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Stephen: *Did you ever play tic-tac-toe?*

Jennifer: *Yeah, of course.*

Stephen: *But you don't anymore.*

Jennifer: *No.*

Stephen: *Why?*

Jennifer: *Because it's a boring game. It's always a tie.*

Stephen: *Exactly. There's no way to win. The game itself is pointless! But back in the war room, they believe you can win a nuclear war.*

[after running through all nuclear war scenarios]

Joshua/WOPR: *Greetings, Professor Falken.*

Stephen Falken: *Hello, Joshua.*

Joshua/WOPR: *A strange game. The only winning move is not to play. How about a nice game of chess?*

– Wargames (1983)

Drama: How farfetched did Wargames seem? The AI program Eurisko did essentially the same as Joshua (with considerably less over-dramatization) and crushed the Traveller Trillion Credit Squadron national tournament in 1981 and 1982, a year before Wargames (1983), see quote in Imperial Admiral Eurisko, 4 Colleges, pp. 512-513, *supra*. Able Archer exercise (November 7-11, 1983) later that year brought the world to the brink of nuclear war, a month after Soviet tracking systems mistook cloud reflections for a first strike ICBM launch by the U.S.

*“What am I supposed to do
If I want to talk about peace and understanding
But you only understand the language of the sword
What if I want to make you understand that the
path you chose leads to downfall
But you only understand the language of the sword
What if I want to tell you to leave me and my beloved ones in peace
But you only understand the language of the sword
I let the blade do the talking...
So my tongue shall become iron
And my words the mighty roar of war
Revealing my divine anger's arrow shall strike*

*Beloved brother enemy
I sing my sword song for you
The lullaby of obliteration
So I can wake up with a smile
And bliss in my heart...
Coexistence, conflict, combat
Devastation, regeneration, transformation
That is the best I can do for you”*

– Heilung, “Kriegsgaldr” (2015)

The Come As You Are Party: GGDM doesn't have to be a wargame, players could agree on that, but here is the eternal conundrum: If you are going into the unknown, can you risk not bringing a weapon? As syfy.co.uk succinctly put it:

- ✓ “If Star Trek has taught us anything over the years, it's that pacifism, diplomacy and mutual understanding are the greatest weapons in any explorer's toolkit. But that doesn't mean you shouldn't also carry a phaser, just in case...” – “Ranked! Star Trek's 25 deadliest races, from the Romulans and Q to the Borg and Breen.”¹
- ✓ See also related discussions of starships in *Starship Jefferson*, 1 Stardrive, p. 780, *supra*, and exploration with warships, *Send the Enterprise!*, 3 Expansion, p. 909, *supra*.

And if the other guy has a weapon, you must also have an equal or better weapon, and so it goes ever onward through history.² Call it a lack of faith in fellow humanity and the universe (see also alterity discussions in *Let it Bee*, 1 Diplomacy, p. 1105, and *Mephisto's Marriage Counseling*, 3 Diplomacy, p. 1135, *infra*).

- ✓ “So be it, threaten no more, to secure peace is to prepare for war!” – Metallica, “Don't Tread on Me” (1991).

The ultimate form of this argument played out across the last half of the 20th Century; the world's major powers had nuclear weapons because others had nuclear weapons, and when there were enough such weapons to destroy humanity and most life on Earth, the weapons became a very expensive and practically useless implement of power. Instead, they became an enduring risk-management, slippery-slope restraint on the Cold War struggle that prevented the outbreak of major conventional warfare among the major powers (Ozzy Osborne, “Thank god for the bomb...,” *ut infra*). The current world was instead shaped by proxy wars, clandestine operations.

- ✓ We never thought it likely that the Soviets could beat us in full conventional ASL battle, rather, we were concerned what would happen when they could not. Deterrence is a tricky thing, once it failed to dissuade the Soviets from starting WWII, our technological offset strategy and containment strategy would become a slippery slope liability increasing the probability of the use of chemical and nuclear weapons

The Come-as-You-Are Party is an obsolete type of casual party from the time of more formal public dress codes of the mid-20th Century; you wore to the party whatever you happened to be wearing the moment you received the invitation.

- ✓ “Old newsreels of people walking along in any downtown setting show men in fedoras, women in skirts and heels – absolutely no one would consider ratty jeans or drawstring pants acceptable out in public. Hence the guffaws when we would see one another in clothes old women used to say they ‘wouldn't wear to a dog fight.’ It wasn't that everyone was insanely vain, it was that they simply took pride in their appearance and in wearing what suited the occasion. It was a point of etiquette, compliance with the dress code.” – Joni Hilton, “The Ultimate ‘Come As You Are’ Party,” *Meridian Magazine*, June 13, 2010.³
- ✓ A comic I remember from my youth: A man is laying naked in bed with his mistress. She is on the phone. She turns to him and says, “Your wife just invited us to a come-as-you-are party.”

- Nuclear Paradox: It is both true that thermonuclear weapons are the most powerful weapons humans have ever had (and that nuclear weapons are the most powerful weapons ever used in war on Earth) and that they are the most useless weapons in the arsenals of modern nations.

I recall reading somewhere (and I cannot find it now) that in the early centuries of the last millennia, some theorized that if there were enough gunpowder in the national arsenals of the Earth, they could blow up and destroy the Earth in a simultaneous or chain reaction explosion. Such a thought seems rather quaint now, but the idea was there in the early days of the new warfare based on chemical explosives that human destructive potential with new technologies could ‘destroy’ the Earth. Five centuries later the thought resurfaced in the popular imagination as potential reality.

- ✓ “For peace and trust can win the day, despite all your losing.” – Led Zeppelin, “Immigrant Song” (1970).

France has nuclear weapons; arguably France is more powerful now (in terms of destructive abilities) than at any previous time in history. However, France has not been the aggressor in a continental European war since 1870 (though has had military adventures elsewhere), is a member of the EU and NATO making any future French aggressions unlikely, and no longer has even its own currency, the franc being retired in 2002 for EU notes. The increasing paradox of the modern world order is epitomized by France – the habitual aggressor of centuries – its expensive destructive forces are of limited use and the concept of national sovereignty is getting soft around the edges (like a cookie in milk). France is bound to Germany in the EU by their shared historical shame of the 19th and 20th centuries.

- ✓ “Both the rewards and penalties were fabulous. The most deadly weapon discovered since gunpowder, atomic energy was also the most wonderful new source of power since steam and electricity. Where gunpowder had never known more than a limited industrial use, atomic energy held forth the promise of operating ocean liners within a few years, or supplying heat for a city as large as Seattle.” – Lynn Montross, War Through the Ages (2nd Ed. (1946)), p. 952.
 - This text does not appear in the 3rd Edition published in 1960, whose end was extensively rewritten to cover the end of WWII, the beginning of the Cold War and the Korean War. Assuming that Lynn Montross did not live in an intellectual vacuum, this text is valuable as an artifact of the early Atomic Age intellectuals.
 - By 1960, the optimism of a brighter post-WWII world had faded to black. Thus, this text was written out of the 3rd Edition. There are still no nuclear powered ocean liners to my knowledge, but there were soon nuclear powered submarines (USS Nautilus, 1958) and aircraft carriers (USS Enterprise, 1962), that is, nuclear powered warships. No sober person was surprised.
- Humanity Cometh: Sovereignty is “the *monopoly of the legitimate use of physical force within a given territory*” (Max Weber). See *The Earthly Entanglement*, 2 Government Titles, p. 586, *supra*. The development of sovereignty in early human civilization is intricately and inseparably woven with tribal warriors, their leaders, and their religions and tales. At some point, police forces developed and diverged from warriors, so that each could do certain tasks better, but they share the same brew. Activation of the Combat Power in GGDM – and all

other activations in support of it, all around the circle of civilization – is the most basic expression of sovereignty, either to preserve or extend it.

