A TIMELINE TO PIPER'S THIRTY DAYS' WAR



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1. Introduction

H. Beam Piper's version of WWIII, also called the Thirty Days' War, is mainly referenced in his story "The Edge of the Knife". Thus, the timeline in this paper largely concerns Professor Edward Chalmers, of Blanley College California, whose precognitions in the story are the source of this information. A few other references to the Thirty Days' War are found in such tales as "Omnilingual", *Four-Day Planet* and *Uller Uprising*, and a little further information is found in Beam's summary called "The Future History".

But since Professor Chalmers' precognitions are mostly about the time leading up to WWIII, there are some large gaps in the history of this period. These include the detailed course of the Thirty Days' War, and particularly its aftermath; from late 1974 to 1996, the years between "The Edge of the Knife" and "Omnilingual". Fortunately, however, Piper wrote other stories about WWIII; including "The Mercenaries", "Hunter Patrol" and "The Answer". Although these are not part of his main Terro-Human Future History (THFH), they offer some clues as to what may have occurred. As John Carr points out, nuclear war is one of Beam's main themes, and in his early works, "Piper is clearly working out some of the background he used in later TFH stories." ¹ So I believe that at least some of these non-THFH references to WWIII can be applied to the main Future History, and they have been included in the timeline below.

In order to keep the timeline from getting bogged down in too much information and speculation, however, I have relegated much of this to the endnotes, where I also analyze some of Piper's casual references and subtle connections. These include the sources for Prescott Hall and the spaceship *Kilroy*; the relationship between his characters Ed Chalmers, Allan Hartley and Fred Benson; the composition of the Politico-Strategic Planning Board (PSPB); the location of Northern State Mental Hospital; the number of casualties in the destruction of Reno, Nevada; the geographic extent of the Islamic Caliphate; Ed's real reason for getting himself committed to Northern State; when and why Britain joins the Terran Federation; and not least, the apparent errors and inconsistencies in Beam's dates in "The Edge of the Knife".

2. The Timeline

circa 1943 Chalmers in WWII. In the fall of 1973, Professor Chalmers muses that "It was an old M3, all right; Chalmers had used one of those things, himself, thirty years before, and he and his contemporaries had called it a "grease-gun." " ² Thirty years prior to 1973 is 1943, implying that Ed fought in WWII. It is unstated whether he served in the European or Pacific Theater; one would guess the Pacific, given his later teaching position at Blanley College, which is located "in the San Francisco area" of California. ³

circa Fall 1961 Chalmers begins teaching at Blanley College. On October 17, 1973 "Doctor Edward Chalmers" says that he's been on the faculty of Blanley "for the past twelve years". ⁴

circa 1961 to 1963 Chalmers participates in the campaign for tenure laws. The campaign takes place "in a time of public animosity toward all intellectuals". That Chalmers "took part in the struggle" ⁵ presumably means he was undaunted by this animosity. Probably because as an ex-G.I. who fought in WWII, he has faced far more violent opposition.

1963 The Higher Education Faculty Tenure Act. The struggle for tenure succeeds with the passage of this act, which establishes the "tenure-contract system". Professors have tenure-contracts with their college or university, which is signed by the dean. From this point on, no college or university professor can be forced to resign without sufficient cause being shown in a court of law. ⁶

It is not stated whether this is a state (California) or federal law.

before 1970 The first burrow-cities are built, the Philadelphia Project is secretly begun. The first "burrow-cities" are built in the Northern Hemisphere, due to the threat of nuclear weapons being used on civilian population centers. ⁷ And since the Cold War is a struggle for global dominance between capitalism and communism, the United States secretly begins the Philadelphia Project; an effort "to launch the first spaceship to reach the Moon and build the Lunar fortress that would insure world supremacy." Given that having a moon base is of such critical importance, the Soviet Union almost certainly establishes a parallel secret lunar project, possibly named the "Red Triumph Five-Year Plan." ⁸

Early January, 1970 Chalmers' precognitive ability appears. Professor Chalmers begins receiving knowledge about the future "just after New Year's, 1970." This latent psychic ability is appropriately triggered while he "was getting up a series of seminars for some of my postgraduate students on [the] extrapolation of present social and political trends to the middle of the next century." Chalmers "began to find that I was getting some very fixed and definite ideas of what the world of 2050 to 2070 would be like. [A] Completely unified world, [the] abolition of all national states under a single world sovereignty, colonies on Mars and Luna, that sort of thing." When he receives them, he knows that these future "memories" are true "as positively as I know Columbus discovered America in 1492." ⁹

Spring 1970 Foreknowledge of the *Kilroy.* A few months later, and "shortly before the end of the school term", Chalmers receives foreknowledge of the *Kilroy.* "Mind, this was before the first rocket landed on the Moon, when the whole lunar-base project was a triple-top secret. But I knew, in the spring of 1970, that the first unmanned rocket would be called the *Kilroy*, and that it would be launched some time in 1971...I knew about it over a year in advance." ¹⁰

Fall 1970 Chalmers begins writing down his precognitions. After receiving several items of future knowledge, and "after the fall opening of school", Professor Chalmers finally begins writing them down. A meticulous scholar, on each sheet he writes "the future date of occurrence" as well as "the date on which the knowledge...had come to him." Over time, this evolves into a system of file-folders organized by century; the Twentieth Century file containing notes such as that on the *Kilroy*, the Twenty-First Century file containing notes like the completely unified world of 2050 to 2070, and so on. These folders are all stored in a filing-cabinet "to the left of" Ed's desk in his apartment. ¹¹

Late Spring/Summer, **1971** *Kilroy* **on the Moon**. The unnamed rocket isn't "christened until the day before it was launched, when somebody remembered that old 'Kilroy-was-here' thing from the Second World War." The *Kilroy* mission is successful; "the landing of the first unmanned rocket on Luna." ¹²

circa later 1971/early 1972 Man lands on the Moon, the US Lunar base begins. A manned mission probably follows the unmanned *Kilroy* within a year, and "The United States Lunar base", a military facility which will house nuclear missiles, begins construction soon after that. Upon landing, the first American astronauts apparently claim "national sovereignty" over Luna, which seems to mean "the Moon is annexed to the" United States. The right of America to claim all of Luna is disputed by other nations, particularly those of the Eastern Axis. ¹³

circa May, 1972 Chalmers at Harvard, Penrose at Intelligence School. Professor Chalmers attends a convention at Harvard University; this is "a year and a half" before Khalid ib'n Hussein is assassinated in mid-November, 1973. ¹⁴ Possibly around this time, Lieutenant Hubert Penrose attends Intelligence School. In 1996, the now-Colonel doesn't specify the date, merely stating that it was "back before the Thirty Days' War". At the school, one of the things the young Lt. Penrose learns is how the Cretan Linear B script was deciphered through cryptanalysis. ¹⁵

circa Spring 1970 through Fall 1973 Incidents of Chalmers revealing his future knowledge. Over the three years and nine months after his precognitive ability appears, Chalmers inadvertently reveals his future knowledge on "a dozen" occasions to his students and other university personnel. Six of these are specified, including the complete destruction of Reno, Nevada "by an explosion and fire"; "the secession of Canada from the British Commonwealth"; "Operation Triple Cross, that saved the country during some fantastic war"; calling "the U.N. the Terran Federation", which is "some kind of a world empire"; "the revolt of the colonies on Mars and Venus"; and trying "to get a copy of Franchard's *Rise and Decline of the System States*, which wouldn't be published until the Twenty-Eighth Century, out of the college library." ¹⁶

That Chalmers has 12 of these events over 45 months means that he slips up, on average, three or four times a year, or more than once every semester. This causes him to get a reputation among his students for being "the history professor who live[s] in the future instead of the past." He is warned about these slips on at least one occasion by the dean of Blanley College, Lloyd Whitburn, who believes he is "merely showing the effects of overwork". He offers Chalmers a vacation, which Ed refuses to take. ¹⁷

circa late 1972, early 1973 Disputes over Luna, secret creation of the Terran Federation. As construction of the US moon base continues, the Eastern Axis begins demanding its "demilitarization and internationalization". Demilitarization because when completed, the fortress stocked with nuclear missiles will be a grave military threat to the Axis; internationalization because they reject America's right to control the whole Moon. These Eastern demands cause a "crisis" at the UN, which weakens that body. ¹⁸

The Politico-Strategic Planning Board, a "pretty hush-hush" group apparently composed of American scholars, military intelligence analysts and politicians, recognizes that the disputes over the US Lunar base could cause the United Nations to collapse. The PSPB therefore secretly designs "a proposed organization to take the place of the U.N. if that" happens, tentatively dubbing it the Terran Federation. ¹⁹

circa Summer 1973 The Islamic Caliphate begins. Creation of the Islamic Caliphate, a supranational organization which includes much of the Middle East and South Asia, and probably aims to unite the whole Islamic world. Its capital is Basra in southern Iraq. The Caliphate is established by "the pro-Western" Khalid ib'n Hussein, who becomes its first "leader", or Caliph. Khalid is "the greatest Moslem since Saladin", and is not only a "statesman", but "a wonderful man, and a fine scholar". It is therefore "surprising" that the Caliphate "was created by a man like" him, in a region where unifying leaders are usually conquerors, like Saladin.

On October 16, Professor Chalmers mentions the Islamic Caliphate as being "newly formed". That presumably means within the last few months. ²⁰

Monday, October 15, 1973 Khalid in Turkey, Tallal in England. Caliph Khalid is "in Ankara, talking to the President of Turkey." At this time, his son Tallal ib'n Khalid is "at school in England"; apparently meaning he is attending university there. ²¹

Tuesday, October 16, 1973 Chalmers prophesies the assassination of Khalid. On "October 16, 1973", while teaching his Modern History IV class in Prescott Hall, Professor Chalmers inadvertently reveals foreknowledge of the assassination of Khalid ib'n Hussein. He then goes on to provide many specific details about the event, before he realizes his mistake and stops talking. After class, he writes everything down, and then types up his notes, because this future "memory" is "all new and important". It includes the fact that "At very most, the Arab statesman had two and a half months to live", and that after the assassination, "Khalid's son, Tallal...would return [from England], and eventually take his father's place [as Caliph], in time to bring the Caliphate into the Terran Federation when the general [world] war came". ²²

Wednesday, October 17, 1973 Whitburn demands Chalmers' resignation. The next morning, Dean Whitburn summons Professor Chalmers to his office, and, because his most recent outburst is "the worst yet", requests his "immediate resignation". At the 'trial' of Chalmers a month later, he confirms the exact date. "Yes, I demanded this man's resignation on the morning of October Seventeenth, the day after this incident occurred." Though Whitburn previously believed that Ed was suffering from overwork, he now believes him to be mentally incompetent, if not downright insane.

Chalmers refuses to resign, citing his contract under the Higher Education Faculty Tenure Act of 1963. He then calls his attorney, Stanley Weill, and meets him for lunch. He reveals his precognitive ability to the startled Weill, who nevertheless agrees to defend him if the dean tries to void his tenure contract through the courts. But he cautions Ed against having any more precognitive slips, and suggests that he may be deluding himself about his ability; specifically his foreknowledge about the *Kilroy*. ²³

October 17 to mid-November, 1973 Chalmers in confusion. Ed fails to find his future history note on the *Kilroy*, which he was sure he'd written down. This forces him to face the possibility that Weill and Whitburn are right; he doesn't have a psychic ability, he's suffering from a "delusion". He vacillates "between conviction of the reality of his future knowledge and resolution to have no more to do with it", and suppresses more information about the Thirty Days' War which comes to him. On two occasions he even decides "to destroy all the notes he had made" about the future, though he fails to actually do so.

