

Victorian and Edwardian Military SF

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This is an informal talk originally given at the 2011 UK National Science Fiction Convention under the title of *Empire of Earth*. It discusses the ancestry of military SF, the evolution that eventually lead to Robert W. Cole's *The Struggle for Empire*, and this book's role in the history of SF. I've fixed some factual errors but resisted the urge to make it more formal or otherwise second-guess myself. When reading it, you should imagine the author ad-libbing fairly often (unfortunately I don't have any record of what I said) and periodically shouting "And bring about world peace!" as I summarised plots that would most likely result in global devastation or an absolute dictatorship. In other words, while I've tried to be factually accurate, you shouldn't take this too seriously! It was originally illustrated with a PowerPoint presentation of the images I've inserted into the text. A lot of the examples and illustrations are from the works of George Griffith, which may be overstating his importance to the genre; I had them handy since I based some of the earlier game releases on his work.

At the time I gave this talk I was planning to use the book as a main source for the next *Forgotten Futures* RPG supplement – for various reasons that didn't happen, but I'm gradually putting some of this material on line. *The Struggle For Empire* and a couple of other stories I intended to use are already on my site, hopefully I will get this more organised and put up some of the game material I wrote for it eventually, if I can make it a little more coherent.

Hello. I'm Marcus Rowland, and for those of you who haven't suffered through one of my talks before, I publish a role playing game called *Forgotten Futures* which is based on Victorian and Edwardian fantasy and science fiction. By the way, that's technically a lie because the term science fiction didn't actually exist until considerably later, most scholars prefer "scientific romances," but I digress. I tend to read a lot of the stuff, whatever you call it, and today I'm going to look at a particular subset of these stories – early military SF.



Hundreds of war stories were published from the mid nineteenth century onwards, many of them describing imaginary wars between France and England, Russia and Germany, Zulu uprisings, or whatever military threat seemed most credible at the time. There wasn't much distinction between ordinary action stories and those that involved some sort of SF element. A term that could usefully be applied to many of them is techno-thriller. I'm going to concentrate on a few that did have some of the features we'd expect from SF, but don't forget that there were hundreds of others.

Incidentally, you shouldn't think that this was purely a British phenomenon, or short-lived – one of the articles I found in a 1918 issue of *Pearson's weekly*, published just after the armistice that ended the first world war, was a scathing review of "Hindenburg's March Into London," a German war novel of 1915 which predicted a crushing defeat for the allies. There were dozens of similar novels written by authors on the Allied side, of course.

Getting back to SF, the simple form of these stories usually involved a mad scientist or anarchist who invented a new weapon and used it to terrorize the world, or impose his will on it. Verne pioneered the field with *The Clipper of the Clouds* and *20,000 Leagues under the Sea*, with dozens of

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imitators. Usually the weapon was some sort of flying machine, used to bomb the rest of the world into submission. Here's an example, from George Griffith's *The Outlaws of the Air*, published in 1895. We join the story just after a huge London crowd has seen the leader of the anarchists rescued from the gallows by his loyal followers:

For fully ten minutes the *Vengeur* circled slowly round over the agonised thousands, as though her captain and crew were enjoying in anticipation the horrors that they were about to add to the frightful scene beneath them. Then Max stopped her a couple of hundred feet over the cross of St. Paul's, with her bow pointing westward, and called down one of the tubes-

"Ready with the forward guns - one on the end and one on the middle of the street. Let go!"

There was a sharp, hissing sound as the pent-up air in the breech-chambers forced the projectiles out. Then two bright masses of flame blazed out, followed by the mingled roar of the explosions and the crash of glass as the neighbouring shop windows were blown in.

Two great ragged gaps were torn in the densely packed masses amidst which the shells fell, as though the earth had burst open beneath their feet, and bodies of men and women were hurled up into the air, mingled with limbs and torn fragments of other bodies, and fell back upon the heads of those who thronged the pavements. Then, in the midst of such a cry of agony and terror as had never reached human ears before, Max took up another tube, and said-

"Ready with the port stern gun! Send a shell into that lot where the four streets meet!"