“Along with improved ease of use, the bow offered the advantage that the bulk of elastic energy is stored in the throwing device, rather than the projectile; arrow shafts can therefore be much smaller, and have looser tolerances for spring constant and weight distribution than atlatl darts. This allowed for more forgiving flint knapping: dart heads designed for a particular spear thrower tend to differ in mass by only a few percent.”

– Wikipedia article, “Atlatl,” captured June 30, 2018

Day Million: Day Million will be about the 265th Day of the year 2739 C.E. or maybe it’s the 265th Day of 2738 B.C.E. depending on which direction you are counting? Between those dates are 2 million days of human history.

Probably the first weapon used in combat is the stone.

- ✓ Would it have made sense if the hominid waterhole fight scene in the opening of 2001: A Space Odyssey involved rock throwing instead of a club? Or in addition to the club? Chimps throw stones at trees.
- ✓ In 2016, wild Capuchin monkeys were observed chipping stone and creating sharp, jagged flakes, however, the monkeys were not using these to make tools, rather, they consumed the quartz dust created by the rock-hammering activity. Archeologists have long thought chipping stone was an early human toolmaking activity, associated with hunting cultures. Eva Botkin-Kowacki, “Monkeys are making stone tools thought to be unique to humans,” The Christian Science Monitor, October 19, 2016.

Our best guess is that the sling, made from the hides and/or insides of animals, which propelled the stone to previously heretofore unknown velocities, was invented around 30,000 B.C.

- ✓ In 1935, child actress Shirley Temple reputedly hit First Lady Eleanor Roosevelt sharply in the behind with a stone from a sling shot she hid in her purse while at a White House cookout with her mother.

At about the same time was invented the ingenious spear-thrower (or “Atlatl”) which was able to propel a spear with speed and accuracy. The Aztecs used atlatls against the Spanish. Iron Age Europeans added a strap to give the spear a spin and range. Both of these weapons were useful both for food procurement and fighting.

- ✓ Imagine the difference in the Anglo-Zulu wars if the Zulu army had major contingents of expert atlatls, slingers and bowman to follow behind and around the flanks of their frontal wave assaults against the English at Rourke’s Rift and other engagements? The English soldiers were not wearing any armor.

Approximately 10,000 years after the sling, someone had the idea of propelling a small spear with great speed and accuracy by use of a bowed piece of wood and a string, attached to both ends, pulled back to provide the force. We know that humans had the bow and arrow around 16,000 B.C. (or at least by the end of the last Ice Age, 10,000 B.C.⁴), the oldest evidence of archery, dated 13,000 years ago, was found in Hamburg, the oldest remnants of bows, dated 8,000

years ago, were found in Denmark and cave paintings found at Vilafranca, Castellón, Spain show humans hunting with bows. Ötzi the Iceman, the name given to the well-preserved remains of a 30-45 y/o male who died 5,100 to 5,400 years ago in Italy, was slain by an arrow in the back.

- ✓ This is not to suggest in any way that the Europeans invented the bow. An article in Smithsonian (Erin Wayman, “Early Bow and Arrows Offer Insight Into Origins of Human Intellect,” November 7, 2012) suggests that stone blades found in South Africa, dated to 71,000 years ago, *may be* early arrow heads or spear thrower points. The one-inch silcrete stone blades were heated over a fire and then chipped to sharp points. To be clear, however, no one has found any bows from that time nor are there cave paintings from the period in the area.

Long before the invention of the sling or the bow, or metals, by approximately 60,000 B.C. at least, humans began practicing ritualized burial of the deceased, with flowers, arrangements of objects, personal possessions of the deceased, and perhaps even an extraordinary organized Neanderthal family burial plot, found at La Ferrassie, France.

- ✓ “An important innovation of the Middle Paleolithic is deliberate burial, often with indications of funerary ritual. Deliberate burials are common, as we have seen, at La Chapelle, La Ferrassie, Shanidar, and Teshik-Tash, and there are many others. At Teshik-Tash, we find an interesting ring of goat horns surrounding a child’s grave, an arrangement that would certainly seem to indicate ritualism of some sort. Shanidar IV was buried with flowers, an act which may or may not suggest ritual, but which certainly does suggest a special attitude toward death. A remarkable burial occurs at the La Ferrassie rock shelter perhaps as much as 60,000 years ago. It looks like a family cemetery; the presumed parents are buried head to head and four children are interred neatly nearby. A short distance beyond, a small mound contains the bones of a newly born infant, and bit further under a triangular stone is the grave of a six year old child.” – Jurmain, Nelson & Turnbaugh, Understanding Physical Anthropology and Archeology, 3rd Ed., 1987, p. 437.

Contemplation of death, followed closely by hunting, seasons, and our own mortality, were probably the first catalyst for abstract thinking among our distant ancestors. Almost all of the paintings and objects found from that period relate to those four subjects. As of today, the meaning of death and our own mortality remain the major catalyst of abstract human thought, the first encounters with death and mortality remain the key events in every child’s life, and all abstract human thought, in all its forms, can be traced, in some winding way, ultimately to thoughts of death and mortality (and the passing of seasons).

Most or all of the weapons used in early warfare were either hunting or farming implements. It is probable that over a period of time, the development of the spear diverged into two classes of spears, the war spear and the lighter hunting/throwing spear. However, the true breakthrough in weaponry development came when someone introduced the *metal* club attached to a wooden or wood and leather wrapped handle. The metal club eventually developed a thrusting point like a spear, and flattened out across the middle, and developed one or two long sharp edges; alternatively, many argue the sword developed from the dagger. With the sword, a man could lop off the tip of his enemy’s spear and then close on his now helpless opponent, especially when the spearmen were huddled in close formation with little room to maneuver or escape.

The sword was introduced to warfare, around 2,000 B.C.;⁵ the Assyrians also organized the first true ‘war-state’ with a top-heavy state and culture completely dedicated to war, conquest, and exploitation, and were probably the first to extensively use iron chariots. While one can hunt with a sword, the sword is not particularly good or efficient for hunting, fishing, or farming; the sword is a tool mainly efficient for one use: killing people. The sword, which became the universal symbol of military might and kings, was the first true weapon of war and represented a dedication to war. The sword became the symbol of war.

- ✓ Swords and ploughshares are well acquainted with each other, since Biblical times, ploughshares have been beaten into swords and swords have been turned into ploughshares. Metal can only take so much stress!

By approximately 2,000 A.D., humans were fighting vast interstellar wars with an amazing array of weapons and capabilities. We know from recovered films – a type of moving cave painting viewed against a wall in dark, enclosed places – that battles were fought at places such as Endor (in 1983), Proxima 3 and Coriana 6 (both in 1997), New Caprica (in 2006), Witchhead Nebula (in 2000), and Wolf 359 (in 1990) and of the adventures of the famed starship, *Galaxy Quest*. Curiously, the sword, most assuredly an anachronism by then, apparently continued in use, as shown in the films “Banner of the Stars” and “Crest of the Stars” found recently at an archeological excavation on Mars, and in the Star Wars historical documentaries found in The Satan Pit, where it had apparently developed into something called a “light saber” in which the metal of the original sword was replaced by a glowing, colored blade of light called “the force.”☺

