

Toffler Associates'
FUTURE SHOCK FORUM



October 23rd & 24th, 2007



**The Ritz Carlton
Washington, DC**



Insights about Innovation: A Platform for Growth
Summary of the 2007 Toffler Associates
“Future Shock Forum”

Toffler Associates®, the executive advisory and consulting firm founded by world-renowned authors and “futurists” Alvin and Heidi Toffler, convened an exclusive forum on October 23rd and 24th, 2007, at the Ritz-Carlton Hotel, Washington, DC, to commemorate the 37th anniversary of the publication of the Tofflers’ global bestseller, *Future Shock*. Participants included senior executives from U.S. and international businesses in a variety of industries as well as from local and U.S. Federal government.

The 2007 Future Shock Forum focused on innovation – what it means in the 21st century knowledge-age economy and society, how we foster it in our organizations, what barriers we face trying to innovate in the public and private sector and how we can overcome those barriers. Innovation has always been important to economic growth, but as more and more of our wealth creation is driven by the intangible resource of knowledge, innovation has become a primary – perhaps *the* primary – discriminator between competitors, and between success and failure in the marketplace. Too many of the institutions and business practices of both our public and private sector organizations, developed and honed in the industrial era, struggle to keep pace with the accelerating economic and social environment and its demand for constant innovation. Toffler Associates convened the 2007 Future Shock Forum to bring together a diverse group of experts to consider together how to propel our organizations to success as innovators.

To explore some of the key issues and challenges associated with innovation, Forum participants divided into three groups. The first group looked at the role of human talent: people are at the heart of innovation, so how do we encourage and develop the people in our organizations to be innovative? The second group examined how innovation in what Alvin and Heidi Toffler call the “non-money economy” drives, and benefits from, innovation in the more traditional “money economy” – how can we foster more and more crossover between the “two economies” to create even more wealth? The third group examined the differences in the pace, style, and substance of innovation in the public and private sectors – what can we do to rectify the “desynchronization” between government and business and accelerate the flow of new ideas and business practices from one sector into the other (and particularly from business into government)?

The paragraphs that follow are not a transcript, but rather Toffler Associates’ summary and synthesis of the Forum participants’ discussions. It condenses some areas of discussion, eliminates some that were repetitive, expands some, and recombines others to illuminate themes that emerged. Participants spoke as individuals rather than as representatives of the organizations with which they are affiliated. Any errors in interpretation or nuance are, of course, ours.

Encouraging and Developing Human Talent

Participants in the first group quickly identified the attributes of people that they believe are the key to fostering innovation in our organizations – to innovate, they agreed, we need in our workforce individuals who are self-confident; who are not afraid to take risks; people

who are “horizontal integrators” (adept at connecting the knowledge and resources from different parts of the organization and from outside); people who are collaborative by nature, and who are generalists rather than narrow specialists (since generalists “do not know any better, they tend to innovate more”); people who have a history of creative problem-solving in their personal lives and can apply that creativity in diverse work-related contexts; people who are intellectually curious and critical thinkers and able communicators.

Encouraging these attributes is difficult once people have already arrived in the workplace—innovation is a learned behavior, and the earlier it is learned the better. It is, however, increasingly difficult to inculcate those attributes early in life. Parents have the greatest responsibility for doing so, but the demands of our information-age careers and the many complexities of modern life compete mightily for parents’ time. As a result, participants noted, we are relying more and more on societal institutions to help us raise our children, and hopefully to foster in them the attributes of innovation and creativity that we want and need them to have. Unfortunately, the very institutions we rely on are increasingly incapable of doing so. Most schools and social welfare systems were designed in the industrial age: big, heavy, top-down bureaucracies perfectly suited to the age of factories and mass mobilization, not an environment where innovation thrives or is welcome. The information age, however, demands new bureaucratic and public structures. Otherwise, our children will fall hopelessly out of synch with the rest of society—a phenomenon the Tofflers and many of the participants view with increasing worry.

