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By

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Get Ready – Listen Up – Because your Space Playbook is about to Really Change. There's a New Gunslinger in Dodge and he's huge. He's hungry. He's very wealthy. He's ambitious, (like we used to be). And, he, is not American.

He has Already started to play the Game and we are Unaware. We don't even know what the Game is. What is the Game? The Game – is - what I call Solar System Monopoly. This will characterize the 21st and 22nd centuries and beyond. The Hell you say. Yes, I say – and if we ignore this it shall be at our extreme peril.

I will tell you now how the First Major win of this Game of Solar System Monopoly will end about fifteen years from now and who this Gunslinger is.

But First:

- I. Over the next five years, America will struggle uncomfortably toward some politically acceptable level of economic recovery. However, I see it this

way. With the passage of time over perhaps the last twenty years (not even including the additional serious damage caused by this Great Recession,) America has become weaker not stronger vis-à-vis other countries as measured against traditionally important criteria. So we must ask, where is America going?

- II. And for those of us that are space geeks we must also ask, where is this planet's space future going?
- III. Who will be in charge – as the dominant force leading the way?
- IV. How different is America today from 1969? Educationally, financially, politically, industrially, and especially motivationally.
- V. Is America weaker or stronger in a global perspective?
- VI. If America is a lot weaker than it was in 1969, relative to the above criteria, how close in years to the tipping point is America now to being relegated to the number two position across the board?
- VII. Who would number one most likely be? We are all probably thinking China. So let's take stock of our situation.

What are some serious American Problems that are probably permanent?

- I. The enormous cost of entitlement and welfare programs.
- II. The enormous cost and power of government unions at all levels of government that directly lead to those excessively fat and over indulgent employee retirement and benefit programs.
- III. The damaging growth and costs of the national debt.
- IV. The embarrassingly poor quality and results of our public educational system.
- V. An increasing and significant cultural bias toward socialism.
- VI. And a pathetic lack of truth, honesty, skills and judgment in our government.

Yes there are other problems, but these are some of my favorites.

Extrapolating from this, you probably do not get a future picture of large, ambitious American space budgets. This is key.

Another problem of course is that, NASA is a shadow of the space agency it once was in the 1960's and 1970's. Those were great times weren't they, what a difference. No, it's not a function of enough money.

But that fits right in because America isn't the same country either for many reasons some of which I've already mentioned.

Now, you'll notice that these years pertained to the moon race and the lunar missions. America, at that time, had a national vision with real honest to God motivation behind it, fear. The fear was all about the Russian space program and their potential capabilities. But, it produced in America, sizzle, energy, ambition, creativity, motivation and excitement with national pride at the core.

America today, has no grand vision. And America probably couldn't afford one, anyway, even if it did.

Georgi Arbatov, Soviet expert on the United States said this at the end of the Cold War, "We are going to do a terrible thing to you. We are going to deprive you of an enemy."

Now, here is the really bad news for America. China already has a Grand National Vision. And China is achieving rapid progress on their national vision. Their vision is that China wants to be indisputably number

one in the world, measured any way you want to measure with the possible exception of freedom and some would argue they have more freedom now than they have ever had. China's people are excited and proud to be Chinese. Their standard of living is moving dramatically up in awesome displays. You can't pick up a magazine or newspaper without reading about the emerging power of China. But I believe the best, by far, is yet to come for China. I have thought about the Chinese space program that includes as a center piece, landing Chinese on the moon and creating a base. I have concluded that this is of course part of their national vision, but very different from the American lunar program. I have reasoned that China will not just send their Taikonauts to make footprints and collect dirt. There would be really no point in China simply repeating what the Americans did when you have the opportunity for creating a sea change in global power that may only come along in a thousand years. Since China is already committed to going to the moon thereby risking national honor, life and capital in trying to succeed in these efforts, why not take the all important syllogistic next step, ownership, ownership, ownership. I believe they will make ownership claims wherever they land and are able to move about.

And this process shall continue for years until they have surveyed, marked and claimed the entire body.

Moon and Maybe Later Mars

China's

Prospects for Ownership

Four Issues to Consider

First: Motivation – Why do it? Is the Moon Valuable? What would China gain?

Second: How to acquire Ownership?

Third: What and/or who is to prevent this from happening?

Fourth: When might this happen? (I'm going to say between 2022-2026.)

First: Motivation

What is there about the moon that is or would be valuable to the Chinese from an ownership position?

- A. Good location as a jumping off place to the rest of the solar system.
- B. Mining and transporting helium III to Earth as a new, clean power source for perhaps the next two hundred to five hundred years.
- C. Water ice for human consumption, rocket fuel, irrigation and foundation of life as we know it, etc.
- D. Colonization to save the species.
- E. Sell or lease tracks of territory on the lunar surface.
- F. Sell licenses to other countries or corporations that would provide surface power, transportation etc, etc.
- G. Provide leasing and licensing rights to other countries and corporations for research, etc, etc.
- H. Major: Chinese National Pride and Confidence

Enormous uplifting of Chinese people (everywhere). It's great to be Chinese

Americans still basking in lunar glow after 40 years

Americans don't own even 1 sq. ft.

