

THE EMBLEM OF THE TERRAN FEDERATION



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1. Toward a Universal State

In his *Terro-Human Future History*, H. Beam Piper gives one emblem with regard to Terra; “a neat rectangle of blue bunting emblazoned with the wreathed globe of the Terran Federation”.¹ Also described as a “wreathed globe” on a “light blue” field,² this suggests that the Federation merely appropriates the old United Nations symbol, after that organization breaks up, probably in late 1973.³ Appropriating its emblem is consistent with Major Cutler’s statement that the TF will “take the place” of the UN.⁴ By taking its place, one can further deduce that the original headquarters of the Terran Federation are the former United Nations buildings in New York City. Rather than leaving the buildings vacant, and sending the large number of representatives and employees elsewhere, it would make more sense for those nations intending to join the new organization to keep their people where they are. However, the TF HQ would remain in New York for less than a year, because the city is probably atom-bombed in the Thirty Days’ War, in autumn 1974.⁵

By retaining the wreathed globe, the Terran Federation would symbolically retain the noble goals of its predecessors, the United Nations and the League of Nations. Those goals were world peace and collective security. The League of Nations was weak at best; the refusal of the US to join in 1920 was a major blow to its effectiveness, and the great powers who were members, like Britain and France, were unwilling to go to war to enforce its resolutions. This rendered the League essentially powerless. Nothing was done to halt fascist aggressions, like the Japanese invasion of Manchuria and the Italian invasion of Ethiopia. Moreover, the Axis powers eventually left the organization anyway; Germany and Japan withdrew in 1933, and Italy in 1937. In addition, large areas of the world, including almost all of Africa, were under colonial administration, and therefore could not hope to have their voices heard, let alone become members. And finally, because of its invasion of Finland in 1939, the Soviet Union was expelled by the quickly-declining League, which was soon swept away altogether by the Second World War.⁶

The United Nations, instituted after WWII, was an improvement over the League. All the major allied powers were founding members, and its headquarters was located in New York City, to secure the inclusion of America. And with the postwar dissolution of the colonial empires (notably the British and French), many new nations achieved independence, and became members of the UN in their own right. But like the League before it, the United Nations also had flaws. Of the five Security Council members, four were democracies, but the Soviet Union was a communist giant bent on world conquest. This, plus its veto power, made a mockery of peace and security. Indeed, another Security Council member, the Republic of China, was soon almost entirely overrun by Moscow’s protégé, Mao Tse Tung (1949). And Communist expansionism plagued many other nations, like Iran (1945-6), Turkey (1945-7), Greece (1946-1949), the Philippines (1946-1954), Indonesia (1948), Malaya (1948-55), Korea (1950-3), and of course Indochina (1946-1975).

The Cold War was on, and Piper appears to have believed that the United Nations would suffer the same fate as the League of Nations. This may be partly for the same reason; the League’s failure to stop fascist aggression in the 1930s was echoed by the United Nation’s failure to stop communist aggression in the late 1940s, 1950s and ’60s. Only the Korean conflict spurred collective intervention, and even then only because the Soviet representatives foolishly walked out of the UN instead of exercising their veto. Unable to secure world peace and security for all, the United Nations was therefore destined to fail.

In “*The Future History*”, however, Beam supplies the main reason. “Collapse of UN owing to disputes as to national sovereignty over, and militarization of, Luna.”⁷ So the breaking point is reached after the United States wins the Space Race and annexes the Moon.⁸ The Soviet Union undoubtedly rejects America’s right to control all of Luna, but the real threat comes when the US begins building “the Lunar fortress that would insure world supremacy.”⁹ The communist East cannot allow the capitalist West to achieve world supremacy, which conflicts with their own goal of ‘world revolution’. They therefore begin with a furious diplomatic offensive at the UN. This causes “the crisis over the Eastern demands for the demilitarization and internationalization of the United States Lunar Base.”¹⁰ Since what follows is “the complete dissolution of the old U. N.”,¹¹ the communist effort to politically neutralize the fortress fails, leading them to decide on a more direct course of action. The Soviet Union and its satellites withdraw from the United Nations, heralding its dissolution, and soon begin launching military operations, which

result in WWIII.

This sequence of events parallels those of the previous world war; the fascist nations, bent on expansion and contemptuous of diplomacy, left the League of Nations, and their overt aggressions resulted in the end of the League and the outbreak of WWII. Thus, part of the blame for the Second and Third World Wars can be laid on the political failures of the League of Nations and United Nations. The main blame, however, rests with the aggressive totalitarian powers; the fascist Axis in WWII, and the communist Eastern Axis in WWIII.

The Terran Federation, apparently formed in early 1974,¹² is in turn an improvement over the United Nations. The communist countries do not belong, at least until after WWIII, which removes the principal cause of the UN's difficulties. Another is the veto power of certain nations—those on the Security Council—which can override the votes of the rest of the world, a privilege that is undoubtedly revoked. Indeed, the Security Council itself, which was subordinate to the whims of its member's national governments, is replaced with a "Federation Government" in which nations are subordinate.¹³

The most important nation in the Terran Federation is the United States of America, the sole member that is also a superpower. And since it controls "the Lunar fortress that would insure world supremacy", the ultimate veto power is in American hands. Thus, the US Lunar Base is the guarantor of world peace and collective security after WWIII, and the Terran Federation is presumably under American hegemony for almost three-quarters of a century, from late 1974 to 2049 (AE 31 to 106).

The early Federation, however, has its own major flaw. Nation-states, including ones with totalitarian governments, still exist, and at least a few of them possess nuclear weapons. Piper implies that this will eventually result in another Atomic War, for "You either went on the inevitable catastrophe, or you realized, in time, that nuclear armament and nationalism cannot exist together on the same planet".¹⁴ Tortha Karf speculates that the Paratime Police "might have to pull out of that [sector] entirely", because there are "Too many thermonuclear weapons and too many competing national sovereignties."¹⁵ So the Federation does not completely succeed in ensuring world peace and collective security until World War IV destroys the Northern Hemisphere. After that conflict, totalitarian governments and competing nation-states are finally eliminated altogether, and nuclear weapons brought under unified control.

But that's getting ahead of the story; let's go back and take a look at the pre-WWIII UN emblem.



Figure 1. The United Nations flag, from late 1947 to late 1973 (AE 4 to 30).

2. The Wreathed Globe

“The current United Nations emblem was approved on 7 December 1946. The design is “a map of the world representing an azimuthal equidistant projection centred on the North Pole, inscribed in a wreath consisting of crossed conventionalized branches of the olive tree”...The projection of the map extends to 60 degrees south latitude, and includes five concentric circles...[The] Olive branches symbolize peace. The world map depicts the area of concern to the United Nations in achieving its main purpose, peace and security.”¹⁶

While that description covers the emblem, the flag of the UN was adopted almost a year later, on 20 October 1947. This was defined as “The official emblem of the United Nations [in] white, centered on a light blue ground.”¹⁷

Like the flawed UN itself, however, its symbol has several problems. In Piper’s time, not all nations belonged—most notably Red China, the fourth largest in the world—and yet they are included in the emblem. Moreover, the wreathed globe does not in fact include the whole world. The limit of 60 degrees south latitude means that Antarctica, a continent larger than Australia and Europe, is not displayed.¹⁸

3. The First Terran Federation

Nevertheless, Figure 1 fits the description by Piper that the emblem of the Terran Federation is a “wreathed globe” on a “light blue” field. In his *Future History*, the wreathed globe is therefore the emblem of the UN from 1946 (Atomic Era 4) until late 1973 (AE 30). At that time, the organization dissolves over the Eastern Axis’ failure to neutralize the US Lunar base, after which the Communist Bloc presumably withdraws. Another contributing factor to the UN breakup is the Eastern-inspired assassination of Khalid ib’n Hussein, “the pro-Western leader of the newly formed Islamic Caliphate.”¹⁹

But the Americans are ready to replace the United Nations with a new organization, the “Terran Federation”, retaining the UN flag and occupying the old UN headquarters in New York. The new Federation will use the American lunar fortress as the guarantor of peace and security. When it is completed, its hundreds of nuclear missiles, located on the ‘high ground’ of Luna, hold the promise that any aggressor nation will face annihilation.