Again the hissing sound came, and the shell burst in the midst of the throng that was packed into the junction of Cheapside and Newgate Street, with the same hideous effects.

"Starboard bow gun - a couple of shells in the crowd by the church there. Port bow, another under the bridge! Port stern, send a shell at that big building with the pillars in front of it - that's what they call their Royal Exchange - bourgeois swindling den!"

His orders were obeyed almost as soon as they were given, and, as each shell struck and burst, the scene of wholesale murder became more and more hideous, for the fearful effects of the projectiles seemed to strike the helpless throngs with paralysis, and all they could do was to sway to and fro, and scream and moan with terror, as though they intuitively knew that they were at the mercy of an enemy from whom there was no escape.

Some made wild rushes into the shops and houses, and as soon as he saw this, Max ordered the guns to play upon them, loaded with fire-shell, and a few minutes later unquenchable fires were blazing furiously in a score of houses and shops all round the area of slaughter and destruction. Then, like the incarnation of an evil spirit brooding above the scene of indescribable horror, the *Vengeur* passed slowly over the streets dropping bombs charged with fire-mixture as she went, and when she had completed the circuit, a ring of flame and smoke encircled the black frowning walls



SHE FLASHED FAREWELL WITH HER SEARCHLIGHTS.

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of the prison in which everyone had believed by this time Max Renault would have been hanging by the neck.

Stories like that usually began as a very one-sided sort of war, with the villains holding a huge advantage over the rest of the world. Generally they were defeated when someone else came up with a better weapon, typically a better flying machine. In *The Outlaws of the Air* a consortium of capitalists including Hiram Maxim of Maxim gun fame are responsible for building a fleet of flying machines which overcome the anarchists and bring about world peace. In others some weakness of the villain resolves the situation.

So far I haven't mentioned the most famous of all of these uneven wars, Wells' *The War of the Worlds*. It's a novel I have mixed feelings about – it's one of the all-time classics, but it introduced the cliché of alien invasion, which dominated way too much SF for far too long. For most of the book humanity is helpless in the face of the Martian attack. The nearest thing to an even fight is about half-way through the story, when the narrator's brother is aboard a paddle steamer trying to escape from the invaders:

A douche of spray blinded my brother for a moment. When his eyes were clear again he saw the monster had passed and was rushing landward. Big iron upperworks rose out of this headlong structure, and from that twin funnels projected and spat a smoking blast shot with fire. It was the torpedo ram, *Thunder Child*, steaming headlong, coming to the rescue of the threatened shipping.

Keeping his footing on the heaving deck by clutching the bulwarks, my brother looked past this charging leviathan at the Martians again, and he saw the three of them now close together, and standing so far out to sea that their tripod supports were almost entirely submerged. Thus sunken, and seen in remote perspective, they appeared far less formidable than the huge iron bulk in whose wake the steamer was pitching so helplessly. It would seem they were regarding this new antagonist with astonishment. To their intelligence, it may be, the giant was even such another as themselves. The *Thunder Child* fired no gun, but simply drove full speed towards them. It was probably her not firing that enabled her to get so near the enemy as she did. They did not know what to make of her. One shell, and they would have sent her to the bottom forthwith with the Heat-Ray.

She was steaming at such a pace that in a minute she seemed halfway between the steamboat and the Martians – a diminishing black bulk against the receding horizontal expanse of the Essex coast.

Suddenly the foremost Martian lowered his tube and discharged a canister of the black gas at the ironclad. It hit her larboard side and glanced off in an inky jet that rolled away to seaward, an unfolding torrent of Black Smoke, from which the ironclad drove clear. To the watchers from the steamer, low in the water and with the sun in their eyes, it seemed as though she were already among the Martians.