Participants suggested a particular challenge getting the “current generation” to develop these attributes and bring them to bear in their work later in life. These younger people, here defined as recent college graduates and incoming employees, too often have “expectations... through the roof,” as well as a sense of entitlement. Participants suggested that, too often, the incoming generation of workers is difficult to motivate, difficult to retain, and difficult to work with. Many younger people seem to believe are “entitled to awards and promotions,” and not prepared to do the hard work that is synonymous with innovation. Of course, these complaints mirror the sentiments of practically every parental generation about their children throughout the 20th century – a century which nevertheless saw astounding gains in efficiency, innovation, and output with each new generation). Moreover, it misses the point. Younger people today are of course extremely hard working and innovative, just not in ways we are used to thinking about. They in fact exhibit many of the attributes that the participants noted as vital to innovation. They volunteer for both local and international organizations in numbers previous generations would find remarkable. The structure of the semantic web enables them to draw cross-connections and interdependencies in a way that would make last century’s researchers jealous. Online research tools such as Wikipedia—routinely derided as “ruining research” in the discussion—allow today’s youth to be curious about a broad range of topics simultaneously, many of which their parents did not even know existed. These hyper-curious children use the tools their parents invented in ways their parents did not imagine.

So what is the problem in getting our people to innovate in the workplace? Our participants identified there are

several problems. Current expectations surrounding parents demand ever more time devoted to their jobs, which leaves less time available to be involved in their children's education. Participants stressed the importance of providing the members of our workforce with the flexibility to do their jobs in ways that allow them more of the time they need to spend more time fostering the attributes of innovation in their children. This long-term view might help make the next generation of leaders more confident and innovative as they tackle the challenges of the future.

Moreover, this can provide shorter-term benefits as well, enabling our current workforce to be more innovative and creative today in how they do their jobs. Providing our workers a more flexible environment may not only free up some of their time to focus on their family, it may also help address another of the problems the participants discussed as impediments to fostering and leveraging the innovative talents of the people in our workforce. Too often, they agreed, the environment of the workplace—the processes and procedures we have in place for functioning as an organization—is itself an impediment to innovation. Organizational structures, often referred to as “stovepipes,” discourage the sharing of knowledge. Age-old rules about when and where and how work must be done prevent us from seeing and creating the connections between different aspects of the business (in addition to making it difficult to be home teaching our children to be innovative thinkers!). Reward and incentive structures prevent us from recognizing as a success the efforts of our people that fail to produce the expected result but do produce new insights and discovery and opportunity. Participants agreed there are too many examples of how, even when we do have creative innovative people in our organizations, we let the traditional ways of running our

businesses tamp down that innovation, to everyone's detriment.

It is by changing some of these common, traditional business practices that leaders may have the greatest opportunity in the near term to unleash and leverage the innovation and talent in their workforce. For example, several participants suggested that collaborative tools and new approaches to knowledge management can provide flexibility and unleash an enormous amount of innovation. Some organizations use archiving systems and mentoring programs to encourage a collaborative spirit, a collective sense of mission, and a continuity of experience. Knowledge management also is critical if organizations are to retain the valuable experience of their senior members, especially as these individuals retire or leave the organization. By harvesting and retaining the knowledge and experience of senior employees, organizations can stop spending time reinventing the wheel and start spending more time inventing something new, and carrying on useful and productive traditions.

There are also creative ways to explore, and transcend, the structural and process boundaries in our organizations that sometimes stifle innovation – and sometimes we can discover them in unexpected ways. For example, one participant described how in Washington over the last several years, planning for how to enable agencies to continue seamlessly functioning during a potential pandemic has led to new ways of structuring how and where the work of these agencies is done. Something as simple as “flex time,” allowing employees to vary the specific hours in which they work so that there is a wider overlap of when people were in the office versus at home, had benefits in the context of planning for continuity of opera-

tions in a pandemic, but it also became clear to agency leaders that the flexibility had added benefits in terms of efficiency and effectiveness in performing the mission. Workers in these agencies not only were prepared for a crisis, they were able to be more innovative and productive with the increased flexibility.

Changing the incentive structure is often difficult, in any organization, and in particularly in public sector agencies where there are limits to how people can be valued financially. Other options—perks, flex time, vacation, even simple deference—might be good ways to work around financial limitations. But often there are simple things we can do. One participant discussed the so-called “hygiene factor,” taking deliberate steps to express to our workers the value we see in who they are and what they do. Increasingly we must experiment with new ways to measure innovation and demonstrate to our people that we value them and their creativity. It is a difficult problem: innovation is not something with easily-defined metrics, and different people are motivated and inspired by different kinds of demonstrations of how and why they are valued. How an organization would measure (and thus account for, and reward) the levels and types of innovation among its people is perhaps left best to each organization; incorporating such a philosophy, however, is vital to ensuring the employees of an organization feel comfortable and empowered to try new things.