Less than a year later, however, the communist enemy launches the Thirty Days’ War. The Eastern Axis apparently believes the base is not yet operational, and must therefore strike before it is. An additional objective is probably to capture the base, and complete it themselves, thereby transferring world supremacy from the West to the East. Fortunately, “By that time, the Lunar base would be completed and ready”,²⁰ so the Axis strikes too late. And in retaliation for its nuclear sneak attack on America, “The enemy would be utterly overwhelmed under the rain of missiles from across space, but until the moon-rockets began to fall, the United States would suffer grievously.”²¹

By “enemy” Piper undoubtedly means America’s main enemy in the Cold War, the USSR. At the peak of their arsenals, the two superpowers had literally tens of thousands of nuclear weapons, while the other nuclear powers like Britain and China had only hundreds. The strategic nuclear exchange of WWII is therefore mainly between America and Russia, and Beam implies as much. “There were still, in 1968, a few people who were afraid of the nuclear power plant. Oldsters, in whom the term “atomic energy” produced semantic reactions associated with Hiroshima. Those who saw, in the towering steam-column above it, a tempting target for *enemy—which still meant Soviet*—bombers and guided missiles.”²² The weaponry supports the deduction that only the Soviet Union is intended. Though Red China and India are part of the Eastern Axis led by the USSR, they did not have long range bombers and guided missiles in 1974. Only now, over thirty years later, are they finally developing them.

Thus, the bombers and guided missiles Piper refers to come from the Soviet Union. This explains the result of WWII. The USSR—not the whole Eastern Axis—is “utterly overwhelmed” or obliterated, while the USA “suffers grievously” but survives. And more, for since it retains control of the lunar nuclear missile fortress, America achieves world supremacy; it becomes the sole superpower. The Terran Federation is a US creation,²³ and becomes “some kind of a world empire”,²⁴ so after WWII, America stands both victorious and supreme. This *Pax Americana* lasts for quite a while, 74 years, until the Fourth World War breaks out in 2049 AD. During this time, the Federation capital undoubtedly remains in

North America, and probably stays there until “the debacle in the United States in A. E. 114”.²⁵ The old UN emblem is therefore the emblem of the First Terran Federation from AE 31 to 114. (Figure 2.)



Figure 2. Flag of the early (US-dominated) First Terran Federation, from early 1974 to 2057 (AE 31 to AE 114).

However, with the destruction of New York City in WWIII, the capital of the Federation probably moves to St. Louis, paralleling an event in Piper’s story “Hunter Patrol”. There, “The U.N. chose St. Louis for its new headquarters—many of its offices had been moved there after the bombing of New York—and [then] the city by the Mississippi began growing into a real World Capital”.²⁶ Although “Hunter Patrol” does not belong in the Terro-Human Future History, the Federation under American dominance is “some kind of a world empire”, so a World Capital in the American heartland would make political sense.

It would make strategic sense too, as also stated in “Hunter Patrol”. “St. Louis...was centrally located, and, being behind more concentric circles of radar and counter-rocket defenses, it was in better shape than any other city in the country and the most likely to stay that way.”²⁷ America’s peripheral cities—like “New York and Washington and Detroit and Mobile and San Francisco”²⁸—are also hit in the Thirty Days’ War, but the heartland is unscathed.

It is therefore likely that, soon after WWIII, either in late 1974 or early 1975, the wreathed globe banner of the Terran Federation is officially transferred from New York to St. Louis, where it remains until 2057.

4. World War IV

Though victorious in WWIII and dominant in the Federation, American supremacy does not last forever. *Uller Uprising* mentions “the old U.S. [nuclear weapons] data that General Lanningham brought to South America after the debacle in the United States in A. E. 114.”²⁹ Lanningham’s departure from the Northern Hemisphere seems connected to “the end of civilization in the Northern Hemisphere and the rise of the new civilization in South America and South Africa and Australia”, also from *Uller Uprising*.³⁰

The destruction of an entire hemisphere would certainly take a world war to accomplish, which should make this major event Piper’s Fourth World War. And in “The Future History”, Beam confirms this. “World War IV. (First Interplanetary War.) A.E. 106-109; minor wars for ten years thereafter. Complete devastation of Northern Hemisphere of Terra.”³¹ The American debacle and Lanningham’s exodus are paralleled in Beam’s story “The Answer”, where after a world war devastates the Northern Hemisphere,

American and Russian nuclear scientists migrate to South America; specifically Argentina. In that non-THFH story, however, the war in question is not WWIV, but WWIII, and this WWIII occurs in 1969, not 1974. The aftermath is a little different, too. “And the end result—the United States and the Soviet Union blasted to rubble, a whole hemisphere pushed back into the Dark Ages, a quarter of a billion dead.”³²

From the end of WWIV in AE 109, “ten years thereafter” would be AE 119. Thus, America, the dominant nation of the Terran Federation, actually survives WWIV, but five years later suffers a “debacle”; meaning a catastrophic defeat, or rout. This may be the *coup de grace*, as the US must have suffered more greatly in WWIV than it did in WWIII.

The reason being that in the decades since WWIII, advances in nuclear weaponry make WWIV much worse than its predecessors. The development of “the Bethe-cycle bomb, and the sub-neutron bomb, and the omega-ray bomb, and the nega-matter bomb”,³³ as Carlos von Schlichten says, “almost made a lifeless desert, like the poles of Uller, out of our world”.³⁴ “Our whole Northern Hemisphere, where our greatest nations were, was devastated; much of it is wasteland to this day.”³⁵ From Carlos’ perspective, WWIV happened over four centuries ago,³⁶ so at least some of the Northern wastelands are still radioactive, or have not yet been added to the “reclamation projects” begun centuries earlier.³⁷

Thus, the result of the Third World War is completely overshadowed by the Fourth. Seriously wounded in WWIII (and pushed back into the Dark Ages in “The Answer”), the United States is presumably nearly destroyed during WWIV, and then finished off five years later. From the devastated ruins of nuclear-wasted America, General Lanningham leaves for South America. But the enemy fares no better, since the end result of WWIV is not just a hemispheric Dark Age, but the end of civilization in the Northern Hemisphere entirely.

The enemy this time is most likely Red China and India, the surviving members of the Eastern Axis. In my early paper “TF HQ” I speculated that right after the USSR is destroyed during WWIII, the US may be facing defeat. It has ‘suffered grievously’ from Soviet nuclear missiles, yet China and India fight on, perhaps sensing victory over the badly weakened Americans. The US therefore ‘reloads’ the Lunar fortress with nuclear missiles from the secret duplicate and triplicate rocketports, and orders the surviving Axis nations to surrender, or face the same fate as Russia. Wisely, Peking and New Delhi yield, and this leaves them free to fight another day.³⁸

That day comes 75 years later, in AE 106, when what I call the ‘Sino-Hindic Axis’ has grown to become a superpower in its own right, and makes the last totalitarian attempt to gain world supremacy over the democratic nations, even as the communist USSR and the German fascist and Imperial regimes did in previous world wars.