- ✓ My attitude toward war, expressed through GGDM, is in *summus*, ‘it happens, it’s sad and devastating to generations, it is somehow necessary (just like stupid people, if it weren’t for stupid people, half of us wouldn’t have jobs) and much of the progress of civilization to this point has been the direct result of war, conflict, and migration in innumerable and emergent ways, even as we decry it, ‘change cannot occur without consequences.’ I think that my view, the sum of all of the debates and reading of my youth, and my military experience, is generally the same position as that of most of the late Cold War cohort. I see it reflected for example in the writings of Joseph Tainter (e.g., collapse of complex societies) and Edward Soja (e.g., spatial justice, the polis), who are both writing in their own way about conflict of civilizations.
- **Thank God for the Bomb:** Everyone has great ideas that if enough people listened to them, it would change the world. Hey, let’s make the world better by getting rid of nuclear weapons! It was the great cry of the Cold War. Are you sure? Was the world a better place before nuclear weapons? *Do you remember how we got there?*

Though it was not the main point of the story, the authors of “Duet” (Epic Illustrated, Vol. 1, No. 27, December 1984) understood that side consequence. In the story, aliens destroyed Mars as a demonstration of their power, and forced all of the Earth nations to get rid of their nuclear weapons without interfering otherwise (see Metalaw discussion, Mephisto’s Marriage Counseling, 3 Diplomacy, p. 1135, *infra*); at the end of the story, in a world free of nuclear weapons, the main character (a subway bum) was drafted into the military and sent off to fight in an oil war against the Soviet Union. Has the world been made demonstratively better by the ideas of Jesus, Confucius, Buddha, or Mohammed? The jury is hung. The best we can offer is that it is different than it was or would have been, but we are not sure how it would have been otherwise.

- ✓ “If that’s the only thing that’s stopping war, then thank god for the Bomb.” – Ozzy Osbourne, “Thank God for the Bomb” (1986).
 - The argument must have been out there in the late 70s probably, because “Duet” in Epic Illustrated – a story making a similar point – was published two years before Ozzy’s “Thank God for the Bomb.” Cognitive history.

Not all great ideas have this dramatic, intractable character. Quitting smoking on a personal level is a great idea that probably has few drawbacks in the long term. But the distinction must be made in legally banning sale, transport, possession, and manufacture of all tobacco products – there are reasons why it hasn’t happened beyond the tobacco lobby’s efforts – who might echo the question above: was the world a better place before tobacco?⁶ Part of the problem is the history of the alcohol Prohibition (see Flying the Banner, 4 Government Titles, p. 632, *supra*) and part of the reason is that, compared to other problems, such as opioids and addiction to other recreational substances *that are actually illegal*, tobacco use is the lesser problem (the whac-a-mole problem, 4 Culture, p. 404, *supra*). So that war has been waged, somewhat successfully, by convincing individuals to stop smoking or never start, and by removing smoking from public buildings, but it’s a goal like zero inflation and zero unemployment – smoke free society will probably never happen.

“‘Are we all crazy?’ the Agriculture Minister asked. ‘Do we think we can gamble with atomic arms like so many firecrackers?’”

“‘Comrade Defense Minister, you have led us to the brink of destruction,’ Bromkovskiy said. ‘Now you wish us to leap in after you!’”

– Tom Clancy, Red Storm Rising (1986)

Little Willie Won’t Go Home: When humans let the nuclear genie out of the bottle, we came close up against the mind-numbing scale of the universe; humans can no more *grok* the power of a nuclear weapon than the distance to Alpha Centauri. That genie will not go home.

- ✓ “The big bang, took and shook the world, Shot down the rising sun, The end was begun, it would hit everyone, When the chain reaction was done, The big shots, try to hold it back, Fools try to wish it away, The hopeful depend on a world without end, Whatever the hopeless may say.” – Rush, “Manhattan Project” (1985).

Dawning of Horror: The essence of the true nuclear war movie (e.g., The Day After (1983), Threads (1984), Testament (1983), By Dawn’s Early Light (1990)) is the psychological tension and helplessness of being caught up in a catastrophic runaway situation that we know is wrong and is madness, that we know we caused and could have avoided, like a disastrous high speed drunk driving, life altering car wreck stretched into slow motion over two hours (with thankful commercial breaks). I do not prefer to watch such movies now, because I know how they work, but I wish the younger generation would watch them (they won’t), as this is how the world of today was made by what didn’t happen in 1983.⁷

The cinematic treatment of global thermonuclear war is a history of the full horror of the concept dawning into the public consciousness. Compare the movie Atomic Attack (1954) to movies made 25 or 30 years later (e.g., The Day After, Threads, etc.). Atomic Attack (1954) is very naïve and is considered borderline whitewash propaganda in the early Cold War minimizing the

consequences of thermonuclear war (at a time when the U.S. government thought they were behind the Soviets in both the space race and nuclear missiles). Ten years later in movies such as *The Time Travelers* (1964) or *The Twilight Zone* episode “The Old Man in the Cave” (1963), nuclear apocalypse was referred to as devastating and catastrophic in a sort of distant past-tense manner, while by *Damnation Alley* (1977) and into the 1980s, global thermonuclear war had evolved in television movies into immediate personal horror in addition to being the end of civilization (infrastructure, civil authority) and possibly the end of humanity.

- ✓ The essence of the Cold War zeitgeist is the dawning realization that we were living on the edge of a manmade historical accident to tip us into the abyss. We still are. Nuclear weapons aside, do you think we can handle a global pandemic and/or rising seas from manmade climate change and massive coastal population displacement? In the Black Death people died so fast they could not bury or care for them properly.

The indie film *Day the World Ended* (1955, a year after *Atomic Attack*) is more ‘realistic’ but is mostly a creature feature resulting from nuclear war, while Stanley Kramer’s highly-praised film (even by scientists) *On the Beach* (1959) is a brutally grim and personal story about Australians and a U.S. Navy submarine crew in the aftermath of global thermonuclear war, foreshadowing the coming 1980s movies. *On the Beach* doesn’t show the actual nuclear war, but rather, the dread of spreading radiation and collapse of global civilization (foreshadowing *Mad Max*).

However, *On the Beach* (1959), the first realistic treatment of the subject, adds mass-suicide of surviving populations when the radiation reaches Australia.⁸ The 1959 movie, listed on IMDB with a runtime of 2 hours and 14 minutes, was significant enough that it was remade into a well-received television mini-series with an added hour of runtime in 2000. That is, *after* the end of the Cold War, whereas other Cold War nuclear apocalypse movies have not been reprised as of 2019 – does anyone expect to see *Threads* or *The Day After* remade? Those were not bad movies, but the producers took a risk: 2000 (after the Y2K scare) was probably the last chance to get something like that on the screen without having to add future evil robots or an alien invasion.

- ✓ “There’s been a 70% radiation spillage factor at high altitudes across the equator. It’s coming south. I got the radio operator in Singapore, then she went home to die.” [The Captain asks how long they have?] “According to Australian naval command in Melbourne, a matter of months, Sir.” – *On the Beach* (remake, mini-series, 2000).⁹

Even the 1980s films never went so far as to mention or endorse government-sanctioned mass-suicide and rarely discussed the suicide in post-apocalyptic effects;¹⁰ everyone was heroically supposed to be trying to survive and return to normalcy. I chuckle at the thought of the government of Australia in 1959 vehemently denying that it ever had such a plan – no warehouses full of suicide pills¹¹ – and pointing out that it was just a movie, that the movie makers had no special knowledge of government planning for global thermonuclear catastrophe. But under those circumstances, who knows what anyone would do in the aftermath of the ultimate absurdity?

- Enemy Mine: Suspicion of others is an act of projection and abstraction by sapient. In one sense, as when solving a crime or mystery, suspicion may be a projection or deduction from facts, but often lacking the final fact or proof necessary to identify the perpetrator or solve the mystery. In another, more common sense, it is a projection of what we would do if we were in the other’s position; the two senses are not the same, no one thinks that a detective who suspects a perpetrator, would do what the perp did in the same circumstances.