They saw the gaunt figures separating and rising out of the water as they retreated shoreward, and one of them raised the camera-like generator of the Heat-Ray. He held it pointing obliquely



In another moment he was cut down.

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downward, and a bank of steam sprang from the water at its touch. It must have driven through the iron of the ship's side like a white-hot iron rod through paper.

A flicker of flame went up through the rising steam, and then the Martian reeled and staggered. In another moment he was cut down, and a great body of water and steam shot high in the air. The guns of the *Thunder Child* sounded through the reek, going off one after the other, and one shot splashed the water high close by the steamer, ricocheted towards the other flying ships to the north, and smashed a smack to matchwood.

But no one heeded that very much. At the sight of the Martian's collapse the captain on the bridge yelled inarticulately, and all the crowding passengers on the steamer's stern shouted together. And then they yelled again. For, surging out beyond the white tumult, drove something long and black, the flames streaming from its middle parts, its ventilators and funnels spouting fire.

She was alive still; the steering gear, it seems, was intact and her engines working. She headed straight for a second Martian, and was within a hundred yards of him when the Heat-Ray came to bear. Then with a violent thud, a blinding flash, her decks, her funnels, leaped upward. The Martian staggered with the violence of her explosion, and in another moment the flaming wreckage, still driving forward with the impetus of its pace, had struck him and crumpled him up like a thing of cardboard. My brother shouted involuntarily. A boiling tumult of steam hid everything again.

"Two!," yelled the captain.

Everyone was shouting. The whole steamer from end to end rang with frantic cheering that was taken up first by one and then by all in the crowding multitude of ships and boats that was driving out to sea.

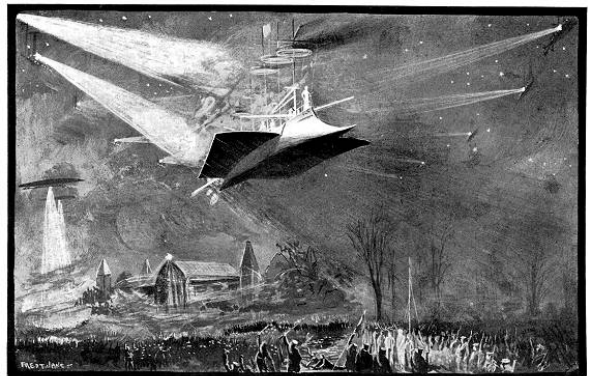
The steam hung upon the water for many minutes, hiding the third Martian and the coast altogether. And all this time the boat was paddling steadily out to sea and away from the fight; and when at last the confusion cleared, the drifting bank of black vapour intervened, and nothing of the *Thunder Child* could be made out, nor could the third Martian be seen. But the ironclads to seaward were now quite close and standing in towards shore past the steamboat.

Incidentally, I was hoping to play the *Thunder Child* sequence from Jeff Wayne's *War of the Worlds* album at this point, but it turns out not to be a particularly close match to the original text. It's good fun though, and I thoroughly recommend it as a musical interpretation of the story.

While all of these uneven fights are interesting in their own way, there's a sense in which most of them are power fantasies. The author is saying "this is what I could do if I could fly and nobody else could; rain death and destruction on my enemies." For a real military story you need an enemy that fights back.

Going back a few years, George Griffith wrote what were probably the first stories on those lines in 1893-4, in the novels *The Angel of the Revolution* and its sequel *Olga Romanoff, or the Syren of the Skies*. This second of these is the first SF novel that really takes on board the idea that if you can build one warship, you can probably build a couple of hundred of them, and features huge battles between gigantic fleets of flying ships. Both were beautifully illustrated by someone with a real knowledge of military hardware – Fred T. Jane.