5. The Later First Federation

After the Fourth World War destroys the Northern Hemisphere, the Terran Federation is centered in the Southern Hemisphere. This is “the new civilization in South America and South Africa and Australia.”³⁹ Foreseen by Professor Chalmers as a “Completely unified world; abolition of all national states under a single world sovereignty”,⁴⁰ it is the new Southern civilization that abolishes nation-states, and brings nuclear weapons under unified control. “[W]e made one nation out of all our people, and vowed never to commit such [Atomic War] crimes again.”⁴¹ In “TF HQ”, I deduced that Montevideo becomes the new capital city of the Federation, after St. Louis is destroyed; possibly in WWIV but more likely in the debacle of AE 114.

With this southward transfer of the flag, however, a major problem with the emblem occurs. The symbol of the old United Nations and early Terran Federation is centered on the North Pole, but the new political reality is Southern Hemispheric dominance. So as I wrote to John Carr back in the early 1980s, a major change in the emblem would seem to be required. The projection should be shifted from a North Polar to a South Polar orientation. This brings the Southern continents into prominence, and pushes the now-ruined Northern ones out toward the periphery, reflecting the new world order. (Figure 3 shows the general idea, which I finally put on paper in 2009.)

The vertical axis of the old emblem, 0 degrees/180 degrees longitude, was retained in the new

emblem, in order to keep the Western and Eastern Hemispheres in the correct cartographic position. And the southern projection has the benefit of including Antarctica, the only major landmass missing from the old northern version. Another advantage is that the continents of the new civilization are displayed in the order Piper names them; clockwise from upper left, South America and South Africa and Australia.

While drawing the emblem, one change I decided upon is the removal of all lines pertaining to latitude and longitude.⁴² Though important to determine location, these can be viewed as lines of geographic division, which, like national borders, separate the world into different regions. In making one nation out of all Terro-Humanity, the post-WWIV Federation would probably be at pains to emphasize unity.



Figure 3. Proposed flag of the later (Southern-dominated) First Terran Federation, from circa AE 115 to 183 (2057 to 2126 AD).

The new version, which still fits Piper’s “wreathed globe” description, could officially be defined as follows. ‘The current Terran Federation emblem was approved on 8 August 2058. The design is “a map of Terra representing an azimuthal equal area projection centered on the South Pole, inscribed in a wreath consisting of crossed conventionalized branches of the olive tree. The projection of the map extends to 90 degrees north latitude, and therefore includes the entire World.” ’

The resulting emblem, shorn of all imaginary man-made lines, and including the whole surface of the globe, then becomes a more powerful symbol. All of Terra is at last represented, all of Terra is at last united, and all of Terra is at last at peace, free from the ravages of competing nation-states armed with nuclear weapons.

6. A Projection Problem

There’s just one more modification, not mentioned above. Careful readers will have noticed that I changed the projection from azimuthal equidistant to azimuthal equal area. Figure 4 shows why.

The problem with equidistant projection (seen on the left) comes with the widening radius of the concentric circles, moving outward from Antarctica. The distance between each circle remains constant, so the latitude is fine. However, the checkerboard ‘segments’ between the circles get wider, and therefore larger, the farther out you go. This means that the longitude gets distorted; the continents toward the outer edge are greatly widened in size. Thus, North America, Europe, and Asia appear much larger than normal,⁴³ and seem to overshadow, if not dominate, the relatively much smaller Southern

continents. This is not a good image if you are trying to emphasize the new political reality of a Southern-based civilization.

The equal area projection, seen on the right, corrects this distortion, by decreasing the distance between the concentric circles. Though the checkerboard segments still get wider the farther out you go (increased longitude), they don't get any larger, because they get narrower in the other direction (decreased latitude). Every segment therefore has the same, or equal, area. This means the Southern continents are at their true size relative to the Northern ones, and the resulting emblem more prominently displays the centers of the new civilization, while marginalizing the ruined centers of the old one.

The equal area projection is also more close to reality, in that the view is a better representation of Terra as seen from a point in space directly above the South Pole.

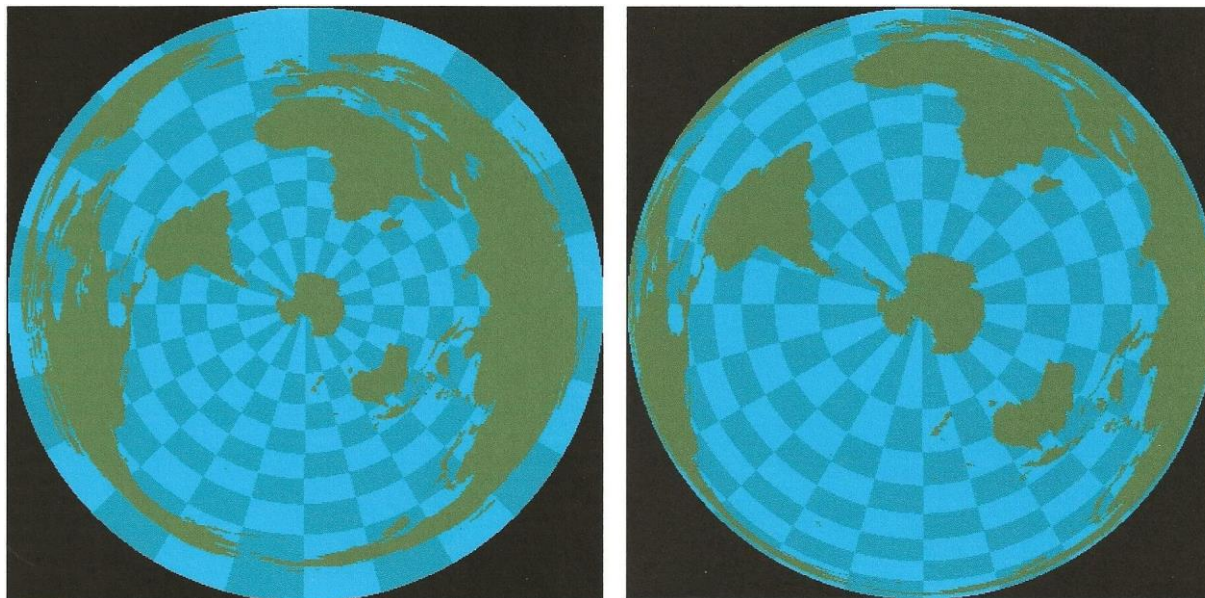


Figure 4. Azimuthal equidistant projection versus azimuthal equal area. ⁴⁴

7. The Secession of Venus

Sixty-five years after WWIV, in AE 174, Venus secedes from the First Terran Federation. This apparently does not cause a change in the TF emblem. *Uller Uprising* takes place over 350 years later, in AE 526, and the emblem is still the wreathed globe of Terra. So we must assume that the Secession fails; or, at most, results in a negotiated settlement.

If the Secession had succeeded outright, Venus would have become an independent planet, but this does not occur. And had the planetary colonies achieved actual equality with Terra in the Federation, not only the symbol but the name of the organization would have changed. Perhaps to the *Solar Federation*, similar to “the Solar League” of Beam’s novel *Lone Star Planet*.⁴⁵ The Terran globe would then have probably been replaced by Sol, changing the emblem to a ‘wreathed sun’. But this also does not happen.