Yet the two senses come from the same process and involve facts, beliefs and emotions, both rational and irrational, and this is what is so confusing about our language and mental states. Would you do the same as a cow would do or do you think a cow would do the same thing you would do if given a chance?¹² It depends on the circumstances, sometimes humans and cows do the same (e.g., eat vegetation), but most of the time they don't (e.g., eat cows). In an interstellar setting would it be appropriate to suspect that sapient, technological aliens would do something because we would do the same?¹³

- ✓ The nuclear preparedness command post exercise called Able Archer in 1983 is a prime example. In principle, it probably sounded like a great multi-national exercise to align all of the NATO powers in the same procedures and to train top leaders in the decision-making process. Except that no one anticipated that the Soviets would see it as a ruse for a preemptive nuclear strike on the Soviet Union – probably because the Soviets thought that is *what they would do in our place*, they had probably contemplated that very ruse. As a result, the Soviet forces went to high alert, the period of September to November 1983 was the closest that the world came to nuclear war since the Cuban Missile Crisis of 1962. The Soviets realized later it was a training exercise, NATO realized how close they had come to a Soviet preemptive strike.
 - ✓ In the movie *Paths of Glory* (1957), General Georges Broulard assumed that Colonel Dax, a famous criminal defense attorney, defended the accused and exposed the incompetence and misdeeds of General Mireau in order to secure a promotion and take General Mireau's job. He assumed this was all part of Colonel Dax's ultimate plan *because that is what he would do*, and was stunned and unable to comprehend that Colonel Dax actually cared about his troops and the fate of the accused.
 - ✓ “We can't go on together, With suspicious minds (suspicious minds); And we can't build our dreams, On suspicious minds.” – Elvis Presley, “Suspicious Minds” (1969).
- Killer of Giants: Dehumanization in war – both of the enemy and of the combatants and civilians on both sides – is a well-known concept and staple of modern literature, documentaries, and frontline journalism.
- ✓ [Interview in German with English voice over translation] “The British were always astonished that we did not look different to them. This was the funniest thing about the whole situation. They said, for heaven's sake, you've all got English faces. Of course, what were we supposed to look like?” – Lt. Josef Klein, 3rd Paratroop Regiment, Monte Cassino: *The Soldier's Story* (documentary, 2018).
 - ✓ [Interview in German with English voice over translation] “I think that the war in the south against the English and the American units was, I would say, not really hate. He was the enemy. Everyone had to do their duty. He was on his side of the front, we were on our side. And I think the suffering was the same. Because of the very strange situation in this part of the battlefield, we had somehow the feeling they [the English soldiers] were like comrades because they went through the same things.” – Pvt. Rudolf Valentin, 3rd Paratroop Regiment. *Id.*
 - ✓ [Interview] [background scene, enemy soldiers exchanging cigarettes during an armistice to collect the wounded] “Part of the whole curious experience of being in combat was that you could have an intimate relationship with your enemies under certain circumstances, and there is another time you could quite cheerfully shoot them. It

was a conundrum because the human side kept coming through.” – Maj. Dennis Beckett, 1st/4th Essex Battalion. *Id.*

What could be easier to ‘dehumanize’ than extraterrestrials, especially if they pose an existential threat? The standard science-fiction solution is to ‘humanize’ them through the story, to make the audience recognize the aliens as mortal and moral persons, e.g., *Enemy Mine* (1985) a box office bomb (which I think I saw first at the Camp Foster theatre in Okinawa in 1987) is such a movie (a sci-fi remake of *Hell In the Pacific* (1968), a previous box office bomb¹⁴) that went on to become a major box office success in the former Soviet Union (according to Wikipedia). See further discussion in *Alien Persons*, 2 Diplomacy, p. 1110, *infra*.

- ✓ “If none of us believe in war, then tell me what the weapons’ for?” – Ozzy Osbourne, “Killer of Giants” (1986).
- ✓ “Mother please forgive them, for they know not what they do ... I had a vision, I saw the world burn, and the seas had turned red; the sky had fallen, the final curtain, in the land of the dead.” – Ozzy Osbourne, “Revelations (Mother Earth)” (1980).

“The wealth and scientific ingenuity of our civilization was being squandered on a runaway arms race. [The nuclear powers] employed half the world scientists and infested the world with 50,000 nuclear weapons.”

– Ann Druyan, introduction to the Collector’s Edition of *Cosmos* ¹⁵

“The nuclear arms race is like two sworn enemies standing waist deep in gasoline, one with three matches, the other with five.” – Carl Sagan ¹⁶

Evolutionary Arms Race: However, Douglas Adams described evolution as an arms race:

- ✓ “For example the race between the Amazonian manatee and a particular type of reed that it eats. The more of the reed the manatee eats, the more the reed develops silica in its cells to attack the teeth of the manatee and the more silica in the reed, the more manatee’s teeth get bigger and stronger. One side does one thing and the other counters it. As we know, throughout evolution and history arms races are something that drive evolution in the most powerful ways and in the world of ideas you can see similar kinds of things happening.” – Douglas Adams, “Is there an Artificial God?” speech at Digital Biota 2, Cambridge U.K., September 1998.

So was (is) the arms race part of human evolution or a sad parody of evolution?

[Interview] “We were turning out bombs by the thousands. The United States by the height of the Cold War had some 40,000 hydrogen, uranium and plutonium weapons in its storehouses and the Soviet Union which always cranked out more than it needed, had some 75,000, enough to destroy the world many times over. I’m happy to say that we are now down to about a total in the world of about 13,000 [in 2015], still enough to destroy the world many times over, but not as many times as in the 1980s.”

– Richard Rhodes (author of [The Making of the Atomic Bomb](#) (1986)), *The Half-Life of Genius: Physicist Raemer Schreiber* (2018)

The Combat Power: The Combat Power may be activated for the following four purposes:

1. Combat Movement,
2. Initiate Combat,
3. Combat Alert,
4. Seize Initiative.

The general purpose of activating the Combat Power is to *initiate combat* which are represented by the first three purposes of the Combat Power Activation, above. Activation of the Combat Power for the purpose of Combat Movement requires two Acts and one Scene which must be placed on the *star* on the Public Space where the movement begins. Activation of the Combat Power for the purpose of Initiate Combat or Combat Alert requires one Act and one Scene on the *star* of the system. Activation of the Combat Power for the purpose of Seize the Initiative requires one Scene on the *star* of the system where the combat is ongoing.

- ✓ It would be problematic to require the attacker to have a Scene on the target planet of a Colony or drop-in Ground Combat to Initiate Combat, esp. after a Short Movement.
- ✓ Units involved in an ongoing combat *cannot do anything* during the Regular Turns (will not obey Power Activations) until they either retreat or the combat ends.

Warships: A warship is defined in GGDM as a starship or system boat capable of initiating offensive combat in either system space or in orbital space over a planet (but not at FTL or in interstellar space; Colony Combat against Ground Bases is initiated from orbit). Specifically, they include Era Warships (see 2 Combat, p. 951, *infra*), Carrier Ships (see 1 Carriers & Fighters, p. 1049, *infra*) and armed system boats, with or without a Tender starship to transport them. See System Boats, 3 Construction, p. 677, A Hot Dinner, 3 Movement, p. 863, *supra* and Carrier Operations, 1 Carriers & Fighters, p. 1050, *infra*, for discussion of Tender starships.

- ✓ Colony-based Fighter Complements effectively make the colony an armed system boat for the purposes of *initiating offensive combat*.

A Log Ship is not a warship (at least initially) and thus must be addressed separately in the Combat Movement rules below. Carrier starships are capable of initiating combat without a Fighter Component (i.e. Carrier direct fire) and are thus a warship, Fighter Components, whether on a Carrier or Colony, can initiate combat but are not starships (at least initially). This is a bright dividing line in GGDM: Each ship or boat (unit) is either capable of initiating combat or not, there is no middle space, thus is a warship defined; conversely, all Defense Bases are not capable of initiating combat, such that the inability to initiate combat (as well as the inability to initiate movement, at least initially) is congruent with the definition of a Defense Base.

