Forming an American Spacefaring Advisory Group to the National Space Council

### By Mike Snead

Past US presidents, with the exception of John F. Kennedy, never expressed any serious interest in America as a true human spacefaring nation. When this is placed in contrast with President Washington and, especially, President Jefferson's intense interests in opening America's western frontier, the lack of interest in America becoming a human spacefaring nation is troubling. What would have happened if Jefferson had ignored the West-never bought the Louisiana Territory from France or sent Lewis and Clark west to explore it? Today, we need to ask where exactly America, as a great nation, is headed if it does not become a true commercial human spacefaring nation? It is now extremely important that pro-spacefaring Americans have their voices heard as the path forward for America in space is charted by the Trump Administration.

## National Space Council reestablished

On June 30, President Trump reestablished the National Space Council. Initially created by law, it was briefly used by President George H.W. Bush from 1989 to 1993, but ended under President Clinton. As the legislation is still in effect, President Trump could reestablish it by executive order. While many in the pro-spacefaring movement were encouraged by this action, what does this really mean? Does this mean the Trump White House will adopt key space policies advancing America towards becoming a true commercial human spacefaring nation? In this regard, President Trump's remarks at the signing ceremony are encouraging: "we are going to be leading again like we've never led before." However, as the internal fighting over budgets takes over, will we instead see more of the same neglect of American human spacefaring enterprises that we've seen over the last several presidential administrations? Recall that it was neglectful space transportation policies of the George W. Bush and Obama Administrations that led to the termination of the Space Shuttle without a better capability coming into operation, effectively ending America as a human spacefaring nation.

China was once a leading seafaring nation, building large A primary purpose of a presidential fleets for exploration, trade, and warfare. Their seafaring exploits spanned roughly 1,800 years with pre-medieval contacts possibly as far away as North Africa. In the 1400s, seven large expeditions into the Indian Ocean

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were undertaken that, had they continued, could have brought the Chinese to Europe prior to Christopher Columbus's voyages west. But, much as establishment Washington lost interest in American human space exploration after the first Moon landings, the Chinese government establishment lost interest in their seafaring explorations. By 1500, China had turned insular, limiting its seafaring operations to modest vessels trading within China's existing trade network. This opened the proverbial door for the expansion of European seafaring and worldwide colonization—including, ironically, colonies in China.

A primary purpose of a presidential advisory council is to aid the president in not losing sight of a key piece of the "big picture" while dealing with the day-to-day urgent matters requiring his decisions. While it would appear that the National Space Council is such an advisory body, it is really just a subset of the president's cabinet with a few others. Its membership includes the Vice President (as chair); Secretaries of State, Defense, Commerce, Transportation, and Homeland Security; Directors of National Intelligence, Office of Management and Budget, and Office of Science and Technology Policy; Assistants to the President for National Security Affairs and Homeland Security and Counterterrorism; NASA Administrator; Chairman of the Joint Chiefs of Staff; and, others as determined by the Chair.

Obviously, this council is formulated to review and recommend space policies requiring presidential signature or legislative action. The preparatory work will be done by the staff of the participating departments and agencies, with White House coordination through the Council's executive secretary. Since President Trump has not (yet) emerged as a champion of America becoming a commercial human spacefaring nation, the "we are going to be leading again like we've never led before" transformational big ideas that will bring this about must come from somewhere. I believe these will likely come from pro-spacefaring Americans, provided we have a voice in the upcoming policy deliberations.

The American public adopted a vision of America as a human space exploring nation in the 1950s. Former German rocket engineer Wernher von Braun, a myriad of hard science fiction authors, and key illustrators led this effort through highly-technical magazine articles, TV shows, and science fiction stories and movies. The public's expectation of American leadership in this effort was shattered by the early Soviet successes in putting the first satellite and the first human successfully into orbit, even if the US government secretly waited for the Soviets to launch the first satellite. Public pressure mounted for an American response. While the military

focused on the strategic delivery of nuclear weapons via ballistic missiles and the launching of national security satellites into orbit, NASA was created to lead America's human and robotic space exploration activities. President Kennedy, speaking in 1962 to raise public support of his manned Moon landing program, called for America to be "the world's leading space-faring nation"—a call that has not been seriously pursued by any president thereafter.

Given that President Trump's reinstatement of the National Space Council required only an executive order, it is possible that the reinstatement was just making good on a campaign promise to influence politically important "space" states such as Florida, Alabama, and Texas. Regardless, at least through the National Space Council, a path to the vice president and, from him, to the president now exists to consider and adopt transformational changes in the American human space enterprise where it had not existed in the previous three administrations. This path could let the voices of pro-spacefaring Americans be heard within the Oval Office.

The executive order also establishes an ad-hoc User's Advisory Group of "non-Federal representatives of industries and other persons involved in aeronautical and space activities." The name implies some form of industry group working in confidence to "provide advice or work product solely to the Council." While the

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formation of such an advisory group is appropriate, the public will likely not see the results of this group's activities prior to the release of signed updates to US space policies. The name suggests that this group will primarily focus on preserving the status quo of existing federal contractors and space business interests. Within the federal government, funded contractors and business interests have a very powerful voice, especially when there is no organized public voice. The absence of an organized public voice input into the National Space Council is a glaring omission.