Jane's career is interesting. He started out as an illustrator and author, and his credits include three novels and some shorter fiction, plus a series of "life in the year 2000" pictures. He was also interested in war-games, and wrote a set of very detailed naval rules, which eventually evolved into the training war-game used by the Royal Navy,



"A vision which no one who saw it forgot to the day of his death."

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and still see some use today. While developing it he needed detailed information on real fleets – eventually he published the information as illustrated volumes, the *Jane's Fighting Ships* series, with the game as an appendix in early editions. So don't let anyone tell you that war-games aren't good for anything!

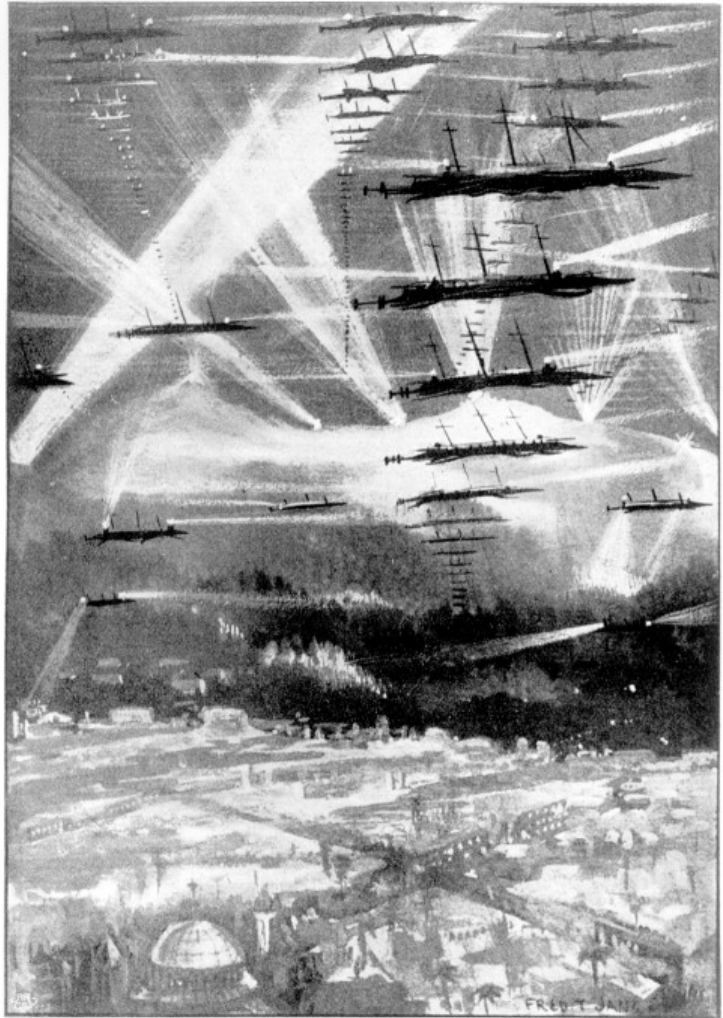
Here's one of the battles Griffith described, from the second book. The situation is fairly complicated; basically, an Islamic fleet led by a Moslem prince and Olga Romanoff, the last descendent of the evil Tsars, are fighting against the Aerians, an independent nation founded by anarchists who until recently enforced a global peace through a monopoly on flight. Now they have rivals. More importantly, the world is about to be destroyed by a rather implausible astronomical catastrophe. Only the occupants of a bunker deep below Aeria will survive, if it can be protected from attack. Unfortunately the enemy knows this and wants to destroy the bunker:

Hour after hour the Moslem and Russian air-ships strove to out-soar the Aerians, or to make a rush in twos and threes that would bring them within range of the charmed circle of the mountains. But no sooner did one of them sweep up at full speed out of the distance and slow down sufficiently to train her guns than the atmosphere about her was convulsed with a mighty shock and changed instantly into a mist of fire, and when this vanished she had vanished too, shattered to fragments which dropped in a rain of molten metal thousands of feet to the earth below.