And Piper appears to confirm that the Secession fails. In “The Future History”, he writes “Wars of colonial pacification and consolidation; the new [Second] Federation imposes System-wide pax.”⁴⁶ This implies that Venus is ‘pacified in war’, it is defeated. Besides which, if the Federation were not victorious, it wouldn’t be able to ‘impose’ anything, let alone a “System-wide pax”. So the most likely scenario is that the Secession fails. But though outright independence is denied, the colonial worlds are actually granted greater stature in the Federation; they graduate from “colonies”⁴⁷ to “Member Republics”.⁴⁸ Perhaps Venus put up a stiff enough fight to gain the respect of the Federation, and a realization that the best way to pacify the colonial planets in the long term is to give them a greater role, and therefore stake, in the TF.

However, Terran dominance of the Federation is confirmed, reflected in Terra remaining the central symbol in the TF emblem, and supported by “The good men all left to colonize, and the stuffed-shirts and yes-men and herd-followers and safety-firsters *stayed on Terra* and tried to govern the Galaxy.”⁴⁹

8. The Second Terran Federation

The result of this political reshuffling is the Second Terran Federation. “And after Venus seceded from the First Federation...the Second Federation was organized.”⁵⁰ Terra remains dominant, but the increased political stature of the other planets seems to make the Second a rather more egalitarian federation than the First. One of the changes making this a ‘Second’ Federation may therefore be an amendment to the Federation Constitution.⁵¹ The deduced amendment would provide a mechanism by which planetary colonies can evolve into Member Republics. And as Member Republics, this may be the first time planets like Venus are allowed to elect and send representatives to the Federation “Parliament” on Terra.⁵² That gives the former colonies a greater voice in TF affairs. After Terra, Venus and Mars are probably the second and third Member Republics of the Second Federation. Although as the capital planet, Terra may not be a Member Republic, but a special administrative zone, like Washington, DC.

After the Secession of Venus, the wreathed globe remains the symbol of a united Second Federation for many centuries, from AE 183 to 839. During this extended period of peace, prosperity, and expansion, the noontide of Federation glory, hundreds of planets are colonized and grow into Member Republics under the wreathed globe banner. But eventually, serious political divisions reappear, leading to another secession, that of the System States, resulting in the System States War.



Figure 5. Proposed flag of the Second Terran Federation, from AE 183 to circa 1097 (2126 to 3040 AD).

In what Piper’s later characters call “the Big War”,⁵³ and future Terro-Human historians could officially term the ‘First Interstellar War’, the System States Alliance is defeated by the Terran Federation in a twelve-year campaign (AE 842 to 854). The colors of the System States are “Green and black”,⁵⁴ a dark combination of colors possibly adopted in strong symbolic contrast to the light ones (white and light blue) of the Federation emblem.

But though they are fighting against the Federation, the design of the Alliance emblem may actually be based on the wreathed globe. Beam’s historical model for the System States Alliance appears to be the

Confederate States of America, and the original flag of the Confederacy was a modified Stars and Stripes, called the Stars and Bars. So the System States' symbol should be a modified wreathed globe. Within Beam's imagined universe, the reason for modifying the Federation design would be that, for almost seven centuries, the wreathed globe has been the only political symbol of Terro-Humanity as a whole. That would leave the SSA with no other legitimate model for an emblem to represent their common cause.

And tying these two reasons together, the South believed the Federal Government was becoming too powerful, and that the Confederacy more truly represented the original vision of our Founding Fathers. In parallel fashion, the Federation Government becomes something of a "tyranny...before the Big War",⁵⁵ while the frontier planets of the System States are more like the early Federation. As John Carr puts it, "Terra is a hotbed of Neo-Marxist liberalism and we get the idea that it is beginning to fall into decadence, and that in large part the colonial spirit of the outer worlds is all that is keeping the Federation alive and functioning."⁵⁶ So the Alliance may adapt the wreathed globe because it sees itself as an organization more true to the founding principles of the Second Federation than the Federation itself.⁵⁷ (See my paper "A Flag for the System States Alliance" for a full treatment of the subject, including several possible designs.)

9. The Emblem in Evening

With the defeat of the System States Alliance and the end of the Big War, "the Banner Black and Green"⁵⁸ is delegitimized,⁵⁹ and possibly outlawed, as Federation forces under the wreathed globe "move an occupation army into System States planets".⁶⁰ But although the Terrans symbolically reassert their authority by once again raising their flag over the breakaway systems, the secession is merely a prelude of worse to come. The cosmic computer Merlin calculates that the victorious TF is actually headed toward total dissolution, like its predecessor the old United Nations many centuries before. "The Terran Federation, overextended, had been cracking for a century before the War; the strain of that conflict had started an irreversible breakup."⁶¹

Describing the System States Alliance, Klem Zareff says, "We had ninety systems, a hundred and thirty inhabited planets, a hundred billion people—and we were on the defensive in our own space-area!"⁶² The combat theater of the First Interstellar War is therefore centered on the System States. The rest of the Federation is spared material destruction, though the economic strain is heavy. "The Terran Federation had impoverished a hundred planets, devastated a score, actually depopulated at least three, to keep the System States Alliance from seceding. It hadn't been a victory. It had only been a lesser defeat."⁶³

Until now, my view was that the hundred impoverished planets refer to Federation ones, financially drained to pay for the war effort. But now I wonder if it refers to those of the System States. If so, then the quote would be saying that, of the original 130 SSA planets, 100 are impoverished, possibly by Federation blockades of Alliance systems, leaving only 30 still economically prosperous.⁶⁴ Of the thirty, "a score" or 20 are devastated by military action, probably including orbital bombardment, bringing the total of untouched planets down to 10. And of the remaining ten, 3 are depopulated (though these may actually be included in the "devastated" category), leaving only 7 out of 130 planets still in a pre-War state! That's only about a 5.4% survival rate.

This low percentage is supported by the results of the more general "Interstellar Wars" that eventually follow.⁶⁵ The Interstellar Wars will involve the entire five hundred planets of the Federation, and are therefore at least three times more destructive and expensive than the System States War. By the time of *Space Viking*, "There aren't a dozen and a half planets in the Old Federation that still have hyperdrive, and they're all civilized. That's if "civilized" is what Gilgamesh is".⁶⁶ That means out of 500 planets, only 17 at most (16 if we leave out Gilgamesh) still retain a Federation-level civilization. The other 480 have been devastated and/or impoverished in the Interstellar Wars. That's only about a 3.4% survival rate, proportionately even worse than the System States War.⁶⁷

Thus, the era of *The Cosmic Computer*, set between the moderately-destructive First Interstellar War and the far more destructive Interstellar Wars, seems to represent 'the evening glow' of the Federation.

Its autumn, as evidenced by the story's beginning and ending at harvest time. But the glow will be fairly long-lasting, for there are still "Two centuries for the Federation, as such".⁶⁸ And as "the Awful Truth About Merlin"⁶⁹—in particular its awful prediction about the fate of the Federation—remains hidden, it is implied to be a largely peaceful one as well.

In *Space Viking*, Piper supplies a better phrase for this period. Tanith was "one of the last planets colonized before the Big War".⁷⁰ Its capital Rivington was "built...in the sunset splendor of the old Terran Federation...then the sun of the Federation had gone down."⁷¹

"Sunset splendor" well describes late Federation times, including *The Cosmic Computer*. Altering and extending the metaphor, when the 'sun' of the Terran Federation sets, the wreathed 'globe' goes down with it. In the long night of barbarism that follows, a few bright stars of civilization, like Marduk, shine amid the darkness. But there may be a 'morning star' in Beam's Future History.

