civil War broke out.

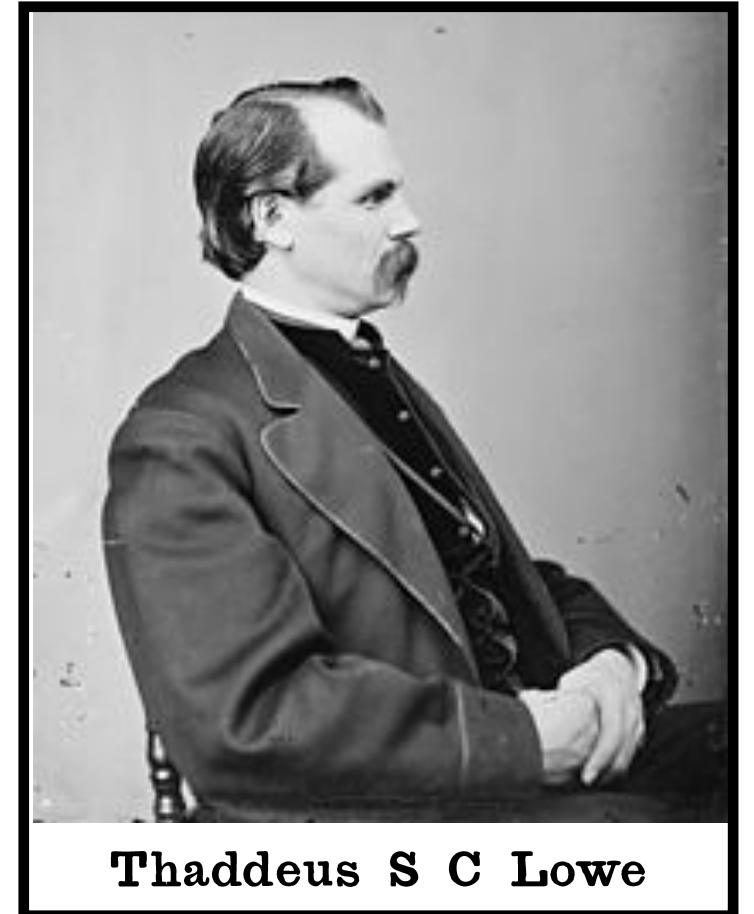
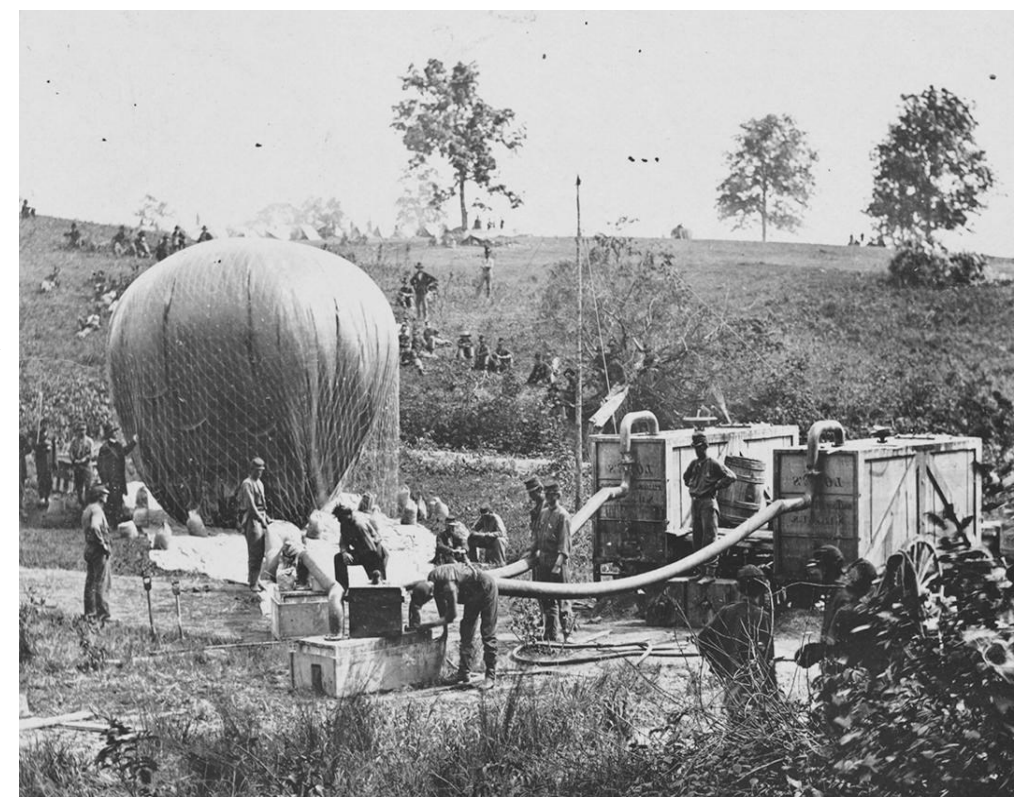
On 11 June 1861 he was able to gain an audience with President Lincoln and on 16 June 1861 he demonstrated his balloon the *Enterprise* from the lawn across the street from the White House. He telegraphed a message to the President describing his view of Washington D.C. from a height of 500 feet. The telegraph cable was affixed to the tether holding the balloon to the ground.

Lincoln was impressed and shortly thereafter appointed Lowe to be the Chief Aeronaut of the newly formed Union Army Balloon Corps. The stated mission of the Balloon Corps was to map battlefields and provide commanders on the ground details of Confederate forces.

Lowe used his balloon, the *Enterprise*, to observe Confederate movements at the First Battle of Bull Run, 21 July 1861.

On 24 September 1861, Lowe directed artillery fire onto Confederate installations at Falls Church, Virginia, with devastating effect. Using a tethered telegraph line, he was able to adjust the artillery fire from three miles away. This opened an entirely new dimension to warfare.

The following day, Lowe received orders to build four balloons and portable hydrogen gas generators. The portable generators used sulfuric acid and iron filings to generate hydrogen



Thaddeus S C Lowe

Lowe eventually built six balloons, three smaller 1-man balloons named: *Eagle*, *Constitution* and *Washington* and three larger balloons with room for an observer and telegraph operator. The larger balloons were named: *Union*, *Intrepid* and *Excelsior*.

Major campaigns that the Balloon Corps participated in were: Yorktown, Seven Pines, Antietam, Fredericksburg and major battles of the Potomac River and Virginia Peninsula.

The Balloon Corps was assigned to the Army Corps of Engineers in 1863, and Lowe, feeling demoted and underappreciated, resigned to follow private interests.

Without Lowe's guidance and drive, the balloons fell into disfavor with the military command and by 1 August 1863 the Balloon Corps had been disbanded.