Morning came, the flaming arch of the Fire-Cloud sank lower and lower in the heavens until it stretched a broad band of lurid light round the western horizon, and an unclouded sun brought the last dawn but one that the terror-maddened myriads of earth would ever see. Still the fight went on at long ranges; still ship after ship of the hostile fleet made its desperate effort to cross the invisible barrier which was drawn all round Aeria by the range of its protecting guns, only to be overturned and hurled to the earth by the shock of an exploding projectile or to be fairly struck and dissolved to dust.

No matter how high they attempted to soar, the *Alma* and the *Isma* were still above them, and if the shells from the land batteries failed to do their work the guns of the air-ships did it for them and the result was the same – annihilation.

There now was no thought of safety in the hearts of the Aerians. They had come forth to kill and be killed. The rules of aerial tactics were utterly neglected. They laid their guns alongside and, rushing through the air at their utmost speed, they hurled themselves with the ram upon



THE FOUR HUNDRED BATTLESHIPS OF THE TWO SQUADRONS ROSE INTO THE AIR.

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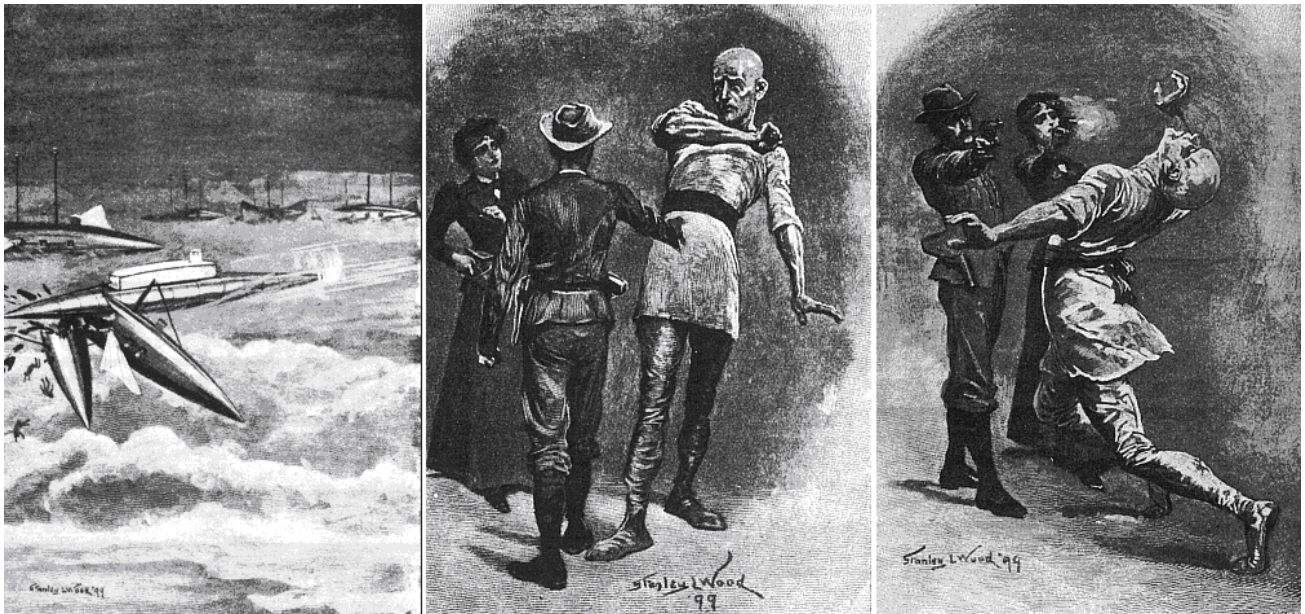
every Moslem or Russian vessel that they could meet or overtake, crashing into her with irresistible force and going with her into annihilation as their two cargoes of shells exploded under the shock.