Piper says that the "Emblematology of planets conquered by the Space Vikings always included swords and stars."⁷² One of these planets is Tanith, whose ruler is Prince Trask. Trask is the main force for civilization in *Space Viking*. He recivilizes Tanith, helps Amaterasu and Beowulf regain spaceflight and/or hyperdrive, and is the organizer and leader of the allied fleet that rescues civilization on Marduk. When Prince Trask becomes the King of Tanith, he undoubtedly replaces the sword-impaled skull emblazoned on his ship the *Nemesis* with a more civilized symbol. Tanith's new emblem may therefore include a star of many points, representing his dream, the League of Civilized Worlds.⁷³ And this would be a *morning* star, heralding the dawning of a new day for Terro-Humanity; the rise of a new sun, the "Sun and Cogwheel" of the First Galactic Empire.⁷⁴

10. Conclusion

Other than his vague description of a wreathed globe on a light blue field, Piper did not supply any further information on the emblem of the Terran Federation. Probably it was just a minor detail in the vast sweep of his galaxy-spanning future history, requiring no further elucidation. But with my own keen interest in heraldry and vexillology, this was not enough, and the current paper is an attempt to analyze the emblem in detail, and propose a few changes, while staying within Beam's description.

Overall, the wreathed globe is a proto-world emblem from 1946 to 1973 (the ineffective, non-universal and dis-United Nations), a global emblem from 1974 to 2057 (the early First Terran Federation, "some kind of a world empire", dominated by the United States); an interplanetary emblem from 2058 to 2126 (the later First Federation, centered in the Southern Hemisphere of Terra, now a "Completely unified world"), and finally an interstellar emblem from 2126 to 3040 (the Second Terran Federation, dominated by Terra).

Thus, the wreathed globe—Northern and possibly Southern versions—is the emblem of Terra for almost eleven hundred years; from 1946 to around 3040 AD (or AE 3 to circa AE 1097). Even after the breakup of the Second Federation, it undoubtedly remains the symbol of Terra itself; both as a memorial to vanished glory and a political claim to any planets the former capital may attempt to reacquire in the Interstellar Wars. The TF emblem probably does not fall into final disuse until Terra itself is "*bombed back to the Stone Age*" during these wars of dissolution.⁷⁵ Thereafter, the wreathed globe would become a symbol of historical interest only, like the vanished Stars and Stripes of the old United States that founded it, and the ancient wreathed eagle of the Roman Republic that is its historical model.⁷⁶

Is there a revival of the emblem in the far future? By the time of the Fifth Galactic Empire, Terra is "a backwater world",⁷⁷ yet it is no longer wholly in the Stone Age. Civilization has revived, in "the cities of Awster and fabulous Antark."⁷⁸ As I stated in my paper on that subject, these are simply Beam's far future names for Australia (Aw-ster-a-li-a) and Antarctica (An-tark-ti-ka). So the southward shift of civilization, begun after WWIV, has reached the ultimate; the South Pole is now the capital of Terra.

We recall that Antarctica was at the center of the proposed emblem for the Second Terran Federation, deduced to be adopted circa AE 115. A little less than thirty thousand years later,⁷⁹ the political reality has finally caught up with it, meaning that the government of Fifth Empire Terra could adopt a similar planetary emblem. And if we rotate the globe counterclockwise 135 degrees, we see that Awster and

fabulous Antark are now in the prominent position, reflecting the world order of this far future time. (Figure 6.)

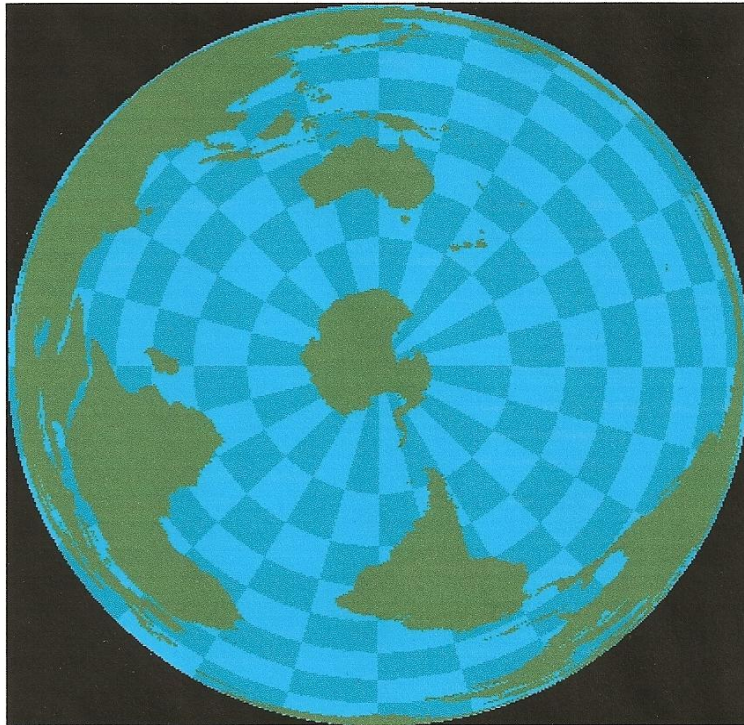


Figure 6. South polar azimuthal equal-area projection, centered on “Awster and fabulous Antark”; Australia and Antarctica. ⁸⁰

Such an emblem would display an almost 180 degree eastward (or more than 180 degree westward) shift from that of its ancient predecessor, the Second Terran Federation, whose emblem was itself a 180 degree southward shift from those of its predecessors, the early First Federation and the United Nations. The dramatic political changes to Terra over time would then be reflected in its planetary symbols. ⁸¹

The other dramatic change current on Fifth Empire Terra is an extensive northern glaciation; a new Ice Age. So another modification from the ancient Federation emblem that comes to mind would be a thicker white circle surrounding the planet. The broader ring would represent the “Ice-Father”. ⁸²

In the ancient past—a hundred and thirty thousand years or so before “The Keeper”—Martio-Humans first landed in Eurasia. “They left the mountains—were they the Caucasus? The Alps? The Pamirs?” ⁸³ The Caucasus are on the border of Europe and Asia, the Alps are in Europe, and the Pamirs in Asia. In Piper’s universe, Terro-Human civilization therefore began on Terra’s largest continent, Eurasia, then spread to the second-largest, Africa. As we’ve seen, the next largest, North America, becomes the center of Terro-Human civilization after WWIII, and the next largest after that is South America, which becomes the center after WWIV. Thus, the trend continues into the far future, when the smallest continents, Antarctica and Australia, are the final centers of human civilization on “the Mother-World, Terra, the world that sent Man to the Stars.” ⁸⁴

