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## Concluding Assessments

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## Concluding Assessments

### Opening Remarks

We are at a critical juncture in the evolution of space – we need an intellectual foundation to guide policy and actions. Space was a major instrument and force in shaping the 20<sup>th</sup> century and the nation’s strategy – Apollo, nuclear deterrence, international cooperation, technology advances, and international conduct exemplify this. A central question is: will space be a similar force in 21<sup>st</sup> century – will it be determinant of great power status, a key instrument of national power? Today, there is the recognition among leaders that space is not a discretionary activity, but essential to the well-being of the U.S. and the world community.

We are facing challenges in space in all directions – problems in development and acquisition, gaps in critical on-orbit capabilities, systemic program and budget over-reach, workforce and industry base issues, foreign competition, space as a contested domain, and increasing interconnection and interdependence across all space sectors. The Obama Administration is interested in space and is taking some important steps, such as: a review of the way ahead for imagery, including Future Imagery Architecture and NRO organization and management; the Augustine panel review of options for NASA’s human spaceflight programs; DOD Space Posture review; the OSTP and OMB FY2011 budget guidance; and the reviews of National Space Policy and export control

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policy. There is reason for optimism and hope, but also for realism.

One essential ingredient that must be included is the development of national space strategy and a governance mechanism to coordinate decisions and actions at the national level. National Space Policy is relatively consistent, but it does not guide and drive decisions and actions. There is the fundamental need for strategic “ways and means” to achieve policy “ends.” The development of space strategy should consider the full range of tools – programs, investments, human capital, infrastructure, regulatory, and incentives and buying practices – that the U.S. Government can employ. Also, there is need for governance structures where agencies can execute and where the U.S. President can coordinate decisions and actions, such as through the NSC Deputies structure.

Ultimately, space is critical to continued U.S. world leadership. Space is a strategically important enterprise for the nation – it contributes to the nation’s instruments of power and influence in areas of commerce, security, politics, and international relations in unique and asymmetric ways – with far more value than simply the dollars and people devoted to it. The real question today is: does the Obama Administration see it so – that space is an essential enabler of national goals for climate change, security, international cooperation, and domestic competitiveness in education and technology.

### Discussion

The concluding session identified that there needs to be a “center-of-gravity” at the level

of the United States President with regard to space. Further, the absence of a true strategy for space is an issue. A strategy can provide guidance for how to apply the full range of tools to achieve ends. What is needed is for a formulated strategy to be implemented through effective governance mechanisms and through persistent leadership. All this is essential as space is critical – a strategic enterprise and one with asymmetric advantages.

Three key elements to implement national policy and a strategy for space were discussed: (1) presidential leadership to set and establish the agenda for space; (2) presidential persistence to see the agenda through formulation and implementation; and (3) a responsive bureaucracy. Effective implementation is essential as U.S. space programs are at a critical juncture. Space is a dominant force and tool for national power and national security, and there exists a mature industry that plays a fundamental role in space activities. Success for policy and strategy development will be determined by whether space can be linked to national goals and priorities.

There are number of specific challenges facing the space community. One challenge is the need to establish the intellectual foundations for thinking about space at the strategic level. Most fundamentally, what is the strategic concept with regard to space – is it part and parcel of global commons management? Should we worry more about ensuring our access versus denial of others – is this is a better way to ensure our asymmetric advantage?<sup>1</sup>

A second challenge lies with the reality of constrained budgets. This leads to problems of

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<sup>1</sup>One panelist remarked that if you have to prioritize, prioritize our access over denying others' access.

over-reach in system development and in excessive program demands relative to resources and budgets. For example, NASA cannot execute current plans for human spaceflight within current and projected budgets, and the QDR effort points to trade-offs on space programs and projects. This all leads to the conclusion that program demands, in an environment of constrained budgets, can only be met through partnering with the space commercial sector, cooperating internationally, and shaping the governance environment regarding space.<sup>2</sup>

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A third set of challenges discussed concern acquisitions and industrial base issues, including export controls. Of concern with acquisitions, is how to address gaps in new system development, especially for the military and intelligence space sectors. Export controls and cuts in research and development (R&D) funding erode the U.S. space industrial base. This erosion is further exacerbated by the fact that unmanned access to space is reliant to a large extent on Russian rocket engines. There are also cross-cutting industrial base issues; if NASA gives up solid rocket motors, for example, will the U.S. military have to pay large fixed cost to maintain a solids rocket industry?

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<sup>2</sup>It was discussed in this session that shaping the governance environment regarding space can mitigate the negative consequences of challenges posited by foreign competition and space as a contested domain. In general, shaping the environment to one more favorable to the U.S. can be accomplished by asserting U.S. leadership in the area of collective action for security, commercial, and civil space activities.