The last sun rose and saw the fight still going on. What had begun as the greatest battle in the history of war had now dwindled down to a series of single combats. At length the end came. It was a few minutes after midday that the last blow in the battle was struck. Ten Russian and Moslem air-ships, all that remained of the great fleet that Olga had brought against Aeria, formed in line ten miles from the Ridge and made a last attempt to break through the defences.

Flying through a storm of shells from the land batteries, seven of them were torn to pieces and the other three, just as they reached the Ridge, were met obliquely by the five remaining vessels of the Aerian fleet. The same moment the Alma's broadside was discharged upon them, friend and foe vanished together in a mist of flame-- and so ended the assault and defence of Aeria.

At this point we have predecessors of most of the ingredients of the modern military SF novel, in one form or another. Before the end of the century Wells added antigravity, in *The First Men in the Moon*, and there were soon stories in which brave explorers from Earth visited new worlds and new civilizations, and killed the bally natives with their trusty Maxim guns.

The pictures are from George Griffith's 1900 story *The World of the War God*, part of *Stories of Other Worlds* AKA *A Honeymoon in Space*, in which the hero and heroine and their trusty servant, the first human visitors to Mars, first ram and destroy an entire Martian fleet which appears to have done them no harm, then wipe out an angry Martian mob who for some reason are a little upset about this, and finally murder the Martian ruler; British diplomacy at its finest!



You've probably never read the novel that actually put all the pieces together and seems to be the first to depict a war that's actually waged in space; it's very obscure, and disappeared for nearly a century after publication. It's *The Struggle for Empire: A Story of the Year 2236* by Robert William Cole, about whom little is known. He wrote four books which were published by small presses around the turn of the century. It's currently only available in a facsimile edition published in the nineties, but next year I should be putting the full text on line as a free download as part of the next release of my role playing game.

The premise is simple; Earth's Anglo-Saxon Empire and the Sirian planet Kaiet have both developed space travel and technology that includes antigravity, interstellar travel, force fields, and death rays. They dominate colonial empires, which come into conflict as a result of human and Sirian

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greed. Eventually the Sirians deliver an ultimatum, setting a date for the commencement of war, and the Empire prepares for battle:

At last, when the month came to an end, a vast fleet was assembled at a short distance from London, ready to dash into space and annihilate the foes of the Anglo-Saxon race. There were in all nearly 300 huge first-class battleships, 800 of the second class, 1,600 third, and 500 swift ships to act as cruisers, besides numerous transports filled with soldiers, and a countless host of small craft that performed the same functions as the torpedo-boats of the old days of war on the sea.

The whole of the armament was divided into ten divisions, each commanded by an admiral who was, in his turn, with certain limitations, under the orders of the Admiral-in-Chief who commanded the whole. The divisions were further subdivided, and each subdivision was under a sub-admiral, so that the movements of the fleet could be controlled better. Nearly 2,000 vessels were ready to join the fleet at Neptune, and then the combined fleets were to dash into space and seek their foes.

As is customary in military SF, we learn quite a lot about the ships of the fleet in the next chapter:

All the ships were built of the light and tensile metal Firmium, which is lighter and much stronger than the metal called Steel, which was so much used by our ancestors. Most of them were cigar-shaped, but others were much flatter, and there were a few that were very long and thin. The largest were about 300 yards in length; the rest varied in proportion down to the torpedo-boats, which were only 15 yards long. All the ships were built on the same principle. The outside of the hull was surrounded by a thick sheathing of Firmium, and there was a powerful ram at both ends. The inside was divided into a number of decks, according to the size of the vessel. These, again, were divided into compartments by air-tight doors, so that if the hull were pierced by a shot the air would only escape from one compartment, and thus the rest of the crew would not be harmed. Air in the liquid state was stored in reservoirs in the middle of the vessel, and let out as required, while the vitiated air was allowed to escape into space. As the air in the interior was under a pressure of 15 pounds to the square inch, great care had to be taken to prevent it from leaking through the outer sheathing. If a hole happened to be made through the latter, the air rushed out in a second, and the unfortunate men inside died immediately.