Tender starships – which may or may not be offensively armed, should be considered warships if they are transporting armed system boats – what Traveller RPG called Battle Riders – which may initiate combat upon arrival. Otherwise, the GGDM rules provide no means by which a military Tender can move to a system and deploy the system boats to initiate combat on arrival.

- ✓ Tender Ships violate the Law of Excluded Middle (or Third) in the GGDM rules as they fit neither the definition of a warship (*ut supra*) nor are they Log Ships, but must be able to initiate Combat Movement if carrying armed system boats.

Alternatively, Tender starships could function as Log Ships beyond the normal OSL, for their system boats (a system that would need one or more successful Patents) making them Log Ships for the purpose of Combat Movement (*ut infra*). See A Hot Dinner, 3 Movement, p. 863, *supra*.

- ✓ “Not in the mood? Moods are things for cattle and love play, not fighting!” – Gurney Halleck, *Dune* (1984).

“The English-speaking peoples took no joy in finding themselves the most powerful military force on earth in the autumn of 1945. Comprising only a fraction of the globe’s inhabitants, they had built up armies, navies and air fleets more mighty than all the others. Had they been obsessed with a lust for conquest in 1945, it is a fair speculation that they possessed the means. Far from having any such ambition, both Britain and the United States were uneasy under the new burden of responsibility. The awful secret of Hiroshima weighed heavily, for the public did not need to be reminded that today’s military asset might become tomorrow’s liability. Any citizen able to add two and two could perceive that the atomic bomb, plus jet and rocket propulsion, added up to future long-distance missiles which could conceivably shatter or even conquer a strong nation in a few hours.”

– Lynn Montross, *War Through the Ages* (3rd Ed., 1960), p. 964

World Conquest: What a striking thought, given the conditions of the world in August 1945.¹⁷ Though it would have been fanciful to think that the Allies could have pushed the Russians out of Germany and Poland in 1945 (i.e. Operation Unthinkable), the rest of the world was wide open, the Soviets had no comparable naval forces and neither did anyone else. How many peoples have turned their back on such an opportunity for conquest? What do you think the Romans would have done? Why Not? The difference is clearly in the comparison of the sociopolitical culture of the two times, the two civilizations. The question is, is the ‘pass’ of 1945 a sign of human maturation, or just circumstances at play?

“Never, never, never believe any war will be smooth and easy, or that anyone who embarks on the strange voyage can measure the tides and hurricanes he will encounter. The statesman who yields to war fever must realize that once the signal is given, he is no longer the master of policy but the slave of unforeseeable and uncontrollable events.” – Winston Churchill

Move Out!: Combat Movement is the special movement for:

- 1) Warships and/or Log Ships,
- 2) When moving from any system to any destination system that does not currently have a supporting colony,¹⁸ **and/or**
- 3) Where the warship’s owner desires to initiate combat upon arrival.

Activation of the Combat Power for the purpose of Combat Movement allows as many warships and/or Log Ships to depart from the origin system to any and as many destination systems – either unsupported (condition 2, above) or supported (condition 3 includes movement to a supported system) – as desired. Combat Movement is required when sending warships and/or Log Ships to an unexplored system (see Send the Enterprise!, 3 Expansion, p. 909, *supra*) or when sending Log Ships by themselves to an unsupported system (conditions 1) and 2) above).

There are only two conditions precedent necessary for Combat Movement, the “and/or” means that either **(1 and 2)** apply or **(1 and 3)** apply. Those two sets cover all possible situations for moving warships. Obviously, 3 can never apply to Log Ships moving by themselves.

- ✓ Whenever the Combat Power is activated for the purpose of Combat Movement, each ship designated must be checked to see if they obey the Combat Power activation. Like Movement (see Engines Offline, 1 Movement, p. 839, *supra*), if there is a supporting colony in the system, a *second check* is made for any ship that failed to obey the Power Activation. Any ship that fails to obey the Power Activation will be left behind. Enlightenment could be applied to these obedience rolls if the target unit (or Supporting Colony) has an active Epistemological Constructural Element (see Skool Tyme, 2 Constructural Elements, p. 190, *supra*).

If warships or Log Ships are moving to a system with a supporting colony, and do not intend to initiate combat upon arrival, they can and should use the Movement Power instead, which only costs one Act and one Scene (see Ad Astra, 1 Movement, p. 839, *supra*). If they are moving to a destination system with a supporting colony and intend or anticipate engaging in combat upon arrival, they must use the Combat Movement activation. There is no requirement that the anticipated enemy forces, or any enemy forces, be present in the destination system, or known, when Combat Movement is initiated; such Combat Movements may be precautionary.

- Space!: Space is very big in a three-dimensional absolutely-cold vacuum way. This leads to four basic principles of space combat. First, no one can be forced to initiate combat. Second, except when defending planets or any other important point in space, no one can be forced to defend in a combat (because space is big and three dimensional). Third, combat only occurs in starsystems, combat does not occur between ships traveling at FTL speeds between stars (or wherever they happen to be while moving between stars). And last, no one can be barred from entering a starsystem, the only way to stop someone from entering a starsystem or doing anything is to destroy them or provide a credible threat of destruction.
 - ✓ Ships *en route* will arrive in the star system at the end of their flight, see The FTL Missile, 2 Movement, p. 849, *supra*, that is, in GGDM, ships are assumed to be incapable of avoiding arrival in the destination starsystem once interstellar movement commences. Thus, the owner would need to be dissuaded from initiating the interstellar movement. Just as the only way for a bug to avoid being eaten by a bird is to not be present at that time and place. Bugs have no other defenses against birds.
- Attack!: Combat Movement only gives the moving warships the option of initiating combat upon arrival at the destination; the warships are never *required* to initiate combat upon arrival and Combat is never automatically initiated. Warships arriving in a system via Combat Movement, may either initiate a Ship Combat against any opposing ships (of any type) currently in the system, or if there are no opposing warships present (or they have retreated already), may initiate combat against any and all unconquered **alien colonies** in the system. As *each warship may only initiate one combat per turn*, initiating combats against multiple enemy colonies upon arrival will require dividing the force (even if some of the targets are undefended, you must send a warship to convince them to surrender).
 - ✓ “On July 2 the Finns intercepted a radio message that the 63rd Guards Rifle Division and 30th Armored Brigade were about to launch an attack on July 3 at 0400 hours. The following morning, *two minutes before the supposed attack*, 40 Finnish and 40

German bombers bombed the Soviet troops, and 250 guns fired a total of 4,000 artillery shells into the area of the Soviets.” – from Wikipedia article, “Battle of Tali-Ihantala” (emphasis added).

- **Defend!:** Participation in combat, except for colony Defense Bases and colony-based Fighters or armed System Boats defending a colony, is always ‘voluntary.’ Units will always defend themselves if attacked, regardless of whether they have initiated combat in the current Turn Cycle, or how many combats they have fought recently, or whether or not they are on Combat Alert. Activation of the Combat Power is not required to defend in combat, and no Acts or Scenes are used to simply defend in combat. Certain defenders, namely starships and some System Boats and perhaps Fighters, may always retreat at the end of the first round of combat, as described later. Retreating the warships defending a system, may, however, expose any colonies in the system to subsequent attack.

- ✓ “The outer fortresses have fired. These ships enter the fiord darkened. They are warships, damned right we shoot at them! Ready for action!” – Col. Eriksen, *The King’s Choice* (2016), from English subtitles.

