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by Leo Szilard

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Right now the atomic striking forces of America may well be superior to those of Russia. America has more bombs, bombers and long-range rockets than has Russia and there is no reason why the present ratio could not be indefinitely maintained if this were desired. But as the number of bombs and rockets increase on both sides before long Russia will reach what may be called parity of saturation and when that point is reached, it will become inherently--irrelevant whether America has many times more bombs and rockets than does Russia. Today, if America were to make a massive attack against Russia's rocket bases and strategic air bases, Russia would have enough residual capacity to strike a return blow that would destroy much of our American cities. But presently Russia could not destroy all of America's cities above 100,000. But as Russia increases the number of her submarines capable of firing long-range rockets and as she places more and more long-range rockets into hardened bases, located on Russian territory, Russia's residual striking power will rapidly increase. When this striking power becomes sufficient to destroy all of America's cities over 100,000, just as America's residual striking power to-day could destroy all of Russia's cities over 100,000, then we may say that Russia has reached parity of saturation. That America may at that point still have many times more rockets and bombs than Russia would then be of no avail and would have no relevance for the discussion which I propose to present below.

America/ It has been said over and over again that while in the case of war, America might be first to decide to use atomic weapons, America would never start a war. Since there is no reason to suppose that Russia would start a war any more than would America, one might feel assured by this statement were it not for the fact that the statement is unfortunately quite meaningless. When, On October 22nd of last year, President Kennedy proclaimed a partial blockade of Cuba, he was in no position to know whether or not Russian ships would try to run the blockade. Had a Russian submarine ship done so, it would have been sunk and the Russians might have retaliated by sinking our warships in the Caribbean. Since neither America nor Russia want an all-out atomic

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war, presumably escalation would have stopped short of war. This would have been war even though ^{both} America and Russia could each have argued with some justification that she didn't start it. As long as America's strategic striking forces are manifestly superior to those of Russia, it is predictable which of the two nations will be the first to put an end to escalation and as long as this is the case, one may also venture to predict at about what point escalation will be likely to stop. But a few years hence, when Russia reaches parity of saturation, with America then in a contingency when force is used it would be quite impossible to predict which of the two nations would be the first to put an end to escalation. I believe further that it is in the very nature of the problem that when it is no longer possible to predict which of the two nations will put an end to escalation then it is also no longer possible to predict at what point short of an all-out atomic war escalation will stop.; If there were generally accepted principles of international justice and if America and Russia had reached a meeting of the minds on rules of conduct which they both resolve to impose on themselves then America and Russia might conceivably live with saturation parity, perhaps indefinitely without incurring a serious risk of an all-out atomic war. If there is no resort to force they could do this even though saturation parity is ~~in~~ inherently unstable. Because this statement is couched in technical terms, it is necessary to spell out what it means. The co-existence to strategic striking forces is inherently unstable if one of the parties could make a ~~major~~ move and thereby gain a major advantage provided that in responding the other party ~~does-what~~ follows its national interest and ~~fall~~ it is not goaded by its emotions into making some irrational response. Keeping this definition in mind, one may easily see that the saturation parity is inherently unstable. Let us assume for instance that somehow a war breaks out in Europe and Russia and America are in the process of rushing reinforcements armed with conventional weapons in an attempt to gain a significant technical advantage. If either America or Russia could then knock ~~out~~ the other nation out of the war ~~by~~ by destroying in a sudden massive attack say, half of that nation's cities. In doing so, it would make it clear that having

the war ~~is~~ to an end in this manner no further attack against any city would occur provided that nation attacked does not hit back. If for any city that an attacked nation might destroy in a counterblow, the attacking nation would threaten to destroy and additional city. In addition, ~~the-attacking-nation-might~~ to deterring in such a manner a counterblow, the attacking nation would also offer a positive inducement to the attacked nation from refraining from a counterblow. It could assure the attacked nation~~s~~ that in the absence of a counter~~blow~~ attack, it would devote 20% of its production facilities to the re-building of the cities that have been destroyed, ~~the~~ the attacking nation having created a fait accompli' could not convincingly argue that it would not be in the ^{national} interest of the attacked nation to strike a counter blow. It is quite true that if the attacked nation were guided by its national interests rather than by the desire for revenge, it would ~~remain-fre-~~ refrain from striking a counterblow and accept the offer of help that has been given to it. Because there is of course no assurance that any nation so attacked would respond rationally, the attacking nation would ~~be~~ take a serious risk. This does not change, however, the fact that ~~it~~ saturation parity is inherently unstable. All that one needs to concede at this point is that it would take a major disturbance rather than just a minor disturbance to bring this inherent instability into play.