After that Chalmers tries, "not always successfully, to avoid drifting into "memories" of the future". He has more and more trouble sleeping, and attempts to compensate by drinking more and more heavily.

And he neglects reading the newspapers. By the end of this month-long period, Ed is "tired and unrefreshed" and "edgy from the strain." He is so detached from the real world that he thinks that it's "mid-April, 1973", rather than mid-November, and his memories of the future have become confused. ²⁴

circa Tuesday, November 13, 1973 Khalid ib'n Hussein is assassinated. Just as Chalmers predicted "a month ago", Caliph Khalid is assassinated "while leaving the Parliament Building [in Basra], by an Egyptian Arab named Mohammed Noureed, with an old U.S. Army submachine-gun. Noureed killed two of Khalid's guards and wounded another before he was overpowered. He was lynched on the spot by the crowd; stoned to death." Though ostensibly a religious fanatic, Noureed "was inspired, at least indirectly, by the [atheistic] Eastern Axis."

The news reports supply details not included in Chalmers' prediction; including that the assassination occurred in the "early afternoon, local time", that Khalid was leaving Parliament "for his palace outside the city", that the gun was "an old M3" (known as a "grease gun" in WWII), and that the surviving guard was wounded "seriously". ²⁵

Chalmers recovers, but more troubles. The assassination of Khalid confirms that Ed is not deluded, and quickly brings him back from his detached and confused state. ²⁶ Unfortunately, the college psychology professor, Leonard Fitch, gives the story to the *Valley Times*, and it is picked up and broadcast by the national TV networks. Fitch also calls "the secretary of the American Institute of Psychology and Parapsychology...He advised me to give the thing the widest possible publicity", in order to "advance the recognition and study of parapsychology."

The publicity forces Dean Whitburn to hold a press conference, in which he denies that Chalmers predicted Khalid's death, saying the whole thing is a hoax by his students, and that Ed is crazy anyway. Thus, although Chalmers has been vindicated, the spectacular nature of his successful prediction reignites his problems with Dean Whitburn, and brings him to the attention of the press, the general public, and noted scientists. He thought his troubles were over, but "the trouble, it seemed, was only beginning. And with the newspapers, and Whitburn, and Fitch, it could go on forever..." ²⁸

The Middle East in chaos, the United Nations begins collapsing. Overseas, the murder of Khalid touches off a "period of anarchy in the Middle East", which Ed knows will be "much briefer, and much more violent, than he had previously" foreseen. "The revolt at Damascus would break out before the end of the month; before the end of the year, the whole of Syria and Lebanon would be in bloody chaos, and the Turkish army would be on the march."

Another consequence of Khalid's death, which "was necessary to the policies of the Eastern Axis", is that "it 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". The UN presumably collapses over the next few months, disappearing in late 1973 or early 1974.

circa Wednesday, November 14, 1973 The 'trial' of Chalmers. The next morning, "A delegation from the American Institute of Psionics and Parapsychology" arrives at Blanley, after taking "a strato-plane from the East Coast." One of them is an Army major with the CIA; Chalmers thinks he's "really in for it", if the Federal Government is getting involved. Also, a committee of college trustees arrives about noon and investigates the matter, then summons Chalmers to attend a meeting in Whitburn's office that evening.

The meeting, which additionally includes the AIPP members, Professor Pottgeiter and Ed's attorney Stanley Weill, is raucous; and when the Dean insults "gentle, learned old Pottgeiter", Chalmers reaches his breaking point. Over his attorney's objections, Ed agrees to be psychiatrically tested, declaring that when he passes the test and proves his sanity, he will sue Whitburn. The examiner will be Doctor Hauserman, the California state psychiatrist, who practices at Northern State Mental Hospital. ³⁰

circa Thursday, November 15, 1973 Tallal arrives in Iraq, Chalmers examined by Hauserman. Tallal ib'n Khalid flies from England to Iraq; "perhaps he had already left the plane to seek refuge among his father's Bedouins." About noon, Dr. Hauserman likewise reaches his destination by air, arriving in the Blanley area via his private plane. He meets with Chalmers at 2 pm in the psychology department of the college, and the examination involves a combination of questions and discussion. Ed experiences some

difficulty because he is receiving more future "memories" as he speaks, but is able to talk around them and convince Hauserman that he is sane.

But when Hauserman reveals that he had been prepared to commit Chalmers to Northern State, Ed sees the answer to all his troubles. He knows that WWIII will occur in "a little under a year", and that "Blanley College was at the center of one of the areas which would receive the worst of the thermonuclear hell to come". But he also knows that Northern State is located "on the other side of the mountains, in the one part of the state completely untouched by the H-bombs of the Thirty Days' War." Chalmers then pretends to go on a rant about being a universal, space-time traveling spirit who has actually seen the events he has written about and predicted; from the French Revolution two centuries in the past, through the murder of Khalid in the present, and into the far future where he has "seen empires rise and stretch from star to star across the Galaxy, and crumble and fall." Dr. Hauserman decides that Ed has had "a severe psychological breakdown", and commits him to Northern State after all. ³¹

Weill leaves, Pottgeiter still believes. When Stanley Weill is informed of Hauserman's decision, he catches a five o'clock flight for Reno, Nevada; probably convinced that Ed is suffering from "a classical case of systematized schizoid delusion". Professor Pottgeiter is "anguished" at the result, but he still believes in Chalmers. Ed tells Max that when the Turks annex Syria and Lebanon, he is to leave Blanley College for Northern State, and to bring Marjorie Fenner with him. Along with all of Chalmers' future history notes, from the file cabinet in his apartment. ³²

circa Friday, November 16, 1973 Reno destroyed. The city of Reno, Nevada is completely destroyed "by an explosion and fire" when "a trainload of high-explosives in the railroad yard" detonates. It is "the biggest non-nuclear explosion since the *Mont Blanc* blew up in Halifax harbor in World War One", and Reno is "literally wiped off the map." Stanley Weill is one of the casualties in this disaster, which may total many tens of thousands. In 1973, Reno's population was about 81,230. 33

Late November, 1973 "The revolt at Damascus would break out before the end of the month." Like the assassination of Khalid in mid-November, the Damascene revolt in late November may be inspired or even funded by the Eastern Axis. For the uprising appears designed to take advantage of the now-leaderless Caliphate, and break that recently-created, pro-Western state apart. Syria was a traditional Soviet client, making it a good place to start. 34

circa early December, 1973 Beirut sacked. Soon after the Damascus revolt breaks out, "the sack of Beirut" occurs. The perpetrators are not specified, but since Ed describes this period as "interfactional power-struggles", the sackers are most likely a Lebanese faction from outside Beirut (Moslem, Christian or Druze), or possibly invading Syrians. ³⁵

circa mid-December, 1973 The Saudi-Jordan War begins. Though Khalid has been slain, his son Tallal does not immediately become Caliph after him. If the Arabian peninsula is part of the Caliphate, "[T]he war between Jordan and Saudi Arabia" may therefore be over which dynasty will now run that organization, and would be one of the "interfactional power-struggles". Khalid ib'n Hussein and his son Tallal ib'n Khalid appear to be Hashemites, which provide(d) the royal families of Jordan and Iraq, and originally ruled Mecca and Medina. But after WWI, the Hashemites were forced out of the Arabian peninsula by ib'n Saud, the founder of 'Saudi' Arabia. ³⁶

Late December, 1973 General war in the Middle East, Turkish Intervention. "[B]efore the end of the year, the whole of Syria and Lebanon would be in bloody chaos", "There would be general war in the Middle East", and "The Turkish army would move in and try to restore order." The leaderless Caliphate appears to be tearing itself apart.

circa Winter, 1974 The United Nations collapses, the Terran Federation is organized. The general war in the Middle East may be the final blow to the quickly-declining UN. Having failed to resolve the "disputes as to national sovereignty over, and militarization of, Luna", not to mention its failure to attain world peace and collective security, the United Nations completely dissolves. The United States then

announces the creation of a new global body, to be called the Terran Federation. Diplomatic efforts begin to recruit members, with initial successes likely among key American allies such as West Germany and Japan. These are major nations close to the Eastern Axis, and therefore on the front lines of any potential conflict between the communist East and democratic West. 38

Although a staunch US ally and partner in their 'special relationship', Great Britain, traditionally a great power and leader of its own supranational organization, the British Commonwealth, declines to join the Federation at first. So, apparently, do all the nations below the equator, as "the Southern Hemisphere managed to stay out of the Third and Fourth World Wars". ³⁹ And since the Terran Federation is created and led by the United States, the nations of the Eastern Axis undoubtedly refuse to join. Though in truth, these militaristic, totalitarian states are probably not invited.

Federation capital and flag. With the collapse of the United Nations, its headquarters in New York City are presumably vacated. But since Major Cutler says that the Terran Federation will "take the place" of the UN, the new TF may simply occupy the old UN site. Rather than leaving the buildings empty, and sending the large number of diplomats and employees elsewhere, it would make more sense for those nations intending to join the new organization to keep their people where they are.

This is supported by the fact that the Federation's flag is a "wreathed globe" on a "light blue" field, also described as "a neat rectangle of blue bunting emblazoned with the wreathed globe of the Terran Federation". The implication is that the new TF simply appropriates the old UN emblem as its own. ⁴⁰ Taking its flag may therefore be matched by taking its headquarters, and the first capital of the Terran Federation is most likely New York City.

Peace in the Middle East, the Turks annex Syria and Lebanon. The brief but violent and general war in the Middle East is probably over before spring. The revolt at Damascus is put down by the Turks, who also restore order to Lebanon. Chalmers does not reveal who wins the war between Jordan and Saudi Arabia, but since Tallal is apparently still not the head of the Caliphate, it may be a Saudi victory, or at least a draw. This could force Tallal to bide his time, still claiming the title of Caliph, which may be opposed by a Saudi claimant.

Possibly around this time, the Turks officially annex Syria and Lebanon. 'Caliph' Tallal presumably acquieses to this, as the price of Turkish help in restoring order to the Caliphate. But though peace returns, it doesn't last very long. For only about seven months later, Chalmers knows that "the general [world] war, so long dreaded, would come". ⁴¹

circa Spring, 1974 Pottgeiter and Fenner leave Blanley. After hearing of the annexation of Syria and Lebanon by Turkey, Professor Pottgeiter follows Ed's advice and makes plans to leave Blanley College. Given his advanced age, the most logical excuse for leaving is that he intends to retire. But any reason would certainly do for Dean Whitburn, who considers Pottgeiter "a doddering old fool" who's "as bad as Chalmers"; the crazy professor he successfully got committed to Northern State Mental Hospital. 42

One would presume that Max finishes teaching his Winter semester classes, and leaves Blanley for the Northern State area in early May, 1974. Along with his own personal effects, Pottgeiter brings Chalmers' future history notes from his file cabinet. He also brings Marjorie Fenner, who already has to keep a close eye on the elderly, absent-minded professor. She probably resigns her position at Blanley, helps Max move, and becomes his personal secretary and general caregiver in his retirement. 43

circa June, 1974 Uprising in Azerbaijan. "[B]efore the middle of the next year", or prior to July 1, 1974, there is "an Eastern-inspired uprising in Azerbaijan". This means the part of Azerbaijan in northwestern Iran (a nation presumably part of the Islamic Caliphate), not the Azerbaidzhan S.S.R., a member of the Soviet Union, and therefore already part of the Eastern Axis.

circa Summer, 1974 Tallal takes his father's place. Around this time, eight or nine months after his father is assassinated, Tallal ib'n Khalid finally becomes head of the Islamic Caliphate. The presumed rival Caliph, a Saudi claimant, therefore doesn't last very long. Chalmers' foreknowledge that Tallal takes Khalid's place "in time to bring the Caliphate into the Terran Federation when the general war came" suggests that he becomes Caliph not long before WWIII begins in mid-September, 1974. ⁴⁵

Mid-September, 1974 The invasion of Bangladesh, the Thirty Days' War begins. "[B]efore autumn, the Indian Communists...make their fatal attempt", and invade Bangladesh; "the Thirty Days' War would be the immediate result." ⁴⁶ This overt military action, which touches off WIII, therefore parallels how the overt German invasion of Poland in 1939 triggered WWII.