Even as we begin to implement these kinds of ideas, participants noted, there is another problem we must address: the fact that too many of the individuals we place in leadership roles in our organizations are not themselves skilled as cultivators and developers of human talent. Even if as leaders of businesses and government or-

ganizations we want to try to develop or bring out these attributes of innovation in our workforce, as one participant noted “we haven’t developed our leaders to develop talent,” and so there is simply not enough leadership pushing these kinds of skills and managing the expectations and attitude of employees. We expect the leaders of our organizations to be able to do this but we have not trained and developed these individuals to train and develop others. Participants agreed we must make development of this skill a priority in our future leaders.

This kind of inspirational and development-focused leadership is critical to the health of every organization. Without it, any of the other changes our participants explored will mean little. Inspired leaders can change incentive plans, introduce flexibility to the workplace, and energize their talented people to come forward and take on leadership roles themselves. These sorts of steps are the most needed as the future unfolds.



Innovating Across the “Non-Money” and “Money” Economies

While the money economy is easy to discuss—whatever has dollar value—the non-money economy is not. How would one place a value on innovation or creativity? Alvin and Heidi Toffler identified, decades ago, a phenomenon they called “prosumption”—the increasing prevalence of individuals producing services and goods for which they themselves are the consumers. Prosumption is at the heart of the non-money economy, seen in everything from the free work done by hobbyists to the development of the open-source Linux computer operating system. How are these unpaid but high-value actions valued in the “traditional” (money) economy? We are seeing, right now, the creation of enormous amounts of wealth that do not get measured or included in economic statistics, yet they form the basis of much else in the money economy. A recent World Bank study estimated that the “intangible economy,” which consists of institutions, culture, innovation, and knowledge, is actually up to 80% of the economies of developed nations, and upwards of 60% of the economies of developing nations.

Participants in the second group discussed how the non-money economy does and will impact the money economy, and what opportunities might arise from this new crossover. They found that the lines that once separated the money economy and the non-money economy are blurring. While the two always coexisted, and even intersected, they agreed, the degree to which they are doing so now is unprecedented. In a major way, this intersection is hiding the real value in the economy.

One area such value obfuscation is apparent is the extreme low end of the workforce. One participant asked: "Have we looked at the importance of the goods and services that illegal immigrants provide?" There is little correlation between the numbers and types of jobs illegal immigrants do and how they are paid for this work—by being paid under the table at often below minimum wage, they are generating incredible value that is not properly reflected in the money economy. Unfortunately, how to correct for this valuation discrepancy is more a question of politics than one of economics.

The challenge boils down to the mismatch between price and value: in many cases, participants noted, knowledge is essentially value without price, since it is mostly transferred through barter. This represents a tremendous headache for those who try to measure value in the economy: one participant noted that the U.S. technically (or at least effectively) considers barter systems illegal, since we consider only monetary transactions legitimate. When huge amounts of value are created and traded but not monitored in traditional methods of economic tracking, there grows an enormous disparity between the stated and actual wealth in an economy.

Adjusting this measure of value is a slow process, and much of society seems far ahead of the laws structuring the exchange of value—particularly with regards to intellectual property (IP). The traditional conception of IP is being challenged by the wave of prosumption unleashed by the Internet, including unauthorized sampling, file sharing, the explosion of recipe-sharing sites, Google Books, blogging, and more. Here more than anywhere is where, as several participants put it, "the lines get blurred." People want to use this IP, whether a free-

download MP3 or a loaned copy of a tax software, but because it is so easy to acquire it for free they consider it *overvalued*, and thus are unwilling to pay to offset the producer's cost. Another participant noted, "a lot of what we see is going beyond just people trading software for free, people in Russia and elsewhere are getting people to pay for it, but pay only a fraction of what its worth," without the original producer benefiting financially. Whether they benefit in other, non-monetary ways is a separate question that "blurs the lines" even further between "the two economies."