Pro-spacefaring Americans should not be content to sit on the sidelines and hope for transformational policy changes to spring forth through space policy proposals coming from the Council or User's Advisory Group. In the past, key space policies have been sprung on the public as signed presidential directives without any period of public comment, meaning that such policies are developed in a very insular environment without public review and input. Given that there have been no public indication of transformational policy ideas from the participating departments and agencies, more of what we have today in terms of policy is the likely outcome absent public intervention. The same is likely true for recommendations emerging from the User's Advisory Group given the expected corporate affiliation of the participants.

The need for the United States to become a true human spacefaring nation this century is essential to remain secure as a great power. Kennedy stated this need over a half-century ago. To remain a great power, America must solve, at least, three pressing threats. First is the persistent threat posed by ballistic missiles. This threat did not disappear with the fall of the Soviet Union. Recent events argue that the threat has increased. A space-based active component of ballistic missile defense remains essential for effectively negating this threat. Second is the need to achieve true sustainable energy security. The United States cannot remain a great power while dependent on non-sustainable fossil fuels. The United States must undergo an orderly transition to sustainable energy sources under its control. Finally, the world must address the environmental security threat posed by the abnormally high and rising atmospheric carbon dioxide concentration. Absent substantial scientific certainty that this will not cause significant harm, technological steps must be taken to remove this threat. Only GEO space solar power provides the technological solution to resolving the world's carbon dioxide environmental security threat while also providing the United States with energy security using space-based sustainable energy.

Undertaking a space-based ballistic missile defense and establishing American space mining, space manufacturing, space power, space settlement, and spacefaring logistics industries necessitates transformational changes in United States space policies, legislation, government operations, and deployed spacefaring capabilities. If the initiating policy changes do not emerge from the Council, they will likely not happen in this administration given the disorganized political state of Congress. It will be far too easy for establishment staff, having risen to their position during the last two inactive administrations, to ignore, oppose, or simply kill ideas threatening to the status quo. Thus, organized public political pressure from pro-spacefaring Americans is now needed.

#### The need for public involvement of pro-spacefaring Americans

To return America to a position as the "world's leading space-faring nation", there is a clear need for public discussion and robust debate of America's future in space beyond the talking heads and occasional op-eds of the national news media. From personal experience, America's approach to its human space enterprise is antiguated when assessed from the perspective of what America's aerospace industry is today actually capable of achieving. With America being capable of doing so much more—and getting much more from space—the expected updating of key national space policies by the Council must move America to deploying true commercial human spacefaring capabilities and beginning a spacefaring industrial revolution. In short, America cannot be bold in space without first having the National Space Council be bold in its recommendations. Only an engaged public can demand this happen. The public must have a voice in the deliberations of the Council to short-circuit the likely stodgy recommendations of staff and a User Advisory Group focused on continuing the status quo.

# When President Reagan came into office in 1981, a unique public group arose to try to influence national space policies. The was the <u>Citizen's Advisory Council on</u> recommendations.

# America cannot be bold in space without first having the National Space Council be bold in its

National Space Policy. Formed in 1980 from a joint agreement of the American Astronautical Society and the L5 Society, it fostered public discussion of the goals and means for the United States to advance its national spacefaring capabilities. Its early efforts focused on national ballistic missile defense by exploiting the benefits of space-deployed defenses to defeat—not just deter—a ballistic missile attack. After the fall of the Soviet Union, the Council's focus shifted to advancing American commercial spacefaring capabilities. The Council's efforts ended as presidential interest in America's human spacefaring enterprise faded under President Clinton when he disbanded the first National Space Council.

To engage the public in developing Council recommendations, an ad-hoc American Spacefaring Advisory Group should be added to the organizational structure of the National Space Council. Comprised of pro-spacefaring Americans not otherwise involved in Council activities, the American Spacefaring Advisory Group would develop detailed and technically feasible recommendations on how to transition America into a true commercial human spacefaring nation. Forming such a group is common in technical communities to provide informed advice to the government. A relevant specific example was the ad hoc group formed in 2007 to assess GEO space solar power for an office in the Department of Defense. The work was done in an open manner, resulting in a published report.

Without the constraints of expected conformity to the status quo—either governmental or corporate—the American Spacefaring Advisory Group would engage the public with American spacefaring futures that are both scientifically valid and technically feasible. The public would gain an understanding of what America's aerospace industry is really capable of achieving in the coming decades. Modern 3-D visualizations, using theater-quality graphics, would inform the public of what can be achieved much as illustrated magazine articles and TV shows did in the 1950s. This would not be science fiction, but highly-realistic, hard science and engineering depictions of a future with America as a true commercial human spacefaring nation.

### Petition the White House now

If pro-spacefaring Americans wish to see America become a true commercial human spacefaring nation, President Trump has nudged open the door to this future by reestablishing the National Space Council. Now, pro-spacefaring Americans must push open the door by calling for a strong and effective voice in developing the key national space policies that could jumpstart this exciting future. All pro-spacefaring Americans should write and call the White House asking for the formation of an American Spacefaring Advisory Group to provide prospacefaring Americans with an effective voice in the deliberations of the National Space Council. Further, transparency in the formulation of key policies that will guide commercial spacefaring activities, using public review and comment procedures comparable those used in the formulation of federal regulations, should be called for before new space policies are issued. Pro-spacefaring Americans should be united to not let another presidential administration neglect America's commercial human spacefaring future. We must insist that our voices be heard!

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