If it is still East Pakistan, the invasion of Bangladesh may be the same as "the invasion of Pakistan" mentioned by Prof. Pottgeiter. ⁴⁷ But if not, it means the Indian Communists also invade (West) Pakistan, a further example of the wars between these two countries since their independence in 1947. ⁴⁸

Tallal ib'n Khalid brings the Islamic Caliphate into the Terran Federation. With the coming of the general war, Caliph Tallal doesn't just side with the Terran Federation, he brings his whole supranational organization into that US-led body. This reveals the Caliph to be a pro-Western leader like his father, Khalid. Tallal may therefore be well aware that the Eastern Axis is responsible for the murder of his father (the first Caliph), the revolt at Damascus, the uprising in Iranian Azerbaijan, and in general for all the problems of the Islamic Caliphate during its short history. The overt invasion of Bangladesh could then be the final straw, particularly if that Moslem nation is a member of the Caliphate.

circa mid-September to mid-October, 1974 WWIII; the Thirty Days' War.

Opposing sides. The Thirty Days' War pits the nations of the Terran Federation, led by the United States, against those of the Eastern Axis, led by the Soviet Union. This parallels the opposing alliance systems which fought in previous world wars. But WWIII only involves the Northern Hemisphere, since as stated, "the Southern Hemisphere managed to stay out of the Third and Fourth World Wars". The major powers would then be the US, West Germany, Japan and the Islamic Caliphate, versus the USSR, Red China and India. Other Federation nations probably include America's allies such as France, Italy, South Korea and the Republic of China (Taiwan). Other Axis nations probably include the Warsaw Pact countries, Mongolia, North Korea and North Vietnam.

Although Great Britain does not yet join the Terran Federation, it almost certainly sides with its American and Western European allies. In "Hunter Patrol", some soldiers among the UN forces fighting the Pan-Soviets in WWIII include the "British—Argyle and Sutherland Highlanders, advertising the fact by inconspicuous bits of tartan on their uniforms." Another soldier on the UN side is a Spanish officer, which may indicate that Spain is another member of the Federation in WWIII. ⁵⁰

Eastern Axis sneak attack. As the Thirty Days' War begins, the Eastern Axis launches the long-feared 'nuclear Pearl Harbor'. A sneak attack on the United States with atomic weapons, presumably delivered via a combination of "Soviet...bombers and guided missiles." This may be coordinated with massive ground offensives, as "Hunter Patrol" mentions "the dark days when the allies had everywhere been reeling back under the Pan-Soviet hammer-blows". At the time of the Eastern Axis' sneak attack, "the Lunar Base would be completed and ready; the enemy missiles would be aimed primarily at the rocketports from which it was supplied." ⁵³

One's 'primary' target is by definition the most important, and the purpose of attacking the rocketports would be to cut the Lunar Base off from its American sources of supply. A 'divide and conquer' strategy. Lacking resupply, the US base could then be starved into submission, or perhaps conquered by a Soviet space force. If successful, either method would result in the Moon turning Red, with "the Lunar fortress that would insure world supremacy" passing from the Terran Federation to the Eastern Axis.

However, aimed 'primarily' also means that some of "the missiles of the Eastern Axis would fall" on *secondary* targets. ⁵⁴ These should include American military installations and population centers. And from Chalmers, we know that California is hit hard with "the H-bombs of the Thirty Days' War". ⁵⁵ But since Ed seems to believe the future events he foresees can't be changed, he probably doesn't warn anyone of what's about to happen. Thus, "all the millions of other deaths that would follow" the outbreak of war ⁵⁶ may well include Dean Whitburn, Leonard Fitch and Tom Smith; Mr. Guellick, Mr. Kendrick and Mr. Dacre; and most if not all of Chalmers' and Pottgeiter's other former colleagues and students.

Operation Triple Cross saves the country. Since the San Francisco area is hit hard, the Los Angeles area undoubtedly is, as well. In fact, many of the major US cities and ports—including "New York and Washington and Detroit and Mobile" ⁵⁷—are probably nuked by the missiles of the Eastern Axis.

But even though "the United States would suffer grievously" under this bombardment, the fact that the US Lunar Base is "completed and ready" means that the Soviet sneak attack does not have the intended effect. For, "Delivered without warning, it should have succeeded—except that every rocketport had its secret duplicate and triplicate. That was Operation Triple Cross…The enemy would be utterly overwhelmed under the [retaliatory] rain of missiles from across space". ⁵⁸

Utterly overwhelmed should mean that the enemy (the Soviet Union, or perhaps the whole Eastern Axis) is devastated and completely defeated, just as Germany and Japan were at the end of WWII. Thus, although wounded grievously (as Britain was in WWII), the United States survives, and indeed is victorious. "Operation Triple Cross...saved the country", just as Chalmers foresaw. And with at least some of the secret US rocketports intact, the Axis attempt to cut America off from its Lunar base fails. In mid-October of 1974, the United States, under the aegis of the Terran Federation, and still in control of its "military base on the moon", achieves world supremacy and becomes the sole superpower. ⁵⁹

Mid-October through December, 1974 Immediate postwar. Chalmers provides few details of the postwar world, but Beam's other stories give us clues. Ed's statements suggest that if not for Operation Triple Cross, America would have lost WWIII; and in "Hunter Patrol", the UN almost loses it as well. "We damn near lost the war, but for once, we won the peace. The Soviet Bloc was broken up—all the Satellite States. Most of them turned into little dictatorships, like the Latin American countries after the liberation from Spain, but they were personal, non-ideological, generally benevolent, dictatorships, the kind that can grow into democracies, if they're given time." ⁶⁰

We can therefore deduce that the victorious Federation orders the defeated Soviet Union to be completely dissolved; its constituent socialist republics gain their independence. Though less certain, the Federation may do the same with Red China, which could lose control over its non-Chinese autonomous regions such as Inner Mongolia, Sinkiang and Tibet. This probably depends on whether the Nationalist Chinese on Taiwan reassert control over the mainland. If they do, they would likely take a dim view of Federation proposals to cede any of 'their' territory.

These losses would echo those suffered by the losing powers in the previous world wars. The Austro-Hungarian and Ottoman Empires were completely dissolved after WWI (paralleled by the dissolution of the Soviet Union); Germany lost some territory at the same time, and lost more after WWII; and after 1945 Japan lost all its non-Japanese possessions, including Korea and Manchuria (possibly paralleled by Red China).

This brings us to India, which "is not a nation, but a civilization." Communist India could possibly be split along ethno-linguistic lines into northern and southern halves, perhaps with the Sikhs of the Punjab finally achieving their goal of an independent Khalistan. ⁶¹ This would parallel the division of Germany into two states after WWII. However, that division was the result of rival allies (the US and USSR), which became enemies after the war. After WWIII, there are no rivals, as Piper implies that the Terran Federation encompasses the whole world. Moreover, India is a peninsula, and the junior member of the Eastern Axis, after the USSR and Red China. It therefore seems to parallel Italy, a peninsular nation which was once the junior member of the Axis powers, after Nazi Germany and Imperial Japan. Fascist Italy was not dismembered after WWII, so India probably remains intact after WWIII.

Mid-October 1974 to circa 1984 Postwar recovery. Although it achieves world supremacy, and its communist enemies have been devastated, defeated and (at least in the case of the USSR, completely) dismembered, many of America's major cities are in radioactive ruins. Almost certainly in worse shape than the ruined cities of Europe and Asia after WWII. This includes Hiroshima and Nagasaki, which were only hit with A-bombs, not H-bombs. In fact, many of the same Eurasian cities are probably destroyed again, in the atomic carnage unleashed by the Eastern Axis' sneak attack and the Terran Federation's retaliatory strike.

In California, the town near Northern State Mental Hospital becomes a military headquarters, and is the center for all the rescue work in that state. ⁶² Former professors Ed Chalmers and Max Pottgeiter, along with Marjorie Fenner, probably assist in these efforts; possibly at the hospital itself. The recovery apparently proceeds fairly quickly, for as John Carr says, "by 54 A.E. (1996 A.D.) civilization had reasserted itself sufficiently enough to mount a major archaeological expedition to Mars". This is a mere twenty years after the first all-out Atomic War. ⁶³ We also have to take into account that, prior to going for

Mars, the US and other major TF nations probably continue with the exploration and colonization of Luna, from 1975 to 1995.

And a quick recovery from WWIII also occurs in "Hunter Patrol". "The war ended three years [later]... There was a momentary faltering of the economy, and then the work of reconstruction was crying hungrily for all the labor and capital that had been idled by the end of destruction. There was a new flood-tide of prosperity..." ⁶⁴ It is probably not that easy for America to recover in the THFH, but one would guess that it is greatly aided by a number of huge shelters excavated and constructed underground. These are the "burrow-cities...built in the Northern Hemisphere of Terra" before 1970. How much they help the US recovery effort depends on how many there are, how much technology and equipment they contain, how many people they shelter and how skilled these people are. A 1950s study concluded that, with an all-out Civil Defense construction effort, the US could save up to 86% of its population in a nuclear war. This would be accomplished by building massive shelter complexes beneath every major American city.

Moreover, assuming these burrow-cities are true cities, like the ones in *Four-Day Planet*, then they would possess facilities like factories, food processing and water purification plants, hospitals and libraries. Recovering from the war would be largely a matter of clearing away all the rubble, burying the dead and rebuilding the surface cities. With the added task of decontaminating these areas of remnant radioactivity. That should be possible to some extent, since after WWII Japan was able to decontaminate the sites of Hiroshima and Nagasaki.

However, the more powerful H-bombs of WWIII probably mean that some areas will have to be abandoned. In "Hunter Patrol", the site of the old UN headquarters in New York City is "still hot" fifty years after WWIII. ⁶⁶ The likely result is that the major cities close off these hot zones, possibly burying them under tons of rock and/or concrete (as in "Flight from Tomorrow" ⁶⁷), and surround them with a protective buffer area. Then they simply build outward, annexing tracts and suburbs along their outer perimeters.

circa 1975 to 1990 Global unification. After its victory in the war, the Terran Federation becomes "some kind of a world empire." ⁶⁸ This seems to mean that the whole world is brought into the US-led Federation not long after WWIII; a parallel, and improvement on, how most nations joined the UN soon after WWII. Assuming they did not join before the Thirty Days' War, the Southern Hemispheric nations of South America, southern Africa and Oceania become part of the Federation after the war.

In the Northern Hemisphere, the Federation's erstwhile foes—particularly Russia and China—are probably occupied after the war, just as Germany and Japan were after WWII. India may be briefly occupied, as well. In another parallel with the old Axis powers, their democratization probably follows. In *Crisis in 2140 A.D.*, postwar Russia has a parliamentary system, with many political parties. ⁶⁹ In the case of Red China, this could entail the return of the Nationalist Chinese government from Taiwan, which gets its revenge on the Maoists and reunifies the country at last. Other reunifications probably occur at the same time. These would include North Korea and North Vietnam, liberated by TF forces from democratic South Korea and South Vietnam; and East Germany, liberated and reunified with the western Federal Republic.

Since all the democratic halves are probably TF members already, the formerly communist halves would enter the Federation by default. In Europe, the end of the Warsaw Pact and dissolution of the USSR would mean that the Federation gradually withdraws its occupation forces, and admits about 20 new members in eastern Europe and central Asia.