- **Run Away!:** Warships whose owners decline to initiate combat at the end of a Combat Movement lose the opportunity. Upon arrival in the destination system, the owners of the warships will be informed within their turn results of what they see and anyone in the destination system will be informed of the arrival of the warships (see *One-Way Mirror*, 2 Information, p. 1340, *infra*).

The owners of the warships have one day (24 hours) after their ships arrive (i.e. after their Regular Turn is processed) to initiate one or more combats by submitting Combat Orders for the first Combat Round. Failure to timely do so is considered a ‘pass’ and the opportunity to initiate combat from the Combat Movement is forever lost.

- **Meteora!:** Ships arriving in the destination system by Combat Movement *may* automatically join any ongoing combat in the destination system. If they join the defense of a colony, on the second Combat Round after they join forces, the Colony Combat is ended and the remaining combat is fought as a Ship Combat in system space, as those attacking the colony will seek to escape being caught between the defenses and approaching warships. This is not considered a *retreat*, unless the attackers actually issue retreat orders to their ships.¹⁹

“There are two rules of war that have not yet been invalidated by the new world order. The first rule is that the belligerent nation must be fairly sure that its actions will make things better; the second rule is that the belligerent nation must be more or less certain that its actions won’t make things worse.”

– Martin Amis, “The Palace of the End,” *The Guardian*, March 4, 2003

Initiate Combat: Activation of the Combat Power for the purpose of Initiate Combat requires one Act and one Scene on the star on the Public Space where the combat is initiated (one reason why you might use Combat Movement instead in some situations). Activation of the Combat Power for the purpose of Initiate Combat allows all friendly units in the same starsystem:

- 1) That are capable of initiating combat,
- 2) That are not currently involved in a combat, and

- 3) That *began* the Regular Turn in the starsystem (possibly arriving by Short Movement on the previous turn),

...to initiate combat against any number of opposing ships and/or colonies as appropriate. The side initiating combat becomes the attacker and the other(s), the defender(s) in the combat.

Activation of the Combat Power for the purpose of Initiate Combat requires one Scene on the star of the system where the Combat is to be initiated. Thus, the star must already be on the Public Space in order to place a Scene on it, and that means that either a ship or a sovereign colony must be in the target system. This is a place where Scene Snitching can really ‘hurt.’ ☺

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- ✓ Except for Pacification Combat, *each unit* designated to Initiate Combat must check to see if they obey the Power Activation. The Supporting Colony(s) second check rule applies as described in Engines Offline, 1 Movement, p. 839, *supra*. If the units involved are Ground Units attacking another colony on the same planet, they check based on the Constructural Elements of their colony. If the Ground Units are landing on the planet to initiate combat, they check based on the Constructural Elements of their Transport Ship (see Lift & Separate, *et seq.*, 4 Combat, p. 987, *infra*). Units that fail to obey the Initiate Combat action will not fire in the first Combat Round and are not part of the combat initially; but likely can be joined later (see Those Who Stand Looking, 3 Combat, p. 973, *supra*) into the ongoing combat.
- Short Shot: Ships using Short Movement (see Space Hop, 2 Movement, p. 850, *supra*) arrive in the same Regular Turn as they departed, and thus, would be in the system at the *beginning* of the next Regular Turn. So it is possible to combine Short Movement one Regular Turn with Initiate Combat on the next Regular Turn *as long as the destination system is not an unsupported system* (requiring Combat Movement instead) and if the moving ships don’t want to initiate combat upon arrival. Remember to pre-place a Scene on the star of the system.
 - ✓ This does not provide any real savings in Acts and Scenes, as Short Movement requires one Act and one Scene on the origin, and Initiate Combat requires one Act and one Scene on the system where combat is initiated, as compared to Combat Movement requiring two Acts and one Scene on the origin. It would also require two Power Activations. It might be useful in limited circumstances where the position has not previously deployed Acts and Scenes that would allow a Combat Movement, or for diplomatic reasons.
- Uncles Sam and Albert Want You ☞: *Friendly units* that are:
 - 1) Capable of initiating combat,
 - 2) Not currently engaged in combat, and
 - 3) In the system where combat is initiated by ships arriving by Combat Movement may automatically join that combat and do not need to separately Initiate Combat.

“The notion of a nuclear firebreak is based upon a major premise of current military thought: that a full-scale nuclear war, should one ever occur, would probably result from a conventional conflict that exploded out of control, prompting one side to use nuclear arms in a desperate bid to stave off defeat.

The only existing barrier to such escalation is a moral and psychological firebreak – the widely shared perception that nuclear weapons are different from all other weapons, and that their use could unleash a chain reaction of strikes and counterstrikes leading to total world destruction.

So long as this firebreak remains wide and secure, so long as the distinction between nuclear and conventional arms remains sharp and unambiguous, potential combatants will retain this incentive to stay on the non-nuclear side of the divide, no matter what their prospects are on the conventional battlefield.”

– Michael T. Klare, “Securing the Firebreak,” *World Policy Journal*, Spring, 1985, p. 229

DefCon 1: Activation of the Combat Power for the purpose of Combat Alert requires one Act and one Scene on the star of the system where the alert is placed. Combat Alert applies to all friendly forces, whether ships or colony defenses, in the system where the Alert has been placed.

A position which has placed a system where they are present on Combat Alert and has at least one suitable available combat unit may *initiate one combat between their position’s Regular Turns*. Available units are any friendly unit that is:

- 1) Capable of initiating combat,
- 2) Located in a system where a Combat Alert has been placed,
- 3) Not currently engaged in Combat, and
- 4) Able to engage in combat in that theatre or sphere (e.g., Ground Units cannot initiate combat against Ships, see *Keep Your Friends Close, Your Enemies Closer*, 3 Combat, p. 972, *infra*).

The side initiating combat becomes the attacker and the others, the defender(s) in the combat. The Scene is used by the Power Activation regardless of whether or not combat is initiated.

- ✓ Defense Bases do not benefit from Combat Alert, the reference to colony defenses is to armed System Boats, colony-based Fighter Components and Ground Units.
 - ✓ Combat Alert may be particularly useful in timing of Raid/Strike Combats, see 4 Carriers & Fighters, *infra*, either before or immediately after the target’s Regular Turn.
- **Nervous from the Service:** A Combat Alert expires at the beginning of the position’s next *turn period* (see *Law of Periods*, 2 *The Streams of Time*, p. 84, *supra*), not when Regular Turn processing occurs. Thus, to keep up a continuous Combat Alert, a position must submit their Actions at the earliest opportunity, and activate the Combat Power for that purpose every turn in the same or different systems, which will hamper the position in other ways.
- **Firebreak:** All of the sputtering in the media over the casual comments made by the POTUS and some lesser figures in Russian government, are all in the fear that careless words indicate a lack of understanding of and breakdown of the nuclear firebreak.

Non sequitur: There is a difference between Initiate Combat and Combat Alert. It’s all about timing. Initiate Combat begins a combat shortly after the position’s Regular Turn, whereas Combat Alert, running from the end of the position’s current turn to the beginning of the position’s next turn period, allows initiation of combat in the starsystem between turns. Because ships arriving by Combat Movement must decide to initiate combat within one day of their arrival, their decision may be preempted by Combat Alert in the destination system, making the prospective ‘defenders’ the ‘attackers’ and taking the decision for combat out of the other position’s hands. Combat Alert, unlike Initiate Combat, may *put off* the decision to

start a combat to see what happens, *to allow for diplomacy time*, time to build, or to wait for other position's ships to arrive in the system on their turns. Both activations cost the same.