- I. Probably – Most Significant and Valuable

Global psychological impact – The tsunami of maximizing imperial global image to all nations everywhere.

This would endure for a very long time Priceless

Maybe once in a millennia opportunity

Nothing else China could do in the next fifteen years that would be as great!

Second: How to acquire ownership?

What would China need?

a. Internal Financial Resources and International Commercial and Political Influences accumulated and distributed globally sufficient to compromise complaints that could turn into meaningful action.

- China, a dramatic engine of growth
- American growth much less
- China debt not a problem
- America 15 trillion dollars in debt
- China Liquidity – 3 trillion dollars in cash
- America no cash
- China world's largest importer
- China world's largest exporter
- China 2nd largest economy in the world as of early 2010
- IMF projects China #1 in GDP in 2016
- China holds over 25% of all foreign held American debt.

- No Bucks. No Buck Rogers.
- Have Bucks. Can buy Buck Rogers.

b. Technological Capability

Where is China now much less in 2022?

2007 Michael Griffin stated “When we get back to the moon we will be greeted by the Chinese”.

China recently adopted new national philosophy moving from “Made in China” to “Innovated in China”.

Space program : Chang’e – 2 is a lunar probe launched in 2010 to test lunar orbital mapping and soft lunar landings.

China’s first stealth fighter bomber.

August of 2010 China conducted a very close maneuver of two satellites to allow them to inspect each other at a range of 200 yards.

2011 Tiangong- 1 launching of first space lab module

2013 Chang’e – 3 intended to be first unmanned lunar landing craft.

2017 Lunar sample return mission.

c. Ability to stay focused

Plan ahead

China famous for this

- d. **Actual execution of reaching Moon** – enough teams, enough rovers -
Start process of surveying – placing markers, etc...

Third: What/Who to prevent this?

- A. Legal Permission – 1967 Space Treaty, not a problem

Part one. United Nations treaties

A. Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies

Article XV

Any State Party to the Treaty may propose amendments to this Treaty. Amendments shall enter into force upon their acceptance by a majority of the States Parties

Article XVI

Any State Party to the Treaty may give notice of its withdrawal from the Treaty one year after its entry into force by written notification to the Depositary Governments. Such withdrawal shall take effect one year from the date of receipt of this notification.

B. International Public Opinion, (not sufficiently detrimental)

C. United States or some consortium of other countries (Too little, Too late!)

Fourth: When might this happen? Probably between 2022 – 2026

Of course Mars would likely be next as a Chinese target maybe in late 2020's.

What I'm going to suggest is that if China proceeds to lay ownership claims to vast territories of the moon this will hopefully produce the fear factor necessary to motivate the Americans. It may and probably will be much too late for the Americans to respond to China securing the moon. However, Mars would likely still be available. With the land mass of Earth, Mars is special in many ways. But, how would America be able to pay for such a competition? And with NASA having such a poor track record of performance for the last 30 years of completing programs on time and on budget, who would be in charge of getting

the work done? I don't have an answer for this last question, but I do have an approach to the first.

I foresee the possibility of a unique situation. What if the American government found that military spending could safely decline by 10% in real dollars, while at the same time, increasing spending on defending America's chance to own portions of Mars. Current American defense spending not including black budgets is over \$600 billion dollars per year. If that 10% reduction in defense spending were given to a Mars ownership space program, that would create an additional \$60 billion per year as an increase to the space budget. The current military trend is away from wars costing massive loss of life and injuries but wars still cost massive amounts of money. The future military trend is to do both, reduce the losses of life and injuries while also reducing the insane financial costs of wars. For example, two trillion dollars for the Iraq and Afghanistan wars has already been spent. The American public is so disgusted with the cost of these two wars, that this bad taste will linger for maybe 10 – 15 years once they're over. If money for defense could be reduced by 10%, a comparable increase in space expenditures could be a good substitute for this 10% reduction to feed the military industrial complex. So what happens when this money is transferred and reallocated?

#1. A Mars quest for ownership program would produce less loss of life and injuries as compared to that of those same 10% defense dollars engaged in wars that it would be hard to even measure.

#2. Small and Large companies that profit from war and the making of war materials with an aerospace manufacturing capability could shift from one to the other. Their boards of directors couldn't care less so long as total contracts remain equal or greater.

#3. Science and human knowledge would experience a quantum jump.

#4. After 40 years, America would finally have a new vision, again supported by fear, this time from China.

Acquiring a Mars presence and securing territories of ownership will take a number of years even if we are pushed by China. These large expenditures, continuing for many years, will provide an equal economic substitute for the reduced economic stimulus from lower war production budgets. In addition, this would soon produce the creation of an important economic dynamic. When we landed on the moon then left only footprints, no commerce was possible. With Mars under ownership, development and commerce would produce a nexus for multiple new industries. America would experience a rebirth in vision, excitement, science, prosperity and global prestige.

America might just achieve something that would be worthy of respect from that generation of Americans known as the Greatest Generation.