Considering that they were "utterly overwhelmed under the rain of missiles from across space", the former Eastern Axis members may additionally be persuaded to join the Federation because of the fearsome power of the US lunar fortress. Any reluctance on their part could be met with American 'suggestions' that they would be wise to join, essentially holding the lunar gun to their heads. Along with this 'stick' to threaten them with, the Americans have a 'carrot' to dangle. Because another incentive to join would be the fact that the US and TF control Luna. It is probable that only TF members are allowed to land, explore, create colonies, and begin to develop and exploit lunar resources. Resources with the potential to help these nations recover from the recent war.

At the very latest, global unification under the Terran Federation occurs before 1996 (AE 53). Because when the Cyrano Expedition travels to Mars in that year, it has an international crew; with named members including many Anglo-Americans, a French-Canadian, a Japanese, a Turco-German, a

German, an Anglo-Russian and a Hispanic. And that's only seventeen members out of "fifty-odd men and women". The other thirty-five or so are probably a similar mix of various nationalities, with an Anglo-American majority.

In addition to the international crew, the reporters on board represent the Trans-Space News Service and the Pan-Federation Telecast System. ⁷¹ Not national news services such as the BBC or NBC. The chief archaeologist, Selim von Ohlmhorst, was selected by "The Federation Government", not by any national government; and Tony Lattimer mentions bringing their Martian discoveries to the attention of "the [Terran] public, and to the universities and the learned societies, and to the Federation Government." ⁷² Bringing them to the attention of *national* governments isn't on the list. Not even the US government, which founded and leads the Terran Federation.

Furthermore, almost half of the named personnel (7 out of 17) are given military rank. "Colonel Hubert Penrose [is] the Space Force CO". Though not made explicit, this almost certainly means the Terran Federation Space Force. One of Col. Penrose's subordinates is Lieutenant Sachiko Koremitsu from Japan, who hopes to find Martian "picture language-books, the sort we use in the Service", where the pictures "explain their captions". The Federation military probably uses these books because it has to integrate soldiers from many different nationalities, speaking different languages. An international yet unified expedition is also indicated by the names of the ships; the *Cyrano* is named for a Frenchman and the *Schiaparelli* for an Italian.

This suggests that after WWIII, the Federation does indeed become "some kind of a world empire". Unlike the United Nations, it encompasses the whole world; in fact, two worlds, Terra and Luna. And unlike the old UN Security Council, which was subject to the whims of its members' governments, the Federation Government is superior to those of its member states. Another change, and a crucial one, is that the Federation has its own military to enforce its global authority.

Early Federation composed of nation-states. Yet we know that nation-states still exist, and in fact make up the early Federation, much like the United Nations before it. In "The Future History", Piper says that after the Cyrano Expedition, there are "Further explorations of Mars, Venus, Asteroid Belt and Moons of Jupiter. [The] First Federation begins to crack under strains of colonial claims and counter-claims of [its] member states." ⁷⁴ So by "some kind of a world empire", Piper apparently means that all nations belong to the Federation, but they still possess much autonomy. This would certainly make it easier for the leaders and peoples of these countries to accept the loss of some of their sovereignty entailed by joining the new global organization.

Thus, the main difference between the UN and TF seems to be that the Security Council of the old United Nations, which was subordinate to its members' national governments, is replaced by a global Federation Government in which nations are subordinate. This is the case in "Hunter Patrol", in which after WWIII "the United Nations rules the world", and nation-states have been demoted to mere states of the global union. "What goes on in the Ukraine or Latvia or Manchuria is about analogous to what went on under the old United States government in, let's say, Tammany-ruled New York." The idea is also found in *Crisis in 2140*, where "the Reunited Nations" is seemingly of global extent, but nation-states such as Nepal and Israel still exist.

In the latter story, they even seem to retain much autonomy. The Nepalese still possess their own air force, whereas in a completely unified world, the only military forces should be those of the Reunited Nations. And Israel is still having border clashes with the Arabs, which even the global RN, which presumably 'rules the world', can't put an end to. ⁷⁶

Federation capital. Chalmers (and Piper) never states where the Terran Federation locates its headquarters. We've seen that when the new organization "take[s] the place of the U.N." in 1974, it probably appropriates the old UN buildings in New York City. But we've also shown that New York is almost certainly H-bombed in the Thirty Days' War, less than a year later. This would necessitate the Federation finding a new capital city. And in "Hunter Patrol", that's exactly what happens.

"See, New York was bombed flat. Where the old UN buildings were, it's still hot." So, "The UN chose St. Louis for its new headquarters—many of its offices had been moved there after the bombing of New York—and when the city by the Mississippi began growing into a real World Capital, the flow of money into it almost squared overnight." The story even gives excellent reasons for choosing that

particular city. "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 most likely to stay that way." ⁷⁷

As a global organization created and led by the United States, in which America is the sole superpower, and moreover possesses a missile base on the Moon that guarantees world supremacy, it would make perfect sense for the Terran Federation's capital city to be located in the heartland of North America. ⁷⁸

circa 1990 Great Britain joins the Terran Federation. The final holdout to the new world order is the United Kingdom. "Britain was a great nation, once; the last nation to join the Terran Federation, in the Third Century pre-Interstellar." The reasons for Britain's reluctance are not given, but are possibly related to its status as head of its own supranational organization—the Commonwealth of Nations. But even before WWIII, the Commonwealth is fading, if not collapsing. First, when the Indian Communists achieve power, presumably in the late 1960s, they undoubtedly withdraw from the Commonwealth (which they would consider a 'neo-Imperialist' organization), and join their country to the Eastern Axis. Second, since we know that the Southern Hemisphere stays out of WWIII, Britain's Commonwealth allies like Australia and New Zealand fail to come to her aid, unlike in the previous world wars. And third, "the secession of Canada from the British Commonwealth" apparently occurs near the end of the Thirty Days' War. ⁸⁰

Canada probably leaves the Commonwealth to join the American-led Federation, since they have even closer ties to the United States than with the United Kingdom. ⁸¹ This is probably also the case with Australia and New Zealand, who join the Federation soon after WWIII, just as they joined the UN right after WWII. And after a possibly brief period of occupation after the Thirty Days' War, India probably does not rejoin the failing Commonwealth, hitching its star instead to the rising Federation.

Apart from Nigeria, this leaves post-WWIII Britain with no Commonwealth allies of consequence. Indeed, the fact that Britain is "the last nation to join" implies that it is entirely alone; every other nation has left the Commonwealth for the Terran Federation. When Britain was the greatest empire in the world during the Nineteenth Century, the British were able to hold themselves aloof from Continental alliances, in their famous attitude of 'Splendid Isolation'. But after WWIII, Britain becomes increasingly isolated. Sooner or later, perhaps even within a decade, the atomic war-ravaged island yields to the inevitable, and joins the global, American-led Federation. ⁸²

Late 1974 to 2049 The New World Order. The 'new world order' established after WWIII therefore begins with the Terran Federation in control of Terra and Luna, and headquartered in North America. It lasts roughly from late 1974 (AE 31) until 2049 (AE 106), a period of 75 years. This last quarter of the Twentieth Century, and first half of the Twenty-First, involves the peaceful expansion of Terro-Humanity throughout the Solar System, by supranational (Federation) and national actors. Beginning with the Cyrano Expedition to Mars in 1996, which is under the aegis of the Federation Government and accompanied by the Federation Space Force; and then expeditions to "Venus, Asteroid Belt and [the] Moons of Jupiter", probably involving both the Federation and major member nations.

Although not mentioned by Piper, this period may herald the appearance of the first chartered companies, which are given incentives to establish colonies and exploit resources on various bodies of the Solar System. ⁸³ Further known expansion includes the construction of burrow-cities on "Mercury Twilight Zone and Titan", which may likewise involve multiple organizations. ⁸⁴

This world order ends in the mid-Twenty-First Century, when the Fourth World War (AE 106-109, or 2049-2052 AD) causes the "Complete devastation of [the] Northern Hemisphere of Terra." ⁸⁵ Also referred to as "the end of civilization in the Northern Hemisphere and the rise of the new civilization in South America and South Africa and Australia," it is the new Southern civilization that creates the "Completely unified world, abolition of all national states under a single world sovereignty", foreseen by Professor Chalmers more than eighty years before, in early 1970. ⁸⁶

ENDNOTES

1. Introduction

1. John F. Carr, Introduction to Federation (New York, NY: Ace Books, 1981), pp. xxiv, xxv

2. The Timeline

- 2. H. Beam Piper, Empire (New York, NY: Ace Books, 1981), pp. 30, 37, 38, 41
- 3. Fighting in the Pacific and then settling on the West Coast would mirror Piper's character Major Fred Benson, who serves across the Atlantic and then settles on the East Coast. In "Hunter Patrol", after fighting the Pan-Soviets in the Turkish Theater of WWIII (specifically Armenia), Fred returns to the New York City area to teach "high school juniors the difference between H₂O and H₂SO₄." (H. Beam Piper, *The Worlds of H. Beam Piper* (New York, NY: Ace Books, 1983), pp. 80, 96)

His brief mention of "thirty years before" also connects Ed Chalmers with Allan Hartley. Thirty years before "The Edge of the Knife", Chalmers fought in WWII (1943), and is now living on the verge of WWIII (1973). And in "Time and Time Again", Captain Allan Hartley is killed in WWIII (1975), but his soul travels back in time thirty years near to the end of WWII (1945). (ibid., pp. 9, 10, 12, 14, 15, 21) Another connection is knowing the future. Chalmers' precognitive ability allows him to know many details of the events leading up to and during WWIII before they happen, and he even thinks of them as "memories" (Piper, *Empire*, p. 15). While in 1945, the young-again Allan Hartley actually *remembers* everything about the next thirty years, including WWIII until his death. Hartley is therefore a space- and time-traveling spirit, having died in the Battle of Buffalo in 1975 and awakening in his 13-year old body in Williamsport Pennsylvania in 1945. Similarly, Ed Chalmers claims to be a space- and time-traveling spirit who has actually witnessed the events he has written about and predicted. "You—confine *me*, anywhere? Confine an old history professor's body, yes, but that isn't me. I'm universal; I exist in all space-time. When this old body I'm wearing now wrote that book on the French Revolution, I was in Paris, watching it happen, from the fall of the Bastillle to the Ninth Thermidor. I was in Basra, and saw that crazed tool of the Axis shoot down Khalid ib'n Hussein—and the professor talked about it a month before it happened. I have seen empires rise and stretch from star to star across the Galaxy, and crumble and fall. I have seen..." (ibid., p. 57)

But there is one major difference between Ed and Allan. By stopping Frank Gutchall from killing his wife and himself in a murder-suicide, Allan proves that history can be changed, and he then vows to prevent the world war he knows is going to happen. (Piper, *Worlds*, pp. 19, 20, 27) Ed Chalmers, however, is much more pessimistic. "Would there be any possible way in which he could give a credible warning? He doubted it. Even if there were, he questioned whether he should—for that matter, whether he *could*—interfere..." This is because Ed believes that each of his future "memories" is in truth "a fact of history, unalterably set in its proper place in time-sequence". (Piper, *Empire*, pp. 17, 31) If it's a fact, it cannot be changed. A minor difference between Ed and Allan is that, in Piper's main Future History WWIII occurs in 1974, while as we've seen, in "Time and Time Again" it occurs in 1975. (In "Hunter Patrol", the war occurs even later, and lasts longer. Fred Benson "shipped out for Turkey in '77", and the world war ends a year or two before 1984. (Piper, *Worlds*, pp. 87, 100, 103))