ENDNOTES

1. Toward a Universal State

1. H. Beam Piper, *Uller Uprising* (New York, NY: Ace Books, 1983), p. 14
2. H. Beam Piper, *Federation* (New York, NY: Ace Books, 1981), p. 184
3. H. Beam Piper, *Empire* (New York, NY: Ace Books, 1981), p. 30 Professor Chalmers foreknows that “Khalid’s death was necessary to the policies of the Eastern Axis, and...would hasten the complete dissolution of the old U.N., already weakened by the crisis over the Eastern demands for the demilitarization and internationalization of the United States Lunar Base, and necessitate the formation of the Terran Federation, and how it would lead, eventually, to the Thirty Days’ War.” The sense I get from this quote is that the United Nations completely dissolves by the end of 1973, the Terran Federation is formed in the first few months of 1974, and the Thirty Days’ War follows about six months later.
4. *Ibid.*, p. 48
5. H. Beam Piper, *The Worlds of H. Beam Piper* (New York, NY: Ace Books, 1983), pp. 96, 173 New York City is nuked by name in “Hunter Patrol” and “The Answer”. Both of these are non-THFH stories, but New York is undoubtedly nuked in Piper’s main Future History, as well. Ed Chalmers also foreknows that “Northern State Mental Hospital” was “in the one part of [California] completely untouched by the H-bombs of the Thirty Days’ War.” (Piper, *Empire*, p. 57) This strongly implies that both Los Angeles and San Francisco on the West Coast are hit; by extension, New York and Washington on the East Coast probably are, too.
6. Michael Dockrill, *The Atlas of Twentieth Century World History* (New York, NY: HarperCollins, 1991), p. 41
7. John F. Carr, *H. Beam Piper: A Biography* (Jefferson, North Carolina: McFarland & Company, Inc., 2008), p. 212
8. Piper, *Worlds*, p. 54 In “The Mercenaries”, Luna is annexed to “the Western Union”, one of four great power-blocs. The others are the Fourth Komintern, the Ibero-American Confederation, and the Islamic Kaliphate. “Western Union” appears to mean America and its allies, such as Western Europe and Japan, Australia and New Zealand. Roughly, the West as a whole. “The Mercenaries” is another non-THFH story, but because Beam states that the UN collapses due to “disputes as to national sovereignty over...Luna”, the lunar annexation concept is clearly applicable. “Western Union” is not used in the THFH, and in “The Edge of the Knife” the moon-missile site is called the “United States Lunar Base”, so the Moon is presumably annexed to America alone.
9. *Ibid.*, p. 30
10. Piper, *Empire*, p. 30
11. *Ibid.*
12. In his short piece “The Future History”, Piper says “Organization of First Terran Federation 32 A.E.” (Carr, *Piper Biography*, p. 212) This is an error, because AE 32 would be sometime in 1975, and the creation of the TF occurs well before World War III breaks out in September of 1974. In “The Edge of the Knife”, Professor Chalmers muses that “Tallal ib’n Khalid...would return, and eventually take his father’s place, in time to bring the Caliphate into the Terran Federation when the general war came.” (Piper, *Empire*, pp. 16-17) This implies that Tallal becomes secure as the leader of the Caliphate only after many months (roughly November 1973 to early September 1974) of fighting his Islamic rivals and enemies. Upon the outbreak of WWIII, he sides with the already-existing Federation. (See endnote 3.)
That “AE 32” is incorrect is supported by the fact that there are several other errors in “The Future History”.
13. Piper, *Federation*, p. 46 In “Omnilingual”, Tony Lattimer mentions the importance of sharing their discoveries on Mars with people on Terra. “I think it’s important that one of us go back, to present the story of our work, and what we have accomplished and what we hope to accomplish, to the public and to the universities and the learned societies, and to the Federation Government.” Notice that bringing them to the attention of *national* governments is

not even on the list; a clear indication that the Terran Federation is a global state.

A world government is also the case in "Hunter Patrol", where "the United Nations rules the world", and nation-states have been demoted to mere states of the global union (Piper, *Worlds*, p. 85); and in *Crisis in 2140*, where the "Reunited Nations" is seemingly of global extent, but nation-states such as Nepal and Israel still exist, the latter even continuing its long history of border clashes with the Arabs. (H. Beam Piper and John J. McGuire, *Crisis in 2140* (New York, NY: Ace Books, 1957), p. 9)

14. Piper, *Uller Uprising*, pp. 186-187

15. H. Beam Piper, *Lord Kalvan of Otherwhen* (New York, NY: Ace Books, 1965), p. 3 Opinions differ as to whether Beam's Paratime and Terro-Human Future History series are connected, but since the Paratime universe contains "a near-infinity of worlds of alternate probability" (ibid., p. 2), it is highly probable that the Fourth Level Europo-American Sector contains a timeline corresponding to the THFH. Any difference between this Para-THFH and the real THFH would therefore be academic.

And in the Terro-Human Future History, Piper confirms that nation-states still exist after WWIII. "Further explorations of Mars, Venus, Asteroid Belt and Moons of Jupiter. First Federation begins to crack under strains of colonial claims and counter-claims of member states." (Carr, *Piper Biography*, p. 212) These events occur in the roughly fifty-year span of 1997-2049.

2. The Wreathed Globe

16. Dag Hammarskjold Library online: <http://www.un.org/depts/dhl/maplib/flag.html>

17. Ibid.

18. We have seen that the events leading up to WWIII parallel those that preceded WWII. Since all three of the Axis powers—Germany, Italy and Japan—were members of the League of Nations, then it should follow that all three Eastern Axis members—USSR, Red China and communist India—are members of the UN. The Axis powers left the League before WWII, and the Eastern Axis leaves the UN before WWIII. Assuming this line of reasoning is correct, then Piper projected that Red China would join the United Nations sometime after 1956 (when "The Edge of the Knife" was published) and before 1973. If so, he was right; it became a member in 1971.

3. The First Terran Federation

19. Piper, *Empire*, p. 16

20. Ibid., pp. 55-56

21. Ibid., p. 56

22. Piper, *Worlds*, p. 199, emphasis added

23. Piper, *Empire*, p. 48

24. Ibid., p. 47

25. Piper, *Uller Uprising*, p. 169

26. Piper, *Worlds*, p. 100

27. Ibid., p. 99

28. Ibid., p. 173

4. World War IV

29. Piper, *Uller Uprising*, p. 169

30. Ibid., p. 150

31. Carr, *Piper Biography*, p. 212

32. Piper, *Worlds*, pp. 172-173 Beam makes several mentions of a Fourth World War elsewhere. See H. Beam Piper, *Four-Day Planet/Lone Star Planet* (New York, NY: Ace Books, 1979), p. 31. And, Piper and McGuire, *Crisis*, p. 19

33. Piper, *Uller Uprising*, p. 150

34. Ibid., p. 65

35. Ibid.

36. Ibid.

37. Piper, *Federation*, p. 213

38. This ultimatum would parallel President Harry Truman, who in WWII ordered Japan to surrender unconditionally. The Potsdam Declaration of July 1945 promised “the utter devastation of the Japanese homeland” if it did not comply, later phrased as “The alternative for Japan is prompt and utter destruction.”

(http://en.wikisource.org/wiki/Potsdam_Declaration)

But Japan refused to surrender, even though many of its cities had been firebombed, and its allies Italy and Germany had both been defeated. Indeed, the Potsdam Declaration makes this very point. “The result of the futile and senseless German resistance to the might of the aroused free peoples of the world stands forth in awful clarity as an example to the people of Japan.” (ibid.) After the atomic bombing of Hiroshima, Truman again called on the Japanese to surrender, announcing that “If they do not now accept our terms, they may expect a rain of ruin from the air, the like of which has never been seen on this earth.” Even still, it took the second bomb drop on Nagasaki before Japan finally bowed to the inevitable.

In the Third World War, the ultimatum from the American President (Blake Hartley’s third term, in my view) would demand the unconditional surrender of Red China and India. Though not using the exact same words as those of Truman, it would essentially state that if they do not surrender, ‘They may expect a rain of ruin from space the like of which has just been inflicted on the USSR’, resulting in ‘the prompt and utter destruction’ of their homelands. The President would further state how ‘futile and senseless’ it would be to refuse this demand, since the obliteration of the USSR ‘stands forth in awful clarity as an example’ of the devastating consequences.

That Piper at least partly had a WWII parallel in mind for WWIII is suggested by his name for the enemy alliance, the Eastern Axis. And to the other Axis members, the unstoppable and total destruction of their Big Brother Russia by American missiles from space would be a salutary demonstration of the moon base’s power. The two American nukes air-dropped on Japan in WWII would be as nothing next to the presumably two hundred or more US nuclear missiles space-dropped on the USSR in WWIII. Any thought of continuing the fight would be suicidal; Red China and India probably surrender with little delay.

