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Space Neg
Wave 2

Space Updates

China Coop.....1

Colonization Stops Extinction 2-3

Privates Key to Colonize 4-6

Military Hurts Privates 7-8

China Coop

China wants cooperation with the US on meteorology, Earth resource monitoring, remote navigation, and joint shuttle docking. The government should move forward with this cooperation as soon as it can reach an agreement.

Larry M. Wortzel, chairman of the U.S.-China Economic and Security Review Commission, 6-12-06, http://www.space.com/spacenews/archive06/WortzelOpEd_052906.html

However, there are good models for international civil cooperation in space, even between strategic rivals. When President Richard Nixon raised the possibility of joint spaceflight with Russia in 1970, few would have imagined that after the February 2003 Columbia shuttle disaster the Russians would put an American into space. Yet had the United States and the Soviet Union not entered into measured programs of cooperation in civil space exploration, such an outcome would have been impossible. We should be in a position to do the same thing with China.

In such areas as telecommunications, meteorological cooperation, Earth resource monitoring, remote sensing and navigation, the Chinese might be eager to move forward with deeper cooperation. Here, however, national security concerns will moderate the pace. In other areas like developing a joint docking device, we should move forward as quickly as both governments can create an agreement.

There also are issues that require deeper cooperation between the United States and Chinese governments. China intends to launch some 100 satellites in space by the year 2010, and to double that number to 200 by the year 2020. Space is going to get crowded. Our space agencies must be ready to de-conflict orbits, track space debris in a coordinated way and manage safe deorbiting.

Colonization Key

Colonization is key to save human civilization from asteroids that will inevitably hit earth causing human extinction.
William **Burrows**, Co-Founder Alliance to Rescue Civilization "Space and Civilization", 2-3-**03**

Rocketry's safety record has improved dramatically over the years and continues to do so. But it will always carry danger. The question to ask is whether the risk of traveling to space is worth the benefit. The answer is an unequivocal yes, but not only for the reasons that are usually touted by the space community: the need to explore, the scientific return, and the possibility of commercial profit. The most compelling reason, a very long-term one, is the necessity of using space to protect Earth and guarantee the survival of humanity.

In "Encounter With Tiber," a 1996 novel by astronaut Buzz Aldrin and John Barnes, the commander of a large interstellar space cruiser justifies its immense journey by warning its crew: "There's not a place in the universe that's safe forever; the universe is telling us, 'Spread out, or wait around and die.'" Indeed, this is an abidingly unsafe neighborhood. It is a cosmic shooting gallery in which one horrendous asteroid or comet impact roughly 251 million years ago virtually brought the dinosaurs into existence by killing off their competitors, and another, which struck about 186 million years later, is thought to have finished them off.

There are so many large asteroids that cross Earth's path with potentially catastrophic consequences that an international Spaceguard program has been started so astronomers can catalogue them. This would allow one that is on a collision course to be deflected or destroyed. No astronomer doubts that several are headed our way.

This is not to say the sky is falling. But it is to say that it is prudent to spread out. For the first time in history, we have the wherewithal to do so thanks to access to space. In order to ensure our survival, it is imperative that we move beyond the short-term "fight or flee" mentality and think about using space to protect Earth and civilization for the very long term.

Colonization Key

We must get off the rock to protect the human race from inevitable extinction. Colonization now during a time of economic success is key

Robert Roy **Britt**, Senior Science Writer, 10/8/**01**, "The top three reasons to colonize space" http://www.space.com/missionlaunches.colonize_why_011008-1.htm

It's no secret. Sooner or later, Earth's bell will be rung. A giant asteroid or comet will slam into the planet, as has happened many times before, and a deadly dark cloud will envelop the globe, killing much of whatever might have survived the initial impact.

"We live on a small planet covered with the bones of extinct species, proving that such catastrophes do occur routinely," says J. Richard Gott, III, a professor of astrophysics at Princeton and author of "Time Travel in Einstein's Universe."

Gott cites the presumably hardy Tyrannosaurus rex, which lasted a mere 2.5 million years and was the victim of an asteroid attack, as an example of what can happen if you don't plan ahead.

But space rocks may not be the only threat. Epidemics, climatological or ecological catastrophes or even man-made disasters could do our species in, Gott says. And so, he argues, we need a life insurance policy to guarantee the survival of the human race.

"Spreading out into space gives us more chances," he says.

And the time is now: History instructs that technological hay should be made while the economic sun shines.

"There is a danger we will end the human space program at some point, leaving us stranded on the Earth," Gott warns. "History shows that expensive technological projects are often abandoned after awhile. For example, the Ancient Egyptians quit building pyramids. So we should be colonizing space now while we have the chance."

Privates Key

Private corporations can have independent space colonies within 10 to 15 years, but reliance on the government dooms space colonization efforts to ultimate failure.