So Ed Chalmers is connected to both Fred Benson and Allan Hartley. And guess what, Fred Benson is also connected with Allan Hartley. Like Allan, Fred actually travels in time; only in his case, it is "fifty years futureward" of WWIII, rather than thirty years backward. (ibid., p. 82) But both men have the rank of captain during the Third World War. "Hartley, Allan, Captain, G5, Chem. Research AN/73/D. Serial SO-23869403J." And, "Captain Benson? We were warned to be on watch for your patrol". (ibid., pp. 9, 95) Also, both captains die (or were supposed to) in WWIII. "Blinded by the bomb-flash and numbed by the narcotic injection, [Allan] could not estimate the extent of his injuries, but he knew that he was dying." And, "The character [of the UN] was changed shortly after...er, that is, after..." "After my death," Benson finished politely." (ibid., pp. 9, 85) In addition, it is precisely just before they die that Allan and Fred travel to another time. (ibid., pp. 10, 89) Allan will grow up again, and eventually return to his own time of 1975, which he is determined to survive by preventing WWIII; while Fred actually does return to his own time (about 1980), and figures out a way to survive WWIII. (ibid., pp. 27, 92, 93) Allan Hartley changes the future by creating a chemical company which becomes bigger than I.G. Farbenindustrie, and then uses his economic clout to get his father elected President of the United States; with himself as the actual power. (ibid., pp. 27, 28, 40) Fred Benson changes the future by creating a (chemical-based) soft-drink company, and then manipulates the drink's heightened psycho-physiological effects and his economic clout to get himself elected perpetual chairman of the United Nations Security Council. (ibid., pp. 96-100, 104-105)

In short, all three of Piper's characters; Ed Chalmers, Fred Benson and Allan Hartley, are American soldiers connected by Time and WWIII. One then wonders if Chalmers was a captain in WWII, like Fred and Allan in WWIII. Or if Ed becomes one in WWIII, during the martial law which probably follows the nuking of San Francisco.

4. Piper, *Empire*, pp. 20, 38 It is interesting that Piper places "The Edge of the Knife", a story which mentions the creation of the Terran Federation (which replaces the failed UN) and occurs a year before WWIII, in the San Francisco area. This parallels the role San Francisco played in the creation of the United Nations (which replaced the failed League of Nations), near and just after the end of WWII. A war in which we've seen Chalmers fought.

"The **United Nations Conference on International Organization** (**UNCIO**) was a convention of delegates from 50 Allied nations that took place from 25 April 1945 to 26 June 1945 in San Francisco, United States. At this convention, the delegates reviewed and rewrote the Dumbarton Oaks agreements. The convention resulted in the creation of the United Nations Charter, which was opened for signature on 26 June... The United Nations did not instantly come into being with the signing of the Charter, since in many countries the Charter had to be subjected to parliamentary approval. It had been agreed that the Charter would come into effect when ratified by the governments of China, France, Britain, the Soviet Union, the United States, and a majority of the other signatory countries; and when they had notified the United States Department of State of their ratifications. This happened on 24 October 1945." (https://en.wikipedia.org/wiki/United Nations Conference on International Organization)

- 5. Piper, *Empire*, p. 25 If Ed begins his career as an assistant professor at some other college, it is possible that he starts fighting for tenure before he begins teaching at Blanley in 1961. Even if he doesn't, he will when he arrives at Blanley and learns that Dean Whitburn is "a stupid old bigot with an airlocked mind". (ibid., p. 34)
- 6. Ibid., pp. 19, 25
- 7. H. Beam Piper, *Four-Day Planet/Lone Star Planet* (New York, NY: Ace Books, 1979), p. 31 Walter Boyd mentions "burrow-cities, like the ones built in the Northern Hemisphere of Terra during the Third and Fourth World Wars". It is overlate to begin building burrow-cities *during* a world war; particularly one, like WWIII, that only lasts thirty days. But Walt's meaning here is obviously 'during the period of' the Third and Fourth World Wars.

A burrow-city sounds much more elaborate than the London Underground and various bunkers which were used as bomb shelters in WWII. The only example of a burrow-city Piper provides is Port Sandor on Fenris, which gives us an idea of what he had in mind. Founded in the early Fifth Century AE, Port Sandor is a true city, with enough room for at least 250,000 people (the original colonists). "The city was built in [a] valley [between two low hills], level by level, and then the tops of the hills were dug off and bulldozed down on top of it." (ibid., pp. 6, 32, 40)

In the real world, the 'burrow-cities' built before 1970 were mainly underground bunkers. These include military facilities such as the Cheyenne Mountain Complex in Colorado, designed "to deflect a 30 megaton nuclear explosion as close as 2 kilometers (1.2 miles)." In Russia, there is the still-unconfirmed Moscow Metro-2; a deep-underground network allegedly begun under Stalin, which reportedly lies anywhere from 165 to 980 feet deep, and was designed to accommodate 10,000 people (mainly Politburo and Communist Party members and their families) in case of nuclear war. And from 1969 to 1975, Red China constructed the Dixia Cheng (Underground City) beneath Peking. Ironically, this was not for fear of the capitalist West, but "in anticipation of a nuclear war with the Soviet Union, as Sino-Soviet relations worsened" in the late 1960s. "The government claimed that the tunnels could accommodate all of Beijing's six million inhabitants upon its completion." Other nations such as Great Britain and, particularly, Switzerland, also built underground facilities. (https://en.wikipedia.org/wiki/Metro-2, https://en.wikipedia.org/wiki/Underground_city (Beijing), and https://en.wikipedia.org/wiki/Underground_city)

8. Piper, *Empire*, p. 54; and *Worlds*, p. 30 The Philadelphia Project appears in both Terro-Human Future History (THFH) and non-THFH tales. In "The Mercenaries" (non-THFH), the moon race is well underway in 1965, but in "The Edge of the Knife" (THFH), it is not stated when it begins. Another difference is that, in "Edge", the Philadelphia Project is "a triple-top secret" until the *Kilroy* is launched in 1971 (Piper, *Empire*, p. 22), while in the 1965 of "The Mercenaries", it isn't secret at all. "[E]very literate person in the world knew" about the Philadelphia Project, as well as parallel projects by other world powers. One of these is "the Fourth Komintern's Red Triumph Five-Year Plan" (Piper, *Worlds*, p. 30), which means the Soviets plan to reach the Moon by 1970.

Since Piper brought the Philadelphia Project from "The Mercenaries" (published in 1950) into "The Edge of the Knife" (1957), it is quite possible the Soviet version, the Red Triumph Five-Year Plan, was also intended to be included in the THFH. Red Triumph would seem to be an excellent name, for if the Eastern Axis were able to build "the Lunar fortress that would insure world supremacy", the 'Reds' would indeed 'triumph' over the whole world.

9. Piper, *Empire*, pp. 21, 22 This is one of several inconsistencies in the story, as "started a little over three years ago...Just after New Year's, 1970" suggests that "The Edge of the Knife" begins in February or March, 1973. But even before this point in the story, Chalmers already specified that the date is October 16, 1973. This is later confirmed by Dean Whitburn, who says "Yes, I demanded this man's resignation on the morning of October Seventeenth, the day after this incident occurred." (ibid., pp. 17, 45) Ed's "a little over three years ago" is therefore inaccurate; he should have said "a little over three and a half years ago", or "almost four years ago".

10. Ibid., pp. 22, 27 This is an example of the Heinlein influence on Piper. In Heinlein's 'juvenile' novel *Space Cadet*, "The USAF Rocket Ship *Kilroy Was Here*" was the "FIRST TRUE SPACESHIP", and was launched in "1955 A.D." Its mission was "From Terra to Luna and return—Lieut. Colonel Robert deFries Sims, Commanding; Captain Saul S. Abrams; Master Sergeant Malcolm MacGregor. None survived the return landing. Rest in Peace." (Robert A. Heinlein, *Space Cadet* (New York, NY: Charles Scribner's Sons, 1948), p. 4)

Beam obviously borrowed Heinlein's idea, as *Space Cadet* (1948) was published nine years before "Edge" (1957), and his first rocketship to the moon has the same name, albeit truncated to just *Kilroy*. But the *Kilroy* gets its name "when somebody remembered that old 'Kilroy-was-here' thing from the Second World War." (Piper, *Empire*, p. 22) In addition to fixing the unwieldly name *Kilroy Was Here* to the more sensible *Kilroy*, Piper improved on Heinlein in two other ways. First, by having his *Kilroy* be an unmanned rocket. Once its mission is successful, *then* a manned mission can be sent with confidence of not killing the crew, as happened to Heinlein's *Kilroy*. Second, the Kilroy of WWII always appeared to be there before the American GI's arrived. "The phrase may have originated through United States servicemen, who would draw the doodle and the text "Kilroy was here" on the walls and other places they were stationed, encamped, or visited. An ad in *Life* magazine noted that WWII-era servicemen were fond of claiming that "[w]hatever beach-head they stormed, they always found notices chalked up ahead of them, that 'Kilroy was here' ". (https://en.wikipedia.org/wiki/Kilroy was here, sourced from Life magazine, 17 May 1948 issue, p. 120)

Thus, Piper's unmanned *Kilroy* is on Luna *before* the American astronauts arrive, in keeping with the alleged occurrences of the WWII model; whereas Heinlein's manned *Kilroy* brings the Americans with him (or it).

- 11. Piper, Empire, pp. 27, 59 One would guess that Piper's filing cabinet was likewise on the left side of his desk.
- 12. Ibid., pp. 22, 27; and John F. Carr, *H. Beam Piper: A Biography*, (Jefferson, North Carolina: McFarland & Company, Inc., 2008), p. 212 In "The Future History", Piper mistakenly dates this as taking place in AE 27 (1970), rather than AE 28 (1971). That paper contains another one-year error; see **endnote 57**.
- 13. Piper, *Empire*, pp. 30, 54; and *Worlds*, p. 54; Carr, *Piper Biography*, p. 212 That the US claims national sovereignty over Luna is consistent with Beam's non-THFH story "The Mercenaries", where "After the [first] spaceship is built...the Moon is annexed to the Western Union". The Western Union is one of "the four great powerblocs", and its major members include the US, Germany and Japan (Piper, *Worlds*, pp. 30, 41). It is therefore a parallel of America and its major allies including NATO (whose front line state was West Germany) and Japan.

Thus, it is possible that in the THFH, the US asserts national sovereignty over Luna in the name of itself and its allies, rather than itself alone. This would forestall friendly nations from joining the Eastern Axis in protesting the US annexation. Alternately, when the Terran Federation is created in early 1974, the US could offer to transfer its sole sovereignty over Luna to the Federation Government, as an inducement for its allies to join the new organization. After the Federation vanquishes the Eastern Axis in WWIII, and in simple fairness to all mankind, its Government likely opens the Moon to development by all its member nations, possibly dependent on their ability to get there. They have to develop their own rockets (possible for nations like Britain and France), or buy American-made ones.

A single, supranational sovereignty would resolve the disputes about sovereignty over Luna, which were a major cause of WWIII. And it would be an incentive for the other nations of the globe to join the Federation after the war.

- 14. Piper, *Empire*, p. 38 Chalmers doesn't say, but one would guess that it is a convention of historians. Possibly arranged by the American Historical Association, which "is the oldest and largest society of historians and professors of history in the United States. Founded in 1884, the [AHA] promotes historical studies, the teaching of history, and the preservation of and access to historical materials." (https://en.wikipedia.org/wiki/American_Historical_Association) Chalmers of course teaches history, and wrote a book about the French Revolution. (Piper, *Empire*, p. 57)
- 15. H. Beam Piper, Federation (New York, NY: Ace Books, 1981), p. 13 Connecting Chalmers and Penrose seems to make sense, since (Captain?) Chalmers fought the Axis powers in WWII, just as Lieutenant Penrose presumably fights the Eastern Axis powers in WWIII. I assume Penrose is an American, though he could be British. If Penrose was at Intelligence School in 1972, one then wonders if he ever met—or was even taught by—Major Cutler, the Army officer with Central Intelligence who later meets Professor Chalmers. (Piper, Empire, p. 41)
- 16. Piper, Empire, pp. 16, 47, 48
- 17. Ibid., pp. 16, 18, 19, 20, 31
- 18. Ibid., p. 30 Chalmers doesn't state when the disputes over the moon base first arise. I presume they begin soon after the US annexes Luna; this could occur when the *Kilroy* lands, but is more likely not until actual astronauts stand on the Moon. The disputes then continue over the next year or two, growing more strident as the construction of the US Lunar base proceeds.