- ✓ “It’s not really hard to fire guns, but it’s immensely hard to make the decision to fire.” – Col. Birger Eriksen, Norway (post-WWII investigation).
 - ✓ As discussed more fully in Freeze Frame, 2 Information, p. 1341, *infra*, Observation and Surveillance reports are only provided in the position’s Regular Turn results after the Regular Turn actions have been processed. They are a ‘snapshot’ of the situation at the end of the position’s Regular Turn processing. Thus, whether to initiate combat using a Combat Alert between Regular Turns depends heavily on information provided by other positions who may be present (i.e. informal diplomacy, see Greys Diplomacy, 1 Diplomacy, p. 1097, *infra*) and who have their Regular Turns processed before the Combat Alert expires. Naturally then, Combat Alert is most useful in a crowded system where many positions are present.
- **Jumping the Ditch:** There is no check to see if a system placed on Combat Alert disobeys the Power Activation. However, if the position subsequently chooses to initiate combat, the Combat Alert is effectively changed to an Initiate Combat, and all units designated to initiate the combat must check, as described above, to see if they obey the Initiate Combat.

“The essence of the complaints was that it let a dying generation off too easily – specifically, the generation that built and fought for the Third Reich. Crafting a story around the fates of five 20-year-old best friends from Berlin, none of whom is a Nazi, and one of whom is a Jew, is a convenient fiction, some said.

In truth, however, ‘Generation War’ is no more convenient than any number of American World War II dramas that do exactly the opposite and demonize all Germans by turning every one, without nuance, into a frothing-at-the-mouth stormtrooper. Isn’t making monsters out of people just as bad as trying to find the human heart that beats in the breast of the criminal?”

– Michael O’Sullivan, “‘Generation War’ movie review,” Washington Post, March 13, 2014

Generational War Cycle: The Guns of August, the Tanks of September, the Missiles of October. Something important happened during the Cuban Missile Crisis in October 1962 that has not been fully realized in what I have read. We broke the historical generational war cycle. The time between the end of WWI and WWII was just under 21 years.

- ✓ Montross titled the chapter about the beginning of World War II, “The Resumption in 1939” in his *magnum opus*, War Through the Ages (3rd Ed., 1960) reflecting the idea that WWII was simply a continuation of WWI with a new actor, Japan, added.

The time from the end of WWII to the Cuban Missile Crisis was just over 17 years. By backing away from the brink, both sides broke the generational cycle of industrial warfare that was (by all projections) going to doom or significantly damage a nascent global civilization.

Given another half century, the forces in play dissolved, diffused, the energy flowed away in other directions, our trajectory changed, our world survived, but not necessarily as a better place. The criticism of this might be that *two occurrences do not a cycle make* (similar to: “Three writers do not a generation make.” – Gregory Corso), but the world might not have survived a third or fourth occurrence to confirm that a cycle does exist! If you were on a planet and it suddenly

became cold, you nearly died, then it became warm again, then cold again and you survived perhaps a little better, you'd be justified in projecting and preparing for a third period of cold expected at a specific future time, based on two experiences. You wouldn't wait to find out.

Elizabeth Stephens: *Paul, did you build an atomic bomb?*

Paul Stephens: *Only a little one.*

Paul Stephens: *I never thought I'd say this to anybody, but I got to go get the atomic bomb out of the car.*

Dr. John Matthewson: *You people really live in your own world, don't you?*

Lt. Colonel Conroy: *Well, we don't have the luxury of living in yours.*

[Paul is sitting on the floor with the atomic bomb on his lap, he is surrounded by FBI snipers]

Dr. John Matthewson: *Now what do you say we take it all apart... before everybody goes crazy?*

Paul Stephens: *No, I'm sorry. I can't do that right now.*

Dr. John Matthewson: *This isn't accomplishing anything.*

Paul Stephens: *Sure, it is.*

Dr. John Matthewson: *What?*

Paul Stephens: *Deterrence.*

Dr. John Matthewson: *Deterrence?*

Paul Stephens: *Yeah, you know. Like when each side thinks... that the other guy is going to blow everybody up. It's called mutually assured destruction.*

Dr. John Matthewson: *Yeah, I know what it's called.*

Paul Stephens: *Well, it's working, isn't it?*

Dr. John Matthewson: *How do you mean?*

Paul Stephens: *I'm still alive, aren't I?*

Dr. John Matthewson: *And since you all like scenarios so much... I've got one for you. It's called a little game of chance. I'll bet you that I can turn this key... and blow us all to hell... even after you shoot me. And you're gonna have to shoot me, OK? Everybody's problems all solved... in one millionth of a second. Now... who wants to play?*

Lt. Colonel Conroy: *You mean I'm gonna die because some asshole didn't bring a pair of pliers?*

– The Manhattan Project (1986)

Endnotes.

¹ **Citation:** “Who else could top this list more convincingly than humans? They defeated the Borg. They fought the Klingons into submission. They sent the Dominion back where they came from. And all the while, they did it while insisting to their enemies that they were only interested in peace, exploration and a nice cup of tea (Earl Grey, hot). There isn't a quadrant in the galaxy that's pleased to see a human turn up. And if nothing else, the Mirror Universe first ('Mirror, Mirror,' TOS 2.10) shows us that humanity has the potential to conquer the galaxy if only they get riled enough. No wonder the Vulcans spent so long trying to keep us down. It's the only logical response when faced with a race with so much destructive potential.” *Id.*

² **Commentary:** This is the same problem anarchists have: For every evil imagined or assigned to the state, an equally evil condition is evident in the absence of the state. Anarchists don't need to be convinced that anarchy is better than the state, but the rest of us do, and anarchist violence tends to highlight the need for a state to maintain order, e.g., the attempted assassination of Henry Clay Frick in 1892 by anarchist leader Alexander Berkman.

- ✓ The problem with Anarchist movements is that it is very easy for the opposition to argue or construct an image that they are a threat to civilization. To the audience, it seems as though they want to throw everything away, they seem to criticize everything the audience knows and perhaps loves. We all want small changes to this or that, but few want to toss everything out and go back to the trees, or start over again.

³ Citation: "...the fact that in America, you and I would had to have worn fedoras and suits on a hot summer days. Thank god that's gone, but something else that left was the sense that you put speech in its Sunday best. All of us nowadays at least fake it to an extent, but we could have predicted that somebody would come along who really just didn't bother to do anything but talk, rather than speak, and even become President of the United States. I don't think that Trump is going to be last in that regard." – John McWhorter, MSNBC 11th Hour, September 15, 2017.

⁴ Citation: Jurmain, Nelson & Turnbaugh, Understanding Physical Anthropology and Archeology, 3rd Ed., 1987.

⁵ Citation: Dupuy & Dupuy, Encyclopedia of Military History (2nd Rev. Ed., 1986); Wikipedia article titled "Sword" puts the date at 1600 B.C.

- ✓ A March 11, 2020 video posted by Pete Kelly "BREAKING NEWS – 'Oldest Sword In The World' Discovered // Aslantepe // Bronze Age Weaponry," announced the discovery of a Bronze Age sword made about 3,000 B.C., possibly at Aslantepe, housed in a collection of medieval swords at a monastery in Venice. The Assyrians have long been credited with the early adoption, if not invention, of the sword, but the video notes that the Assyrians attacked Aslantepe in Turkey. However, focus on the earliest invention of the sword is in the area of Aslantepe which had some of the most advanced metallurgy of the time.

⁶ Commentary: The argument might be that we have simply traded one bad for another ill, probably people drink less alcohol now, maybe we eat better foods now, but we also smoke and do less physical labor as a civilization.