Robert Roy **Britt**, Senior Science Writer, 10/8/**01**, "The top three reasons to colonize space" http://www.space.com/missionlaunches.colonize_why_011008-1.htm

But ultimately, many scientists say, finding signs of life on Mars might require human missions. The gargantuan cost of sending people to Mars, however, has prevented any firm plans from taking shape. Meanwhile, many space enthusiasts have given up hope that NASA will get us there. They think the economics of human space flight will be driven by capitalism rather than science.

Sid Goldstein thinks any effort to get a Kmart on Mars should also help cure social, environmental and economic woes back home. Yet he worries that if some decisions aren't made quickly to put humans permanently in space, **we may never go.**

"I believe that humans living independently in space will be achievable in 10 to 15 years, but only if we are serious," Goldstein says. And he's got some ideas about how to get serious.

In his book, "You Can Make It So: How To Cure Our Environmental, Economic, And Crime Problems," Goldstein analyzes the long-term health of the economy and the environment. He argues that investments in space colonization will never be made without a massive commitment and tremendous cooperation between government, industry and the people.

If we rely on the government to put us into space, Goldstein says, expect delays, cost overruns, and ultimate failure.

Instead, he recommends economic incentives to encourage the private sector to rapidly develop the technologies needed for long-distance space travel and colony survival. The investments would be designed to benefit the economy and the environment back home, as well.

Privates Key

Privatization of space is key to successful colonization. Public projects fail.

Sam **Dinkin**, regular columnist for "The Space Review", 7-26-**04**, http://www.thespacereview.com/article/193/1

With no privatization and no military protection, there will not be much colonization. Antarctica may be free of the intellectual pollution brought by property rights, but there are also no citizens, no development and very little in the way of commercial exports. Alaska, in contrast, hands out checks to its citizens rather than charging them taxes. Antarctica is also more inaccessible, so there may be another explanation for the disparity.

Texarkana offers a starker side-by-side comparison of different law leading to different levels of commerce. The city has a street running down the center of town where one side is governed by Arkansas law and the other is governed by Texas law. The main difference between the two jurisdictions is the ability to collect a high rate of interest (Arkansas caps their interest rate at 5% above the federal funds rate). This minor limitation on commerce means that there are many more stores on the Texas side of the street.

But suppose for a moment that we do have the opportunity to create a viable space economy. Gagnon continues, "Thus, after the taxpayers have paid all the R&D, private industry now intends to gorge itself on profits. Taxpayers won't see any return on our 'collective investment.'"

They are seeing little return now on their collective investment. Public returns will be great indeed if space development is successful. If privatization results in profits, those profits can be taxed. If private suborbital, orbital, point-to-point, lunar and planetary development lowers the price of access for public science, exploration and commerce, then that is a benefit. If colonization is successful, the public will have an insurance policy against extinction. Successful colonization will also energize the spirit of humanity. Colonizing Mars will double the amount of land available to the species and potentially more than double solar system GDP as a commerce of ideas and builds up between the growing Mars population and Earth.

Privates Key

Private companies would allow colonization. Government intervention stifles free enterprise.
Sam **Dinkin**, Ph.D. economist, 5-10-**04**, "Property rights and space commercialization"
http://www.thespacereview.com/article/141/1

It's time to start thinking about commercialization and colonization of the Moon and Mars. Fifty years after the Wright Brothers, we had global airlines. Fifty years after the invention of the integrated circuit we have a trillion-dollar-a-year industry. Cell phones alone account for tens of billions of dollars of government auction revenue. We need to make the regulatory environment for 50 years after Apollo now. An American private property regime and capitalist economic system can encourage space commercialization and colonization. A utopian property regime and a communitarian economic system will keep out commercialization and leave colonization and exploration in the realm of governments.

Mil hurts Privates

Militarization of space trades off with commercial use of space. Commercial space is key to the global economy and is better for the military longterm.
Charles V. **Peña**, defense policy expert at the Cato Institute, 20**02**,
http://cns.miis.edu/pubs/opapers/op10/op10.pdf

And, as John Logsdon, director of the Space Policy Institute at the George Washington University points out: "There appears to be no demand from the operators of commercial communication satellites for defense of their multibillion-dollar assets. If there were to be active military operations in space, it could be difficult not to interfere with the functioning of civilian space systems."[5]

In other words, weaponizing space could be costly to an American industry that has great promise to grow and increase its contribution to the U.S. (and world) economy. Ultimately, a vibrant commercial space industry will support and enhance U.S. military capabilities far better than letting military requirements dominate space policy. Therefore, the government should avoid overregulating commercial space activities and imposing costly military requirements.

Mil hurts Privates

Space mil. Trades off with corporate use of space – it increases costs and creates space debris.

Dr. Phillip C. **Saunders**, senior research professor at the National Defense University, 2003
http://www.space.com/adastra/china_implications_0505.html

There are some incentives to avoid confrontation. Proliferation of space weapons would inhibit scientific cooperation and raise costs of commercial satellites. (The global trend in both sectors is towards international collaboration to reduce costs.) Actual use of anti-satellite weapons could create space debris that might damage expensive commercial satellites. Commercial users of space are therefore likely to resist efforts to deploy counter-space capabilities.