- 19. Ibid., p. 48 Piper doesn't actually state who is on the PSPB. The acronym's first word, "Politico-", suggests that at least a few politicians or political experts are involved. Since Major Cutler knows about it and is the one who mentions it, military intelligence must be another one of the groups involved. And a third group is suggested by Cutler. He knows that Chalmers "never did any work for PSPB; did you ever talk to anybody who did?" (ibid., p. 47) This implies that scholars such as historians are also involved; probably related to the fact that some of them do 'future planning', similar to Chalmers' seminars "on extrapolation of present social and political trends to the middle of the next century". (ibid., p. 21)
- 20. Ibid., pp. 16, 17, 36, 54, 55 Like the Philadelphia Project, the Islamic Caliphate appears in both Terro-Human Future History (THFH) and non-THFH tales. In "The Mercenaries" (non-THFH), the Kaliphate (spelled with a K instead of C) is already in existence in 1965, and its capital is likewise Basra. (Piper, *Worlds*, p. 33, 36) In "The Edge of the Knife" (THFH), it is "newly-formed" in the fall of 1973.

Aside from Iraq, Piper never specifies which nations belong to the Caliphate, but Chalmers gives us a clue. When Ed is being examined by Dr. Hauserman, he tries to bluff the doctor by saying "I was trying to imagine what would happen if [Khalid's] influence were suddenly removed from Near Eastern and Middle Eastern affairs." The Near East, as seen from Europe, is roughly what Americans would call the Middle East, or Southwest Asia. The Middle East, as seen from Europe, is what Americans would call South Asia, or the Indian subcontinent. Thus, Professor Chalmers seems to be implying that the Islamic Caliphate includes Moslem countries in both the Middle East and South Asia.

Incidentally, Khalid ib'n Hussein of Iraq would be the first Arab Caliph in over 450 years. The previous Arab dynasty, the Abbasid Caliphate, ruled in Mesopotamia until 1258, when the Mongol Empire sacked Baghdad. The Abbasids then transferred to Cairo, where under Mameluke protection they lasted until 1517, when the Ottoman Turks conquered Egypt. Thereafter, Turkish sultans and caliphs ruled the Islamic world, until Kemal Ataturk abolished the caliphate in 1924. (https://en.wikipedia.org/wiki/Caliphate)

21. Ibid., pp. 14, 16 On October 16, after he talks about the assassination of Khalid, one of Chalmers' students says "The newscast, last evening, said Khalid was in Ankara, talking to the president of Turkey." That places Khalid in Ankara on October 15. In mid-October, his son Tallal should be in school, as English universities begin classes in early September. (https://en.wikipedia.org/wiki/Academic_term#England_and_Wales)

I used an internet search to determine that October 15, 1973 was on a Monday. That's also how I determined the other dates in this paper.

22. Ibid., pp. 13, 15, 16-17 October 16, 1973 is one of only two specific days mentioned in the story. Again, I used an internet search to determine that October 16 was on a Tuesday.

It is very interesting that after Chalmers' previous "dozen" slips, that makes this one his 'unlucky thirteenth'. And it is unlucky, as his revealed precognition about Khalid ib'n Hussein's murder spurs all the trouble Chalmers subsequently goes through. The Dean demanding his resignation, Ed's failure to find the note on the *Kilroy*, his loss of sleep, descent into excessive drinking and mental detachment, the unwanted notoriety by the press and public, and finally his 'inquisition' by the psychologists and trustees, which seems something like a courtroom trial.

Making Chalmers' thirteenth slip an 'unlucky' one which spurs all the trouble in the story, would then be another one of Piper's many subtle touches, found throughout his body of work.

Incidentally, Prescott Hall, where history professors like Chalmers and Pottgeiter teach, is presumably the building housing the History Department. It therefore seems to be named for William H. Prescott, who "became one of the most eminent historians of 19th century America", and "is widely recognized by historiographers to have been the first American scientific historian." (https://en.wikipedia.org/William_H._Prescott)

Piper was a fan of Prescott's, having read his three-volume *Ferdinand & Isabella* at least four times. In fact, that work seems to have been the main source for Beam's unfinished historical novel, *Only the Arquebus*. (Carr, *Piper Biography*, pp. 164, 165) It is easy to understand why Piper, a storyteller who loved military history, enjoyed Prescott. Because "Historians admire Prescott for his exhaustive, careful, and systematic use of archives, his accurate recreation of sequences of events, his balanced judgments and his lively writing style. He was primarily focused on political and military affairs, largely ignoring economic, social, intellectual, and cultural forces...Instead, he wrote narrative history, subsuming unstated causal forces in his driving storyline."

(https://en.wikipedia.org/William H. Prescott)

There are a couple other elements of Prescott that seem to be found in Piper's body of work. First, "It has also been argued that Prescott partially subscribed to the <u>Great Man theory</u>". The Great Man theory may have influenced Beam's concept of the "self-reliant man". Those superior individuals who achieve great things, including the seeming reversal of an apparently inevitable historic trend. Often main characters, these include Lucas Trask in Space Viking and Emperor Paul XXII in "Ministry of Disturbance". Second, Prescott wrote a "romantic style of history" (ibid.), and certainly Piper's Future History is told in a somewhat romanticized form.

That Prescott Hall of Blanley College is named for William Prescott is also supported by the fact that at least one real college is named after him. The Colegio Anglo Americano Prescott, located in Arequipa, Peru. (ibid.)

- 23. Piper, *Empire*, pp. 14, 19, 20, 21-25, 45 October 17th is the only other specific day mentioned in "Edge".
- 24. Ibid., pp. 27, 28, 29 The mid-April reference is another one of Piper's inconsistencies in the story. At this point, however, Ed is simply confused and disoriented, because he's so tired and worn down. It's not mid-April, it's mid-November. (This seems to be based on Piper himself, who kept odd hours, and so occasionally became confused. "Got up around noon, and back to bed—seemed to have forgotten what day it was." (Carr, *Piper Biography*, p. 105))

I therefore believe that the mid-April 'inconsistency' is simply Beam's way of illustrating how Chalmers is *losing touch with Time itself*, as suggested by the fact that he is not keeping "track of the advancing knife-edge that divided what he might talk about from what he wasn't supposed to know". (Piper, *Empire*, p. 29) Indeed, Chalmers is so detached from the everyday world, it may have "become unreal and illusory", just as Weill warned him. "But I'll say, now, that you're losing your grip on reality. You are constructing a system of fantasies, and the first thing you know, they will become your reality, and the world around you will become unreal and illusory. And that's a state of mental incompetence that, as a lawyer, I *can* recognize." (ibid., p. 24)

That Ed has become confused is supported by two mistakes about his future "memories", on the page just previous to the April 1973 quote. There, he mentions "the space-pirates in the days of the dissolution of the First Galactic Empire, in the Tenth Century of the Interstellar Era", and that the Uller Uprising in the Beta Hydrae system occurs "in the Fourth Century of the Atomic Era." (ibid., p. 28) Both of these statements contain errors.

The Interstellar Era begins circa AE 200, just after the "First expedition to Alpha Centauri, 192 A.E." (Carr, *Piper Biography*, p. 213) Ten centuries after that would equate to the Twelfth Century AE, which is a couple of centuries after the *Second Terran Federation* begins breaking up, not the First Galactic Empire. (Alternately, if the Galactic Empire is indeed meant, then it should presumably read "in the Tenth Century of the Imperial Era", not Interstellar.)

And *Uller Uprising* takes place in AE 526 (ibid.). This is the Sixth Century AE, not the Fourth. That the Sixth Century is correct is confirmed by the appearance in *First Cycle* of Kent Pickering, who was on Uller during the Uprising. (H. Beam Piper, *First Cycle* (New York, NY: Ace Books, 1982), p. 199) *First Cycle* was intended as a sequel of sorts to *Uller Uprising*; it was written close in time and slated to be published in the Twayne Triplet after the one containing *Uller* (Carr, *Piper Biography*, p. 103). And *First Cycle* takes place "in the 572nd year of the Primary Dispersion" (Piper, *First Cycle*, p. 4). Primary Dispersion seems to refer to the primary dispersion of electrons, or 'first chain reaction'. That makes Primary Dispersion simply an alternate name for Atomic Era, which begins when Enrico Fermi initiates the first chain reaction at the University of Chicago, on December 2, 1942. (Carr, *Piper Biography*, p. 212)

Kent Pickering is therefore on Uller in AE 526, and Thalassa in AE 572, which places both stories in the Sixth Century AE. Not the Fourth Century. Thus, at Professor Chalmers' lowest point in "The Edge of the Knife", he not only doesn't know what month it is, he has even become confused about his "memories" of the future. This reveals some Piper-style irony, for it was Ed's attempt to *suppress* his precognitive ability that caused his slide into mental detachment, not his harboring of it. This confirms he was sane to begin with.

Incidentally, the difference of 46 years between AE 526 and 572 should make Pickering an old man in *First Cycle*, but this is probably alleviated somewhat by the "time-differential for hyperspace trips" mentioned by Jack Holloway. (H. Beam Piper, *Fuzzy Sapiens* (New York, NY: Ace Books, 1976), p. 85) For men like Holloway, who has been on many planets, the alleviation can be a lot. Jack is 74, but doesn't look "much over sixty." (ibid.) His actual age is therefore about ten years less than his numerical age. Perhaps not coincidentally making Holloway close in age to Piper himself, who turned sixty in 1964, the year *Fuzzy Sapiens* came out.

- 25. Ibid., pp. 13, 29, 30, 31, 37 That Chalmers predicted Khalid's death "a month ago" places his actual assassination in mid-November, 1973. Since this precognition was Ed's 'unlucky thirteenth' (see **endnote 21**), I approximate Khalid's death as occurring on November 13.
- 26. Ibid., pp. 29-30 Ed's reaction at hearing the news of Khalid's death is "At least, this'll be the end of that silly flap about what happened a month ago in Modern Four." His secretary, Marjorie Fenner, is "horrified at his cold-blooded attitude toward what was really a shocking and senseless crime." (ibid., p. 30) But his quick recovery from his previously tired, detached and confused state is undoubtedly due to the nature of his vindication. The prophecy of Khalid's assassination was one of "uncanny accuracy" (ibid., p. 38), being correct in ten primary details. "Event of assassination, year of the event, place, circumstances, name of assassin, nationality of assassin, manner of killing, exact type of weapon used, guards killed and wounded along with Khalid, and fate of the assassin."

This confirms that Ed's precognitive ability is real, because it is far too accurate to be coincidence. "If that's a simple and plausible coincidence, so's dealing ten royal flushes in succession in a poker game." (ibid., pp. 45) In addition to being vindicated, "It gratified [Ed] to see that his future "memories" were reliable in detail as well as generality." (ibid., p. 37)

27. Ibid., pp. 31, 33, 34, 37, 38 The reference to the *Valley Times* newspaper suggests that Blanley College is located in one of the valleys of the coastal range mountains near San Francisco. For example, just north of San

Francisco is the city of Mill Valley. "The other side of the mountains" seems to mean the Sierra Nevada, placing Northern State Mental Hospital in eastern, or more likely, northeastern California. Yosemite National Park is 150 miles east of San Francisco, while roughly 150 miles northeast is the small city of Truckee, California.