5. The Later First Federation

39. Piper, *Uller Uprising*, p. 150 In “The Future History”, Piper phrases it as “Second Federation organized by South Africa and New Zealand, Brazil, the Argentine, etc.” (Carr, *Piper Biography*, pp. 212-213) This entry immediately follows that of WWIV, making it sound as if the Second Federation is formed just after that global war. But this is in apparent disagreement with his specific statement in *Space Viking* that the Second Federation is formed after the Secession of Venus, sixty-five years after WWIV. “And after Venus seceded from the First Federation, before the Second Federation was organized.” (Piper, *Space Viking*, p. 13) My impression has always been that Venus fights the First Federation, and the Second Federation is organized after that war.

Since “The Future History” is a short summary of many events over many centuries, misrepresentations and even outright errors are almost inevitable, due to compression. And in endnote 12, we saw that there are indeed errors in Piper’s summary. He simply wasn’t as clear as he could have been. Given his secretive nature, it may have at least partly been deliberate. But confirmation that the reference in *Space Viking* is correct is found in Beam’s underlying scheme of historical models, as revealed in my paper “The Early Terran Federation”.

40. Piper, *Empire*, pp. 21-22 The Professor says that this global union will occur in “2050 to 2070”. We’ve seen that WWIV lasts from 2049 to 2052 AD, which overlaps the early part of that range, and minor wars follow until 2062, right in the middle of the range. Chalmers’ vagueness is explained by his statement “The trouble was that he so seldom “remembered” an exact date.” (ibid., p. 17) The abolition of national states therefore seems directly related to the war. The Northern Hemisphere is devastated, which means that about 70% of Terra’s land surface is ruined. The surviving Southern nations must prevent a ‘Fifth’ World War from ruining the remaining 30%, thereby finishing off the planet entirely. If Terro-Human civilization is to survive, nation-states must be eliminated. The abolition would therefore occur after WWIV, and is possibly related to the arrival of General Lanningham in South America in 2057. That date also falls within the range 2050-2070.

The word “abolition” further suggests that nation-states are *legally* abolished; that is, by a legislative act of the Federation. Chalmers says that the “abolition of all national states [is] under a single world sovereignty”, and in “Hunter Patrol”, the political effort to unify the Earth (by the UN in that story, and after WWIII) is spearheaded by a “World Sovereignty party”. (Piper, *Worlds*, p. 100) So Beam could have called this piece of TF legislation the ‘World Sovereignty Act’. However, since he partly modeled the Terran Federation on the British Empire, this Act actually has a historical model; its true name could therefore be the ‘Act of Global Union’. See my paper “The Early Terran Federation” for more.

41. Piper, *Uller Uprising*, p. 64

42. Actually, an outer circle of latitude does remain. But this circle is really a point; 90 degrees north, the North Pole, distorted into a circle by the projection. This outer white circle was mainly kept for aesthetic reasons; the blue of Terra’s oceans had to be separated from the blue field of the flag. However, the circle can serve three purposes for the emblem’s symbolism. First, it is an echo of the white circles of latitude on the old UN/TF emblem, representing continuity. Second, it would recall the fact that the old ‘Northern’ Federation, whose emblem was centered on the North Pole, was the first to unite the whole world within its ‘ring’. And third, it would further emphasize the complete unity of Terra, by complementing the white continent of Antarctica at the center of the emblem. From the icecap of the North Pole to that of the South, Terra is one.

6. A Projection Problem

43. Contrast this with the current UN emblem, where it is South America, southern Africa, and Australia that are distorted longitudinally. With the result that South America appears larger than North America (the reverse is true), Africa seems almost as big as Eurasia (it is actually smaller than Asia alone), and Australia is larger than Europe (again the reverse of reality). However, this distortion does serve one good purpose: all the continents look more equal in size. A positive image for an organization that, theoretically at least, treats all member nations the same.

44. Java map projections of the world, by Henry Bottomley.

Azimuthal equidistant, <http://www.frg.rug.nl/intraweb/cursus/rw12/mapproj.htm>

Azimuthal equal area, <http://www.btinternet.com/~se16/js/mapproj.htm>

7. The Secession of Venus

45. Piper, *Four-Day/Lone Star*, p. 224 The story opens with a more aggressive attitude on the part of the Solar League, an interstellar democratic organization like the Terran Federation. The Department of Defense has been renamed the Department of Aggression, and the Security Coordinator, Natalenko, openly calls the new policy “imperialism” (ibid., p. 222). Also, Olga—apparently a diplomat working in the Secretary of State’s office—jokes to Stephen Silk that “your friends all want important posts in the Galactic Empire.” (ibid., p. 220) Add to this the fact that the planet New Texas is annexed by the end of the story, and the obvious conclusion is the League’s new expansionism could result in some sort of Galactic Empire. That would make the Solar League a parallel, or alternate version, of the Terran Federation, which in the THFH is succeeded by the First Galactic Empire. Indeed, like the Federation, the Solar League seems to be partly modeled on the British Empire. This is evidenced mainly by its Space Navy, whose officers include Space-Commander *Stonehenge*, and Fleet Admiral *Sir* Rodney Tregaskis. (ibid., pp. 245, 251, emphases added) It is also seen in the underlying scheme of historical models, which parallel those in the THFH. See my paper “A Study of *Lone Star Planet*” for a detailed analysis.

46. Carr, *Piper Biography*, p. 213

47. Piper, *Empire*, p. 22

48. Piper, *Four-Day/Lone Star*, p. 7

49. H. Beam Piper, *Space Viking* (New York, NY: Ace Books, 1963), p. 9, emphasis added

8. The Second Terran Federation

50. *Ibid.*, p. 13

51. Piper, *Four-Day/Lone Star*, p. 196

52. *Ibid.*, p. 193

53. Piper, *Space Viking*, p. 10

54. H. Beam Piper, *The Cosmic Computer* (New York, NY: Ace Books, 1963), p. 34

55. Piper, *Space Viking*, p. 150

56. Piper, *Federation*, p. 113

57. But if so, they are not quite right. In "Graveyard of Dreams", Conn Maxwell says that "if the System States had won, half of them would be at war among themselves now. Make no mistake about it, politically I'm all for the Federation." (*ibid.*, p. 197) Thus, the System States are not as keen on collective security through political unity as the Terran Federation, just as the Confederacy was a looser union than the Union. And this is supported by what happens to the Alliance's descendants who settle the Sword-Worlds. By the time of *Space Viking*, the phrase "half of them would be at war among themselves now" pretty much describes the disunited Sword-Worlds, which are intervening in each other's dynastic squabbles.

Unlike the Sword-Worlds, however, the System States were not feudal planets. So in the event of an Alliance victory, the interplanetary wars that would have followed would undoubtedly have started from other causes.

9. The Emblem in Evening

58. Piper, *Cosmic Computer*, p. 45

59. However, it may become the inspiration for emblems of the Sword-Worlds and their offspring, the Space Vikings. Again, see "A Flag for the System States Alliance".

