

## TRUISMS AND SOME PREDICTIONS

Truisms, as per me.

1. Nuclear Energy is here to stay.
2. Conventional Nuclear Weapons may or may not be here to stay, but they probably are.  
(I'm guessing they will be for the next 5 decades, anyway)
3. The world is not big enough for more than just a few multi-megaton atmospheric explosions. But the earth **can** tolerate a few of them.  
(There have been none for nearly 50 years, but the earth did tolerate quite a few.)
4. The world has virtually no places where multi-megaton explosions can be conducted underground safely, and with acceptable effects.  
(The last one was in 1971 and was a huge effort.)
5. There are some places in the world, but not that many, where small underground nuclear explosions can be accomplished with acceptable consequences. The United States probably has the best one.

**Prediction:** Small underground nuclear explosions will be conducted from time to time.

They will ultimately be found to be exceedingly valuable for a large number of space activities.

6. No war is really acceptable on one's own turf. Strong nations will take drastic steps to prevent such from happening.
7. A war somewhere else is acceptable to the average citizen. If it is far enough away, it will be argued to be irrelevant.
8. History demonstrates that despite all, wars of some kind will occur.

**Prediction:** With nuclear devices/weapons in space, using them “in the National Interest” will be irresistible.

HOWEVER,

Truisms:

9. Wars can be fought in many ways

10. To “win” a war, it is no longer necessary to use vast armies, or, indeed, to kill very many people. A nation can “lose” a non-nuclear war in the same way. (The Gulf War was deemed to be OK, since so few Americans died in winning it. As a result, increased emphasis is placed on “smart” weapons, meaning there is a goal of eliminating dumb people from the decision-making process. Hence, it is conceivable to have an “automatic” war. Space is an ideal place for such a thing.)

11. Satellites play an ever-increasing role in many international activities and problems. Too little experience exists to make firm statements about their vulnerabilities, particularly to threats never yet encountered, or even visualized.

12. When one considers the technological advances of even just the last few years, it is quite clear that “you ain’t seen nuttin yet!”

**Prediction:** Wars in space are in our future. They will not resemble previous wars.

13. Present-day clues about the future exist.

- a. No experienced nuclear nation has any real use for high yield nuclear explosions unless one regards them purely as a source of energy.
- b. Nobody is willing to give up his entire nuclear stockpile. If he says he has done so, be very careful about believing it.

- c. Third world nations are eager to possess nuclear weapons. Many have the knowledge of how to do so, and can be expected to have them in a few years.
- d. Nuclear-powerful nations need to find ways to deflect the objectives of third-world countries. Among other possibilities are education, demonstrations, and intimidations. Sanctions are being tried but do not appear to be working very well. (Perhaps an explosion of high yield will finally have a role to play, but the accompanying complexities of making a decision with “open-ended” results currently make this unlikely.)
- e. NASA makes space activities boring. The Department of Defense makes space activities riveting. (We are surrounded by panicky pundits about Missile Defense, and rarely pay much attention to a NASA shuttle launch event.)

14. The world’s need for energy dictates vastly increased numbers of nuclear reactors. My use of the word “dictates” is not whimsy.

**Prediction:** The proliferation and sophistication of reactors will increase to the point that they will be mightily used in space. Competition there for dominance will result in “novel” contests. Star wars will then have arrived.