Assuming the latter is correct, that would ironically place Northern State not too far west of Reno, Nevada, which is destroyed a day or two after Chalmers is committed to that hospital. Moreover, Truckee is most famous for being located by Donner Lake, where the ill-fated Donner Party of 1846 were stranded. Possibly a hint by Beam that cannibalism will resurface among the survivors in California, after the H-bombs of the Thirty Days' War stop falling. (https://en.wikipedia.org/wiki/Truckee, California)

- 28. Piper, Empire, pp. 35-39
- 29. Ibid., pp. 16, 30, 54 Although unstated by Piper, we can deduce several reasons why the death of Khalid is necessary to the Axis. First, he is "pro-Western", meaning that under his leadership, the policies of the Caliphate align with the Free World. The IC would then be a threat to the USSR's southern flank, even as NATO is to its western flank. Second, its name suggests that the Islamic Caliphate either encompasses, or attains to encompass, the entire Moslem world. And as seen in **endnote 19**, it apparently already includes countries in the Middle East and South Asia. Thus, in addition to the USSR the IC may border the other two main Axis nations as well; Red China (in Afghanistan and Pakistan), and Communist India (Pakistan and Bangladesh). A pro-Western power-bloc along the entire southern and western borders of the Eastern Axis would pose a military threat similar to that of NATO in Europe. Perhaps greater, since the USSR, Red China and India all have Moslem populations, which one would presume are sympathetic (if not loyal) to the idea of the Caliphate, and would therefore pose a subversive threat within all three communist powers.
- 30. Ibid., pp. 39, 41, 42-51, 55
- 31. Ibid., pp. 51, 52, 53-56, 57, 58 Personal safety cannot be Ed's only—or even main—consideration for maneuvering Dr. Hauserman into committing him to Northern State. Since he knows approximately when WWIII will begin, he could simply resign his position and move away from Blanley, either at the end of the school year (April 1974), or during the summer. By having himself declared insane, however, everyone will leave him alone, and his troubles will be over. The press will move on to the next news story, Dean Whitburn will be convinced that he was right about Chalmers all along, the trustees and Ed's fellow professors will be satisfied that the Higher Education Faculty Tenure Act of 1963 has been upheld, Leonard Fitch and the psychology-parapsychology crowd will think they were wrong about Ed's precognitive gift, and the CIA will have no further interest in him.

Because Chalmers tells Pottgeiter "don't let anybody else see any of it. Keep it safe for me" (ibid., p. 59), Max probably gathers Ed's notes right away, rather than waiting until the Turks annex Syria and Lebanon. Chalmers will not be in his apartment for many months—in fact, he probably never returns—and he gets Dr. Hauserman to agree to let him "have books, and papers, and work a little". This suggests that Ed plans to resume his future history note-taking during his 'recovery', probably under cover of regular historical research.

- 32. Ibid., pp. 52, 58, 59 Pottgeiter's faith in Chalmers is such that, being informed only that "Something very bad" was going to happen in the Blanley area, he replies "Of course, Ed...I'll come, and bring her along." (ibid., p. 59)
- 33. Ibid., pp. 48, 52, 58 Chalmers knows that the destruction of Reno will happen "just a couple of days after the assassination of Khalid". When, despite his warning against going, his attorney leaves for Reno anyway, Ed "was as sure that he would never see Stanley Weill alive again as he was that the next morning the sun would rise."

In 1970, the population of Reno was 72,863; in 1980, it was 100,756. (https://en.wikipedia.org/wiki/Reno. Nevada) The difference between 72,863 and 100,756 is 27,893; if we divide that by 10 for individual year increments, and then multiply that by 3, that gives us an estimate of 81,230 Renoans for 1973.

Assuming the entire population of Reno is killed or wounded, eighty thousand casualties is not much less than the number of casualties in Hiroshima, where 70,000 died directly from the atomic bomb, while deaths from injury and radiation brought the total to somewhere between 90,000-166,000. (https://en.wikipedia.org/wiki/Hiroshima). The destruction of Reno therefore seems to be a 'preview' of the Third World War, in which many cities, much greater than Reno, will be wiped off the map due to great thermonuclear explosions and fires. Reno's tens of thousands of casualties, though undoubtedly a major disaster when it occurs, will then seem insignificant, compared to the tens of millions of casualties in the world's great cities.

The comparison of Reno to Hiroshima is supported by the *Mont Blanc* itself, which "was the <u>largest man-made explosion</u> prior to the development of nuclear weapons". (https://en.wikipedia.org/Halifax_Explosion) It is also interesting that the *Mont Blanc* blew up on December 6, 1917. This is eleven months before the First World War ended. The explosion at Reno in mid-November 1973 is similarly eleven months before the end of WWIII, in mid-October 1974.

- 34. Piper, Empire, pp. 48, 54
- 35. Ibid., pp. 16, 48 It is possible that the sack of Beirut is by the Turks, when they move into Syria and Lebanon to restore order. But Pottgeiter's order of events on the bottom of page 48 suggest that the sack of Beirut occurs well before the Turks intervene. This is supported by the fact that "the whole of Syria and Lebanon would be in bloody chaos" before the Turks move in. The sack of Beirut would then be part of the bloody chaos.
- 36. Ibid., and David Fromkin, A Peace to End All Peace (New York, NY: Avon Books, 1989), pp. 424-426, 560, 562
- 37. Piper, *Empire*, pp. 36, 48, 54 A Hashemite-founded Caliphate would be the fulfillment of a dream from WWI. At that time, "King Hussein [of the Hejaz] told an Arab Bureau officer, Major Kinahan Cornwallis, that he was thinking of proclaiming himself Caliph. Three years earlier this had been Lord Kitchener's plan...the High Commissioner, Sir Reginald Wingate...on 17 November 1915 had induced an Arab religious leader to tell Hussein that he was "the right man to take over his rightful heritage and verify the hopes of his people—the Mohammedans and Arabs to recover their stolen Khalifate [from the Ottoman Turks]", and calling upon the Hashemite leader to establish "the Hashemite Arabian Khalifate." " (Fromkin, *Peace*, p. 327)

After kicking the Hashemites out of the peninsula, the Saudis became the current guardians of the holiest places in Islam. In Piper's 1973, they may therefore believe that one of their own tribe should be Caliph, not a Hashemite like Khalid and Tallal. They may also assert that the capital of an 'Islamic' Caliphate should logically be Mecca, the heart of Islam, and not Basra, located in a 'heretical' Shiite area.

38. Carr, *Piper Biography*, p. 212; Piper, *Empire*, pp. 30, 48; and *Worlds*, p. 41 In mid-November, Chalmers knows that the Terran Federation "won't exist on paper very long"; my estimate is about three months. And in "The Mercenaries", Kato Sugihara states that "Japan's a Western Union country, now. So's Germany." I have therefore surmised that West Germany and Japan are the most likely candidates to quickly join the US-led Terran Federation. Initially a closer and more formalized binding of America with all its allies in Europe and East Asia.

One would guess that, after their diplomatic efforts and outright demands at the UN fail to get the US Lunar base demilitarized and internationalized, the Eastern Axis nations withdraw from the organization. This would parallel how the Axis nations withdrew from the League of Nations before WWII (and in the case of the non-Axis Soviet Union, were kicked out), because the League opposed and condemned their military aggressions against other countries.

Just as the collapse of the League of Nations led into WWII, the collapse of the United Nations leads to WWIII. For once diplomatic and political solutions to the US Lunar base become impossible, the Eastern Axis' only option is a military solution.

- 39. Piper, *Empire*, p. 225; and H. Beam Piper, *Uller Uprising* (New York, NY: Ace Books, 1983), p. 55 Not joining the Federation would presumably keep the Southern Hemispheric nations from becoming targets of the Eastern Axis. However, they could join right away. Since WWIII lasts only thirty days and takes place on the other side of the world, time and distance constraints could enable the Southern members of the Federation to avoid getting involved before it's all over.
- 40. Piper, Federation, p. 184; and Uller Uprising, p. 14
- 41. Piper, Empire, pp. 36, 59
- 42. Ibid., pp. 50, 59 At the end of the story, Chalmers tells Max Pottgeiter, "you remember what I told you about the Turks annexing Syria and Lebanon?...When that happens, get away from Blanley." This appears to be another one of Piper's inconsistencies, for it suggests that the thermonuclear hell will hit the Blanley area in about two months (early 1974), rather than eight months later.

Of course, 'restoring order' to Syria and Lebanon is not the same thing as officially 'annexing' them; this does not necessarily occur immediately after their conquest. I assume it doesn't happen until the Middle Eastern war is over, mainly because this allows Pottgeiter to unobtrusively leave Blanley at the end of the standard school year. But if the Turks wait until Tallal becomes Caliph, which Chalmers' quote suggests happens only a month or two before WWIII breaks out, that could resolve the apparent inconsistency. Pottgeiter and Fenner would then leave Blanley in the summer of 1974, not long before the beginning of the fall semester and the Thirty Days' War begins.

43. Ibid., pp. 15, 16, 59 At one point in the story, Marjorie "was tidying up the old man's desk", and after "fussing with Pottgeiter's desk" some more, "she exclaimed in exasperation. "Oooh! That man! He's forgotten his notes again!" She gathered some papers from Pottgeiter's desk, rushing across the room and out the door with them." This certainly suggests that it happens on a fairly regular basis.

But watching over Max during his retirement may not provide enough income to make ends meet. Miss Fenner

could therefore get a secretarial job at Northern State Mental Hospital. That would also allow her to assist her other ex-professor, Ed Chalmers, during his 'recovery'.

44. Ibid., p. 55 I assume that the uprising in Azerbaijan is the "more trouble in northern Iran" foreseen by Chalmers. (ibid., p. 36) 'More' trouble suggests that there was 'trouble' in northern Iran at an earlier date, probably during the general Middle Eastern war the previous winter.

The Russians have long had an interest in Iranian Azerbaijan. During the Great Game, both Britain and Russia tried to use Persia to check the expansion of the other power in Asia. In 1907, they recognized each other's spheres of influence over Iran's northern (Russia) and southern (Britain) parts, with a neutral zone between. And finally, the Soviet Union occupied Iranian Azerbaijan during WWII, but didn't withdraw until pressure from US President Harry Truman forced them out in 1946. (Peter Hopkirk, *The Great Game* (New York, NY: Kodansha America, Inc., 1994), pp. 35-36,62-66, 175-187, 520-521, and https://en.wikipedia.org/wiki/Azerbaijan (Iran).

- 45. Ibid., p. 17
- 46. Ibid., pp. 36, 55
- 47. Ibid., p. 48
- 48. India and Pakistan have fought four wars; in 1947, 1965, 1971 and 1999. Interestingly, the 1971 war involved Indian troops intervening in East Pakistan, which then became Bangladesh; a mere two years before Piper had his Communist Indians invade Bangladesh. (https://en.wikipedia.org/wiki/Indo-Pakistani wars and conflicts)
- 49. Ibid., p. 17 Even if Bangladesh is not part of the Caliphate, the two parties may have signed a mutual defense treaty. This would involve the IC guaranteeing the independence and security of Bangladesh, similar to the pledges made by the UK and France to Poland in March, 1939. (https://en.wikipedia.org/wiki/Anglo-Polish_military_alliance)
- 50. Piper, *Worlds*, pp. 94-95 Spain became a member of the UN in 1955, though it didn't join NATO until 1982. Chalmers does not reveal the sequence of events that cause the whole Northern Hemisphere to go to war. But one would surmise that, when Communist India invades Bangladesh, the Islamic Caliphate declares war on India. Either Bangladesh is a member of the IC, or as a prospective member it is a 'red line' that the IC will not suffer the Eastern Axis to cross. The Caliphate's declaration of war is followed by counter-declarations of war on the Caliphate by India's allies, the Soviet Union and Red China. Assuming Turkey and Iran are part of the Caliphate, this would certainly get the attention of the United States and Great Britain, as both are treaty partners with Turkey and Iran in NATO and CENTO, respectively. But these are (or were) defensive alliances, so until Turkey and Iran are actually attacked, the US and UK might not respond immediately, other than to put their militaries on high alert.