The cannon slid in and out through tubes fitted with telescopic joints, which rotated in gimbals, so that they could be worked without allowing air to escape, and the muzzle of the gun was closed by a slide while the shot was introduced at the breech. The torpedoes were worked from torpedo-tubes in the same manner. The cannon varied in size from 200 tons to 10-pounders, the armament of each ship being selected according to the duties which it was expected to perform in an engagement. Besides the holes for the cannon, the hull was pierced in many places by other holes, which were filled up with the transparent metal Lumium, so that the sailors could see what was taking place outside.

The propelling machinery was placed in the centre, and protected by another metal sheathing, while in the centre of all was the captain's room. In the interior of this there was a sphere made of metal a couple of feet in thickness, and varying from 7 to 30 feet in diameter. It was here that were collected together all the handles and wheels for navigating the vessel and sending and receiving messages from other ships, and a number of telephones that communicated with every compartment.

There were no windows, but a picture of the exterior was thrown on to a screen which extended right round the wall by the telephotoscope, so that the captain knew exactly what was going on outside. When an engagement was taking place in space, the captain, accompanied by one or two other officers, entered this sphere and was hermetically sealed up in it. As two or more solid sheets of metal had to be pierced before they could be touched, the commanding

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officers and the important machinery which they controlled were comparatively safe while the rest of the vessel was being battered to pieces.

This is actually one of the most interesting technological ideas in this book – basically, it's the bridge screen we see in *Star Trek* and other SF, invented in 1900 then pretty much forgotten. It's a little like the modern idea of a command and control centre, although rather more primitive. You may have also noted something that sounds a lot like "transparent aluminium" in there! Maybe I should mention that some of the other devices in this story include interplanetary radio, something that sounds a lot like RADAR, and advanced "spoofing" technology used to decoy warships away from their targets.

Inevitably the fleets clash:

As they moved forward in a long line a powerful division of the enemy advanced to meet them. When they were within two miles of each other the sixth division opened fire, and the Sirian ships immediately replied. Long jets of white fire some hundreds of yards in length leapt from the sides of every ship, and were followed by great clouds of white vapour that rushed through space with the speed of a tempest. These rolled along until they hit against another ship, when they were shattered to pieces and filled the space around with a dim mistiness. Every now and then a column of vapour burst forth from the side of some vessel when the metal sheathing was pierced and the imprisoned air rushed out. The two long lines of flaming vessels gradually drifted nearer to one another, until they were about a mile apart, vomiting out sheets of fire, while the space between was swept by a storm of shot and shell. Neither side dared to approach any nearer, for the concentrating reflectors were ready to liquefy any vessel that came within range. The space all round the contending lines was soon filled with clouds of vapour and pieces of exploded shells and fragments of metal that had been torn off the outsides of the ships. Most of the vessels were slowly turning round about their longitudinal axis, discharging a terrific broadside from each deck as it came within range, the discharged guns being loaded while they were turned away from the enemy.

Both sides soon began to show the effects of the terrible fire to which they were exposed. Many of the ships had large dark-coloured rents in their hulls, from which masses of twisted and broken metal-work protruded. The fittings on the exteriors were severely damaged. The balustrades were shot away, the muzzles of the guns were cut off and blown into space, and the protection apparatus on the outsides was soon pounded into a useless mass of wires and rods. Dismounted guns, mangled bodies, and reddened limbs were floating about everywhere, some of them suddenly vanishing as they were struck by a passing shot. Great pieces of metal with the guns and other machinery attached to them were blown off wherever a shell from one of the largest cannon hit its mark. The scene was sublime, but awful.