60. Piper, *Cosmic Computer*, pp. 225-226

61. *Ibid.*, p. 241

62. Piper, *Federation*, p. 190

63. Piper, *Cosmic Computer*, p. 7

64. Since Piper seems to have modeled the System States Alliance on the Confederate States of America, this would parallel the Union's naval blockade of the Confederacy. "The Union blockade of the Confederate coastline became increasingly effective in the course of 1862. The US Navy used its command of the Hatteras inlet to mount a series of operations within the North Carolina Sounds which had sealed off this entire section of the coast by the beginning of the summer. Farragut's seizure of New Orleans gave the Union a commanding position in the Gulf; minor operations resulted in the capture of the old Spanish post at St. Augustine, Florida." (Colin McEvedy, *The Penguin Atlas of North American History* (New York, NY: Viking Penguin, Inc., 1988), p. 94) And by 1864, "Contact with the outside world had been lost as a result of the Federal Navy's ever-tightening blockade." (*ibid.*, p. 99)

The blockade put a heavy strain on the Southern economy, which was dependent on cotton exports. A Federation Space Navy blockade of the Alliance might have a parallel effect on the System States. The main difference being

that the Alliance is not a contiguous stretch of territory like the South, but planetary systems separated by vast stretches of interstellar space. The TF could potentially (and may ultimately) blockade every system of the Alliance, in a divide-and-conquer strategy. This would of course require a large number of Federation ships, and by the end of the Civil War, the US Navy had grown to “nearly 700 ships in commission—sixty-five of them ironclads”. (Nathan Miller, *The US Navy: A History* (New York, NY: Quill Books, 1990), pp. 143-144) We may assume that the Federation Navy undergoes a parallel massive expansion. This seems to be supported by the great number of interplanetary ships—“over a thousand”—found on Koshchei alone. (Piper, *Cosmic Computer*, p. 182)

The Confederacy tried to circumvent the blockade with ‘blockade runners’ and commerce raiders, so the Alliance may therefore do the same with hypership versions. Since the Federation is a universal state, the destination for Alliance blockade runners would probably be other System States planets, and a black market of smuggled goods may even develop with persons and businesses on some Federation worlds.

65. Piper, *Space Viking*, p. 12

66. Ibid.

67. If we leave out the former System States planets, which were already impoverished and devastated, it’s even worse. Subtracting the Alliance’s original 130 planets leaves the Federation with 370. At a guess, 300 of these are impoverished in the Interstellar Wars, 50 devastated, and 10 depopulated. This leaves 10 fully civilized planets, a survival rate of only 2.7 %. Adding these 10 to the 7 still-civilized Alliance planets gives us 17, or the not-quite dozen and a half mentioned by Harkaman.

And this assumes that all the still-civilized Alliance planets survive the Interstellar Wars intact, which is not very likely. Given the ratio of Federation to Alliance planets, the relative number of civilized survivors should be more like 12 to 5, or 13 to 4.

68. Piper, *Cosmic Computer*, p. 241 The book opens in autumn AE 894, and ends in autumn 896, so Merlin is apparently discovered in late 895 or early 896. Its calculations show that “the Federation would no longer exist” at a time “a trifle over two hundred years from now” (ibid., p. 226), so the TF disappears about AE 1097. This is confirmed by Piper, who says in “The Future History” that “The Terran Federation completely vanished by 1100 A.E.” (Carr, *Piper Biography*, p. 213) The precise date of AE 1097 is a deduction, based on one of Piper’s historical models; see my paper “Professor Chalmers—Piper’s Nostradamus”.

69. Piper, *Cosmic Computer*, p. 204

70. Piper, *Space Viking*, p. 36

71. Ibid., p. 56

72. Piper, *Empire*, p. 85

73. See my paper “Knights of Gram and Tanith” for the proposed Tanith emblem.

74. Piper, *Empire*, p. 86 Now, let’s really extend the metaphor. If we consider each universal state as a ‘day’ in Piper’s THFH, then there are six days, representing six universal states: the Terran Federation and Galactic Empires One through Five. The ‘nights’ of these days would be the dark centuries of barbarism between universal states; the interregnum periods. Each *full* ‘day’ would then include the universal state and its following interregnum. For example, the Terran Federation and the first Interregnum is the first day, the First Galactic Empire and the second Interregnum is the second day, and so on.

If Beam had lived to complete his ambition, writing one story for every century of his Future History, then one could say he labored to create a universe—or at least a Galaxy—over a six day period. When he was done, it would be the seventh day, so ‘on the seventh day, Piper would rest’.

Or is there a seventh day of labor after all? Beam’s Terro-Humanity evolves on Mars, and by the time of “Genesis”, the original Martio-Humans seem to have united the planet, making it a universal state of sorts. Terra is colonized before the ‘sun’ of Martian civilization sets, and the subsequent period of normal human history, between what I call Beam’s Martio-Human Past History (MHPH) and his Terro-Human Future History, would then be a *very* long night of barbarism—one hundred thousand years.

However, against this seventh day of labor idea it must be admitted that there is no evidence Piper planned to write any novels at all in the MHPH, let alone one per century. Though, to echo John Carr, “it would have been nice

to see him try.” (Carr, Introduction to *Federation*, p. xviii)

10. Conclusion

75. John F. Carr, Introduction to ‘The Return’, *Empire*, p. 181

76. See my paper “Piper’s System”, section Roman-Terran Parallels. The Roman eagle, minus the wreath, was adopted by several major successor states of the Roman Empire; notably the Holy Roman Empire (Germany) and the Eastern Roman (Byzantine) Empire. Also by a larger number of smaller states, such as Poland, Austria, and Serbia. These eagles come in a variety of colors and styles.

We may therefore suppose that the wreathed globe of Terra, minus the wreath, is adopted by several major successor planets to the Federation. The symbol of Marduk, one of the few fully civilized worlds left of the old Federation, and the founder of the First Galactic Empire, is a “crowned and planet-throned dragon”. (Piper, *Space Viking*, p. 212) Though undoubtedly representing Marduk, the planet of its emblem is in fact a continuation of the Terran wreathed globe, and possibly also of the System States emblem. A planet-based emblem would be a natural choice for any number of post-Federation planet-states, and would probably come in a variety of colors and styles.

77. Piper, *Empire*, p. 10

78. *Ibid.*, p. 222

79. In “The Future History”, Piper says that “The Keeper” takes place “about 30,000 years in the future”. (Carr, *Piper Biography*, p. 214) Until that was revealed, I thought the story took place only 5,000 years in the future. In “The Edge of the Knife”, Professor Chalmers can see “the history of the world, at least in general outline, for the next five thousand years.” (Piper, *Empire*, p. 21) I took this to mean that the THFH ended about 7,000 AD.

But that raised a problem. Near the end of *Space Viking*, Simon Bentrík says of the durability of universal states, “Then we’ll just have to make it work the best way we can, and when it breaks down, hope the next try will work a little better, for a little longer.” (Piper, *Space Viking*, p. 233) The Terran Federation lasts over a thousand years (c. AE 31 to 1097), and the First Galactic Empire lasts even longer (AE 1848 to sometime past 2936). So a 5000-year future history is totally inadequate to fit six universal states, each lasting over a thousand years, and longer-lasting than their predecessors, plus all the interregnum periods. Given the bare minimum of a thousand years for each period, six universal states and five interregna would equal 11,000 years.

Assuming the 5000 year quote is correct, then Professor Chalmers cannot foresee the entire THFH. The Federation and First Empire each last over 1000 years, as do their interregna, so 5000 years would only take us into the Third Galactic Empire, as John Carr appears to have deduced. (Carr, Introduction to *Federation*, p. xxv) That seems right, since Ed Chalmers is modeled on Nostradamus, and Nostradamus could only see a couple of thousand years into the future (again, see “Professor Chalmers—Piper’s Nostradamus”).

80. Java map projections of the world, by Henry Bottomley. <http://www.btinternet.com/~se16/js/mapproj.htm>

81. There would be no reason to keep the old Western and Eastern Hemispheres in the correct position, as by that far future time they are the cartographic convention of an extinct ancient culture. The division current on Fifth Empire Terra seems to be between the Southern and Northern Hemispheres, a division that paradoxically began after the ancient Fourth World War.

82. Piper, *Empire*, p. 217

83. Piper, *Worlds*, p. 170

84. Piper, *Empire*, p. 241