But since the Soviet Union cannot allow the US to achieve world supremacy, it *knows* the Indian invasion will bring it into conflict with America. Upon hearing that the Caliphate has declared war on India, or even just after the Indians make their move, the USSR launches its ICBMs on an unsuspecting America. A long-planned attempt to wrest Luna and world supremacy from the West. This scenario could explain why "the Thirty Days' War would be the *immediate* result" of India's invasion. (ibid., p. 55, emphasis added) The opposing alliances are triggered very quickly.

- 51. Ibid., p. 199
- 52. Ibid., p. 80
- 53. Piper, Empire, pp. 55-56
- 54. Ibid., p. 56
- 55. Ibid., p. 57 Chalmers continues this quote with, "And it would be a little under a year..." (ibid., p. 56) At this point in the story, it is a month since Ed prophesied the assassination of Khalid. It is therefore mid-November, 1973. A little under a year from that time would be about mid-October 1974. This squares with WWIII beginning "before autumn" (ibid., p. 55), because it means the Thirty Days' War lasts from about mid-September to mid-October 1974.
- 56. Ibid., p. 30
- 57. Piper, *Worlds*, p. 173 After Mobile, the quote continues with "and San Francisco". Including that phrase would obviously be redundant in the current context, but it does connect Piper's non-THFH WWIII with that of his main Future History.

- 58. Piper, *Empire*, p. 56 In the non-THFH story "Day of the Moron", the word "enemy...still meant Soviet", which appears to mean the Soviet Union. (Piper, *Worlds*, p. 199) The strategic nuclear exchange of the Thirty Days' War is therefore mainly between the USA and USSR, the two superpowers of the Cold War era, each of which possessed many thousands of nuclear weapons. The other nuclear powers, like Great Britain, France and Red China, possessed mere hundreds. India presumably had just one, as it coincidentally conducted its first nuclear test in 1974.
- 59. Piper, *Empire*, p. 54 Incidentally, the year 1974 equates to AE 31. This reveals another error in "The Future History", in which Piper says "World War III (Thirty Days War). Organization of First Terran Federation 32 A.E." (Carr, *Piper Biography*, p. 212) AE 32 is 1975, not 1974.
- 60. Piper, Worlds, p. 84
- 61. Gerard Chaliand and Jean-Pierre Rageau, *A Strategic Atlas* (New York, NY: Harper & Row, 1990), p. 151; and https://en.wikipedia.org/wiki/Khalistan movement
- 62. Piper, Empire, p. 57
- 63. John F. Carr, Introduction to Federation, p. xxviii
- 64. Piper, Worlds, p. 100
- 65. Mark [no last name given], "Rock to Hide Me: Herman Kahn, Civil Defense, and the Manhattan Shelter Study" (https://www.atomicskies.blogspot.com/2013/09/rock-to-hide-me.html)

The burrow-cities of WWIII and WWIV, designed for protection against incoming nuclear bombs and missiles, are probably forerunners of the underground facilities built on Poictesme during the System States War, designed for protection "when it's raining hellburners and planetbusters." These installations include Force Command Duplicate, which is "cram-full of supplies to be used in case of a general blitz that would knock out everything on the planet. And a chain of hospitals. And a spaceport, over on Barathrum, that was built inside the crater of an extinct volcano... And supply depots, all over the planet..." Also, "vast underground arsenals and shops". (H. Beam Piper, *The Cosmic Computer* (New York, NY: Ace Books, 1963, pp. 25, 41, 47)

- 66. Piper, Worlds, p. 85
- 67. Ibid., pp. 133, 134 This is "*The Ancient Spaceport*!" A concrete-filled valley which is thought in the far future to have been "a firing stand for the first Moon-rocket." It turns out to be "the tomb of Hradzka", a time-traveling dictator who brought "the Deadly Radiations" to the Twentieth Century. After he was killed for spreading radioactivity among the local populace, he was buried under "a mass of concrete" to contain his deadly emanations.
- 68. Piper, Empire, p. 47
- 69. H. Beam Piper and John J. McGuire, *Crisis in 2140 A.D.* (New York, NY: Ace Books, 1957), p. 9 This is after the Fourth World War, rather than after the Third. But in Piper's main Future History, Russia, along with the rest of the Northern Hemisphere. is completely devastated.
- 70. Piper, Federation, p. 34
- 71. Ibid., pp. 4, 19
- 72. Ibid., pp. 20-21, 46
- 73. Ibid., pp. 4, 12
- 74. Carr, Piper Biography, p. 212
- 75. Piper, Worlds, p. 85
- 76. Piper and McGuire, *Crisis*, p. 9 'Reunited' means the UN broke up before WWIII (as in the THFH) or WWIV, and was reunited afterward, undoubtedly by the victorious Western powers. Thus, by simply replacing "United Nations" and "Reunited Nations" with "Terran Federation", these non-THFH references may well be applicable to Beam's main Future History.

78. That Beam locates the world capital in central North America (at least in "Hunter Patrol", and probably in the THFH) may have been due to the influence of E.E. 'Doc' Smith. In the classic novel *Triplanetary*, Smith's WWIII occurs sometime in the later Twentieth Century. After the enemy from the other side of the Pole (obvious Soviet parallel) is destroyed, "From our protected areas in North America a strong but democratic government can spread to cover the world. That government can be extended easily enough to include Mars and Venus." (E.E. "Doc" Smith, *Triplanetary* (New York, NY: Pyramid Books, 1948), pp. 80, 89) And after Beam's WWIII, the new democratic world government plants "colonies on Mars and Venus." (Piper, *Empire*, p. 47)

However, Piper's Terran Federation appears to have been mainly influenced by the Terran Federation of Robert Heinlein, which appears in his 'juvenile' novel *Between Planets*. This was published in 1951, a single year before *Uller Uprising*, the novel which "became the foundation of Piper's monumental Terro-Human Future History, the first story where we encounter the Terran Federation." (John F. Carr, Introduction to *Uller Uprising*, p. vi) In *Between Planets*, the Federation's capital is not exactly in North America, but seems to be the island of Bermuda, just off the east coast. (Robert A. Heinlein, *Between Planets* (New York, NY: Charles Scribner's Sons, 1951), p. 25)

79. Piper, *Empire*, p. 225 This quote is in error. The Interstellar Era presumably begins around AE 200, not long after the first interstellar trip to Alpha Centauri, which occurs in AE 192. (Carr, *Piper Biography*, p. 213) The First Century of the Interstellar Era would then roughly correspond to the Third Century of the Atomic Era. Moving backward along the timelines, the First Century Pre-Interstellar would correspond to the Second Century AE, and the Second Century Pre-IE to the First Century AE.

Thus, "the Third Century Pre-Interstellar" would actually correspond to the First Century Pre-Atomic, which runs from 1843-1942 AD. Great Britain cannot possibly join the Terran Federation in that century, because the Federation does not yet exist. Nor the United Nations, for that matter. But if Britain's accession occurs not long after the Third World War, the corrected quote would read "in the *Second* Century Pre-Interstellar", meaning that Britain joins the Terran Federation 'about a century later' than Piper says it does. That would connect this quote with Professor Chalmers, who Beam modeled on Nostradamus, and appears in his Future History about a century late. (See my papers "Professor Chalmers—Piper's Nostradamus", and "The Early Terran Federation", section **Historical Models of the Early Federation**.)

Assuming this line of reasoning is correct, then the mistake was on purpose, making "the Third Century Pre-Interstellar" reference one of Piper's rumored 'deliberate errors'.

- 80. Piper, *Empire*, p. 16 This deduction is based on its historical model, the large-scale revolt of the Ukraine against the Polish Commonwealth in 1848. See my forthcoming paper "Piper's WWIII—From Thirty Years War to Thirty Days' War". That Ukraine revolted at the end of the Thirty Years War probably means that Canada secedes from the British Commonwealth at the end of the Thirty Days' War. Most likely to join the Terran Federation, which is then in the process of uniting the globe. See section **circa 1990 Great Britain joins the Terran Federation.**
- 81. "Canada and the United States are the world's largest trading partners. The two nations have the world's longest shared border (8,891 kilometres (5,525 mi)), and also have significant interoperability within the defence sphere...Military collaboration was close during World War II and continued throughout the Cold War, bilaterally through NORAD and multilaterally through NATO. A very high volume of trade and migration continues between the two nations, as well as a heavy overlapping of popular and elite culture, a dynamic which has generated closer ties, especially after the signing of the Canada–United States Free Trade Agreement in 1988. (https://en.wikipedia.org/wiki/Canada-United States relations)
- 82. Assuming that during the recovery from the nuclear devastation of WWIII, there is "a new flood-tide of prosperity" in America, this would translate into a prosperous Terran Federation. The Federation also controls access to space and the resources of the Moon. As previously stated, only nations belonging to the TF can access its booming economy and off-world opportunities. These would all be powerful incentives for the non-Federation nations to join, which they do in the years just after WWIII. Thus, by remaining out of the TF, the isolated British economy probably begins lagging far behind the rest of the world. Five or six years, one would think ten at most, should be long enough for the British—who are undoubtedly still struggling to recover from the first all-out Atomic War—to finally realize they cannot go it alone any longer. At that point, they give in to the inevitable, and join the Terran Federation.

The years 1974-1984 also have the serendipity of being two centuries after the American Revolution. Against all odds, the fledgling United States freed itself from the rule of the powerful British Empire; by declaring independence in 1776, winning the Siege of Yorktown in 1781, and having its independence recognized in the Treaty of Paris, 1783. During the capitulation ceremonies after Yorktown, the British army band played "The World Turned Upside-Down" to express their feelings of disbelief at the outcome. Now, 200 years later, the world really has turned upside down. The British Empire is gone, and even the Commonwealth has collapsed, leaving Britain isolated; while America has

become the mightiest nation on Earth by destroying the Eastern Axis and uniting the globe in "some kind of a world empire". A state of affairs which forces the much weakened nation of Great Britain to surrender its very sovereignty to the US-led Terran Federation. In effect, Britain becomes part of the American empire!

Of course, as a fellow Anglo-Saxon nation and staunch US ally, this is perhaps no very great pill to swallow. And although the British have lost their old terrestrial colonies, joining the Federation actually allows them to begin planting new, *extra*-terrestrial ones. Thus, by joining they may hope to renew their influence and power; some of the "colonial claims" on Venus, Mars and the moons of Jupiter mentioned by Beam in "The Future History" are probably British. And this would be a Piperian example of history repeating itself. For, just as an isolated England was a latecomer in colonizing the New World, which nevertheless heralded the beginning of England's rise to world empire, the isolated Britain of the post-WWIII period is a latecomer in joining the Terran Federation, when it begins colonizing new worlds. Probably in hopes of becoming a great empire again.

- 83. See my paper "Chartered Companies of the Terran Federation" (John F. Carr, editor, *The Rise of the Terran Federation* (Boalsburg, PA: Pequod Press, 2017), pp. 351-354).
- 84. Piper, Four-Day/Lone Star, p. 31
- 85. Carr, Piper Biography, p. 212
- 86. Piper, Uller Uprising, p. 150; and Empire, pp. 21-22