THE PORT ARTHUR SEMAPHORE

Commandant Booth's story of adaptation and innovation

Commandant Charles O'Hara Booth's Semaphore

In 1833 Commandant Booth took up the challenge of extending a chain of semaphore stations from Hobart to Port Arthur. By 1840 he had established a network of stations to communicate with various settlements including Hobart Town, Eaglehawk Neck and the Coal Mines.

Semaphore stations were operated by well-behaved convicts who lived in small huts. Some of the semaphore codes were kept secret and were only known by high-ranking officials.

Experienced operators could send a message from Port Arthur to Hobart Town in under 15 minutes.

How a Tasmanian station worked
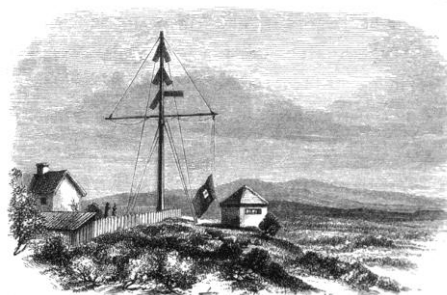
SIGNAL SEMAPHORE AT PORT ARTHUR.

- The station consisted of three levels, each with three arms. Two flagpoles projected from the base
- The top arms signified single units, the middle tens, and the bottom hundreds
- The flags were used to communicate that a message was starting or finishing, that a mistake had been made, or to communicate a number in the thousands
- Commandant Booth developed almost 3,000 codes, including letters, words and phrases, which were recorded in code books and frequently updated

Activity

The picture on the left shows the semaphore line from Port Arthur to Hobart Town. The purple dots represent additional stations set up to communicate with other settlements on the Tasman Peninsula. Using an atlas, find out:

d) The distance from Port Arthur to Hobart
e) The distance between each semaphore station on the Port Arthur – Hobart line
f) The approximate amount of time it took for the message to pass through each station (use the information above to help you!)

Port
Arthur
Historic
Sites

THE FRENCH SEMAPHORE

Before Commandant Booth developed his semaphore system, the French were leading the way

Claude Chappe's Semaphore

The world's first semaphore telegraph system was developed in France in the 1780s by a man called Claude Chappe. Using this system, messages sent from Paris could reach the other end of the country in three or four hours. Before, it had taken riders on horseback three or four days.

Messages were converted into semaphore signals by officials in Paris, and then passed through the chain of stations, each approximately 10 kilometres from the next. The semaphore operators had no idea of the meaning of the message; they simply copied down the signals and passed them to the next station.

At its largest, Chappe's semaphore system consisted of 534 stations, covering more than 5,000 kilometres.

How a Chappe station worked

- The two arms each rotate into seven separate positions, creating 49 combinations, while the central beam can be vertical or horizontal - making 98 in all

- Six of these positions represented service messages such as "ready to transmit" and "taking a break"

- The remaining 92 corresponded to 92 pages in a code-book, each of which contained 92 different words

- That made a total vocabulary of nearly 8,500 words

- The word army, for example, might be the 24th word on page 19. So the operator would send the signal for 19 to indicate the page, then 24 for the word on that page

Spread of the Chappe telegraph 1793 - 1854

- Revolution (1789 - 1799)
- Napoleon (1799 - 1815)
- Restored monarchy (1815 - 1848)
- Later lines
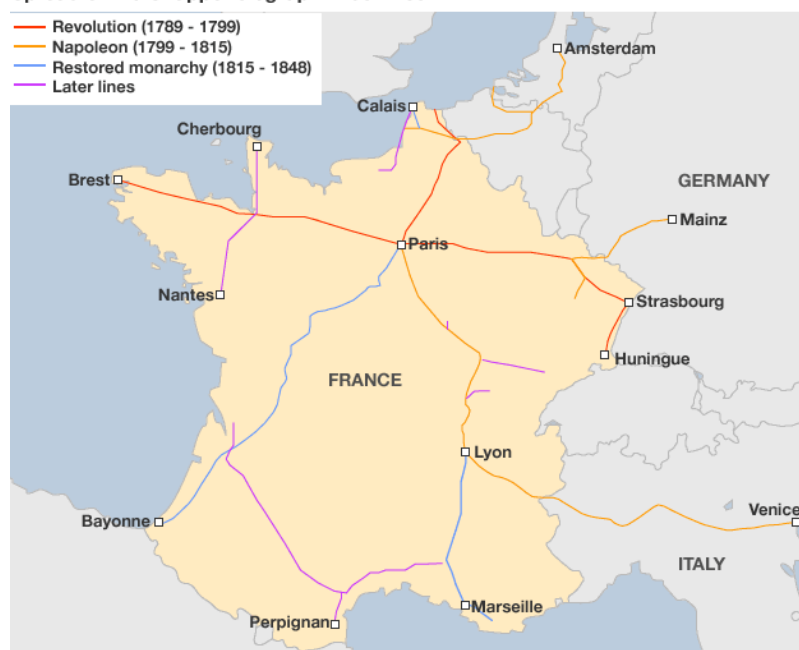
Activity

The picture on the left shows how far the Chappe semaphore lines extended. The record time for sending a message on the French semaphore was 60 minutes from Paris to Strasbourg. Using an atlas, find out:

a) The distance from Paris to Strasbourg
b) The approximate number of semaphore stations between Paris and Strasbourg (use the information above to help you!)
c) The approximate amount of time it took for the message to pass through each station

Source: Schofield, Hugh (16 June 2013), *How Napoleon's semaphore telegraph changed the world*, BBC News Magazine, http://www.bbc.co.uk/news/magazine-22909590