The sides of every ship soon became a seething mass of flame and smoke, in the midst of which its form could be barely distinguished. Every moment long white flashes leapt outwards, being varied at intervals by columns of purple and green flame when the great guns were discharged. When the ships were close together, flames clashed against flames, leaping up and tossing high into space like a tempest-raging ocean, and the smoke columns dashed against one another, forming walls of white vapour that quivered under the shock. Sometimes the projectiles and torpedoes clashed together, producing brilliant flashes of light.

The inevitable result is that both fleets pound each other to a bloody pulp. Due to Sirian trickery a large number of Anglo-Saxon ships are lured away from the battle, allowing the Sirians to invade our solar system. From then onwards the war gets more and more bloody, until countless millions have died. One side does eventually win, but the costs are out of all possible proportion to the minuscule benefits of victory. It's not a cheery book, but it's rather more realistic than many of its predecessors.

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I should make it clear that I'm not claiming that this book is a lost masterpiece of SF; in many respects it isn't particularly well-written, and it was published by what may have been a vanity press and soon disappeared without a trace. I do think that it's an interesting book and well ahead of its time. Most importantly, it shows that most of the elements of modern military SF, at least as applied to space warfare, were already in play much earlier than we might imagine.

Here's a list of the sources I've used today. One other story you might want to read is Kipling's *As Easy as A.B.C.*, a lovely story of a non-war in a future utopia, but it's a little outside the period covered by today's talk, and I've bent people's ears about it too many times before. All I can say is read it!

And with that thought let's see if anyone has any questions.

Sources

Hindenberg's March into London	Paul G. Munch	https://archive.org/details/hindenburgsmarch00redmuoft
The Clipper of the Clouds	Jules Verne	https://archive.org/details/clipperclouds00verngoog
20,000 Leagues Under The Sea	Jules Verne	https://archive.org/details/20000leaguesunde00verniala
The Outlaws of the Air	George Griffith	https://www.forgottenfutures.com/game/ff9/outlaw.htm
The War of the Worlds	H.G. Wells	https://www.gutenberg.org/etext/36
Thunder Child	Jeff Wayne	https://youtu.be/-reAahY1GCE
The Angel of the Revolution	George Griffith	https://forgottenfutures.co.uk/ff7/angel.htm
Olga Romanoff	George Griffith	https://forgottenfutures.co.uk/ff7/olga.htm
The World of the War God	George Griffith	https://www.forgottenfutures.com/game/ff2/mars.htm
The Struggle for Empire	Robert W. Cole	https://www.forgottenfutures.com/game/ff12/struggle.pdf
As Easy as A.B.C.	Rudyard Kipling	https://www.forgottenfutures.com/game/ff1/nm-abc.pdf

Illustrations

Page	Source
1	<i>The Year 2000</i> - Villemard, 1899 - Chromolithographie Paris, BNF, Estampes. A series of cards depicting the world circa 2000 AD, this one is entitled "Automobiles de Guerre" or "Cars of War"
2	<i>The Outlaws of the Air</i> (1895), art by Edwin S. Hope
3	<i>The War of the Worlds</i> (Pearson's Magazine, 1897), art by Warwick Goble
4	<i>The Angel of the Revolution</i> (1893), art by Fred T. Jane
5	<i>Olga Romanoff or The Syren of the Skies</i> (1894), art by Fred T. Jane
6	<i>The World of the War God</i> (1900), art by Stanley Wood

End note

Since giving this talk I've learned a little more about Robert William Cole (1869-1937). He studied law at Balliol, Oxford, intending to become a barrister, but at some point changed his plans and became a professional photographer and author instead. He wrote four novels:

The Struggle for Empire: A Story of the Year 2236 (1900)

His Other Self: The Story of a Man with a Past (1906)

Fantasy – a reformed rake is haunted by the ghost of his past.

The Death Trap (1907)

Military fiction – Germany, France, and Russia declare war on Britain

The Artificial Girl (1908)

Romantic comedy – a young man disguises himself as a woman to attend a girl's school and pursue the woman he loves