- ✓ "Every age, every culture, every custom and tradition has its own character, its own weakness and its own strength, it's beauties and ugliness; accepts certain sufferings as matters of course, puts up patiently with certain evils." – Hermann Hesse, Steppenwolf (1927) (see full feature quote, top 4 Culture, p. 404, *supra*).
- ✓ See also 'whac-a-mole' discussion. *Id.*

⁷ Commentary: My first nuclear war movie was shown in school. I remember it was deemed so controversial, so potentially disturbing that they sent home permission slips for parents to sign. My mother, the pacifist, gladly signed the slip (I may remember this as a rite of passage that I was old enough now); about half the class got out early that day or went to study hall, I don't remember. The movie I remember was a Japanese-made animation of the morning of the bombing of Hiroshima that showed people melting like ice, instead of the flash vaporization of later movies like the Day After. I think that it must have been in my 6th or 7th grade, I just don't remember where I was when I saw it. It certainly was before I saw any nuclear war movies on television, including Damnation Alley (1976, and Twilight's Last Gleaming, 1977) both of which I must have seen later on TV around 1981-83.

- ✓ I definitely did not see Damnation Alley in the theatres in 1977 (I didn't see anything in the theatres in 1977, I assure you), so I must have seen the network TV premier (altered, reedited) version in June 1983.

⁸ Citation: "Cyanide capsules are easy to make and reliably lethal. They have been used for murder, executions and suicides and as a trope in popular culture. Potassium cyanide is easy to obtain, store, transport, conceal and unobtrusively self-administer. Cyanide ends life by arresting cellular metabolism by preventing hemoglobin from transporting oxygen. Thus, it causes a form of chemical asphyxiation. The public imagination of military cyanide suicide capsules is informed by movies such as *Skyfall* (a James Bond movie that showed a malfunctioning tooth capsule) and *Get Smart* (that used a suicide pill for a gag line).

The history of the use of suicide capsules by the armed forces or intelligence agencies is murky but suggestive. Heinrich Himmler, a senior Nazi commander, used a cyanide capsule to commit suicide upon his arrest. Hermann Göring, another Nazi official, took cyanide shortly before he was to be executed at Nuremberg. A Flight Surgeon gave the pilot of the Enola Gay cyanide capsules to distribute to the crew in the event they crash-landed in Japan after dropping the atomic bomb on Hiroshima. Washington DC's spy museum displays CIA Cold War era eyeglasses containing a cyanide pellet. Concerns about cyanide gas accidentally escaping inside the cockpit or flight-suit of spy plane pilots led the CIA to develop a fish-based neurotoxin to be self-injected with a needle. Such a device was concealed in a coin given to CIA pilot Francis Gary Powers for his 1960 U2 spy flight over the Soviet Union. If captured, as he was, Powers had been instructed to cooperate while maintaining the dignity of his office. Although some criticized Powers for not taking his life, the turbulent high altitude destruction of his aircraft and prompt capture made it unlikely that he could have used the suicide device even if [he] had chosen to do so. ...

North Korean agents and Tamil Tigers have also been known to have and used cyanide capsules. The United States government denies that suicide pills are provided to soldiers faced with capture by ISIS." – Steven H. Miles, M.D., "Military Suicide Capsules and Medical Ethics," Bioethics.net, March 21, 2016 (emphasis in original).

1 Combat – The Come As You Are Party

⁹ Commentary: The scientific-sounding dialogue is kind of corny, but it gets the central point across and is critical to set the stage for the rest of the movie – that the radiation from the Northern Hemisphere war is spreading south.

¹⁰ Citation & Commentary: The opening scenes of *The Book of Eli* (2010), set decades after the nuclear holocaust, features discovery of an apparent isolated survivor suicide. A later scene also features human cannibalism.

- ✓ I enjoyed *The Book of Eli* (2010). It follows the usual post-apocalyptic formula – it is a fight between the good guys and the bad guys over who will control reemerging civilization (i.e. how are we going to avoid making the same mistakes again?) – but *The Book of Eli* is clever, creative within the genre framework, and restrained. Much of the movie is like a Western, the scene where the bad guy tries to shoot Eli and cannot kill him even at close range in daylight reminded me of the tub scene in *High Plains Drifter* (1973).

¹¹ Commentary: The population of Australia in 1959 appears to have been about 10 million; it was at 22 million in 2009. Source, ChartsBin (<http://chartsbin.com/view/eoo>), “Historical Population of Australia, 1788 to Future.”

¹² Commentary: A favorite Far Side comic, cows are in the house, the phone is ringing. One cow says, “Well there it goes again... And we just sit here without opposable thumbs.”

¹³ Commentary & Citation: “Perhaps they’d come upon another expanding civilization and encounter beings previously known only from their radio transmissions. Star wars are unlikely. One civilization certainly would be far more advanced than the other. It would be no contest.” – Carl Sagan, *Cosmos*, Episode 12 (see top of 4 Expansion, p. 920, *supra*, for full feature quote).

- ✓ The *Cosmos* series was, of course, pro-empiricism and anti-Cold War, and as such, it is understandable that Carl Sagan and Ann Druyan (and Norman Spinrad) were probably appalled by the *Star Wars* movies. Thus, this bit of narrative (and his later book/movie Contact) were intended to discourage *Star Wars*-like visions of galactic civilization. Yet, when I re-watched the episode a generation later, I was very disappointed at the flippant nature of his comment and failure to provide any reasonable basis for the assumption that one civilization would be far more advanced than the other – and if so, why they would not crush the other civilization: Though I am sure Carl Sagan would consider that unreasonable for a scientifically-enlightened species, GGDM doesn’t make that assumption. Did Carl Sagan know something he couldn’t tell us? Because, if not, he was making affirmative statements about something he could not possibly know for certain. In that sense then, Carl Sagan is both human and no different than the clergy and bible beaters.
- ✓ “The Pythagoreans and their successors held the peculiar notion that the Earth was tainted, somehow nasty while the heavens were pristine and divine.” – Carl Sagan, *Cosmos*, Episode 7); angelic traits and enlightenment are being assigned by Carl Sagan to residents of the far away heavens by virtue of their positions.

¹⁴ Commentary: *Hell in the Pacific* was one of the big losers of 1968 because of anti-Japanese prejudice and/or lack of dialogue and action which the Vietnam Era, Cold War audience either didn’t comprehend or wasn’t in the mood to watch. It followed another movie of 1968, *2001: A Space Odyssey*, which also had extended opening scenes (and other long sequences) without either humans or dialogue, and which was doing so poorly that it was nearly pulled from theatres after three weeks, but then began to be appreciated as art. *Enemy Mine*, like its predecessor *Hell in the Pacific*, was also a box office failure, even without Americans vs. Japanese. But the former Soviet public was in the mood to watch and appreciate the movie, it was the first big Western sci-fi import film success.

¹⁵ Commentary: Ms. Druyan then suggests that the explosive progress of science is due to the end of the Cold War.

- ✓ At the end of the Cold War, people thought, ‘well we survived that and now it’s over,’ the world moves on, they wanted to forget the Cold War, forget the threat of global thermonuclear annihilation and bask in the glow of the technologies sprung from the Cold War. This was *the mistake*, history is never ‘over,’ it was the same mistake made after World War I; expansionist militant ultra-nationalism ideologies were not ‘over’ or ‘history’ then (or now) as subsequent history demonstrated. The world does indeed move on, whether we want it to or not, dragging chains behind like Marley’s ghost in A Christmas Carol (1843).

¹⁶ Citation: “‘Happy new year, everybody!’ the host joked. ‘We have two maniacs with nuclear warheads bragging about who has the bigger button.’” – Jimmy Kimmel, as quoted in *The Guardian*, January 4, 2018.

¹⁷ Citation: This identical paragraph was also in the 2nd Edition published in 1946 (p. 948), so Montross had or picked up on this idea between 1945 and 1946. This must have been discussed in the intellectual-social circles.

¹⁸ Citation: cf. the Scouting activation of the Expansion Power, Through the Never, 3 Expansion, p. 907, *supra*.

¹⁹ Commentary: The section title is in reference to the WWE double-diving knee drop aerial move, not to the medieval monasteries in Greece.