Ultimately, "democratized" content generation can have significant implications for society. Using distributed collaboration to generate intellectual property—for example the aforementioned Linux, a free, open operating system that has been cobbled together by hobbyists working in their spare time and now challenges Microsoft's dominance of the server market—can greatly challenge the nature and purpose of research and markets. Interestingly, as one participant suggested, an early "prototype" of the model exists in the military—DARPA, for example, offers relatively paltry sums of money through programs like the Small Business Innovation Research (SBIR) Program for things like UAV research and development, yet sees tremendous returns by subsequent "distributed collaboration" among DoD and other users of the fruits of the research. Might other emerging forms of such "collective intelligence"—for example, massively distributed, unpaid remote collaboration over an electronic medium like a wiki—be more effective at generating the same (or even a better) outcome than discrete, and paid, research? Learning how to take advantage of the value generated by the non-money economy, and then turning that into

real profit in the money economy, may be one of the keys to wealth generation in the future.

The proper balance between knowledge ownership and knowledge sharing has yet to be struck, but history shows that capital is resourceful. For example, in 1992, software in the United States was not protected under copyright, but software companies relied on End User Licensing Agreements (EULAs) to protect themselves from unauthorized copying or reselling. While copyright code was amended in the U.S., its application and enforcement poses major problems here and abroad. One participant noted a parallel history: in previous centuries, some countries would “steal” knowledge and information from wealthier and more successful countries—such as the U.S. leveraging industrial production technology from Great Britain in the years following the American Revolution—and innovate that knowledge on its own, in the process creating whole new markets, and new economies. Participants noted serious and growing concerns about engineering firms in China and India doing exactly that with computer and biotechnology: setting themselves up as cheap alternatives for offices for cost-conscious U.S. and European firms, then claiming national ownership over whatever IP gets produced there.

Participants agreed that opportunity lies in recrafting our regulatory and other social-economic “knowledge management” mechanisms to reflect the increasing blur of the money and non-money economies. Many countries are already beginning to do just that, modifying their regulatory and institutional structures to encourage a free-wheeling, trial-and-error approach to research and innovation. At the same time, the U.S. has lagged behind these sorts of changes—thereby, in the view of some, en-

couraging a flight abroad of the creative class, which includes those most inclined toward prosumption the creation of non-money value these activities represent. The reverse effect is also increasingly observed, as several of our guests noted: more and more science and engineering students are not immigrating to the U.S., not only because of immigration laws but also due to social and other factors that inhibit their incentive by inhibiting what they could do with the knowledge they would gain from studying here.

Participants hit upon another potential way in which the non-money economy is likely to blossom in the future, creating enormous value that can in turn stimulate innovation and value in the money economy: namely, the burgeoning wave of retiring Baby Boomers. Enormous advances in biotechnology and healthcare have enabled people to live decades beyond what was normal forty years ago. As a result, it is reasonable to expect decades, and not even just a few years, of productive life after retirement, and we can expect (and are already seeing) these individuals spending these retirement years doing the things they want to do but never had the time for. Such hobbyist activity is the very essence of prosumption: these individuals are and will be creating value simply because they want to – but they will not be producing wealth as *we know it today* until we bridge the gap between “the two economies.” Several participants speculated that great opportunity awaits those who figure out how to capture the value that the Baby Boomer generation will be producing as it moves into its long retirement age.

“Desynchronization” of Innovation in the Public and Private Sectors

The premise of the third group at the 2007 Future Shock Forum was simple: there is a fundamental difference between the rate of change in public institutions and the rate of change in other institutions in the society at large. The evidence is ample, and the implications of the difference are meaningful. For example, the law does not keep pace with changes in technology and social interactions, and law enforcement struggles to adapt to the changing strategies of criminal networks taking advantage of these rapid advances in technology. Schools remain mired in the industrial-era model of rote learning, decades after it ceased to be a useful model for raising children. At all levels, the public sector is falling out of sync with society, and the result is that inadequate policy tools are being used to address social, economic, political, and other problems.

The participants in this group were able to identify some major areas in which the different (slower) rate of change in the public sector limits innovation, which in turn drives the government toward a growing “desynchronization” from the rest of society:

- Civil service laws and regulations constrain the ways in which we can reward innovation in government (and, conversely, the ways in which we can penalize those who fail or refuse to innovate)
- The structure of public sector programs (annual budgets, hierarchical approval processes, etc) bias the conception and execution of these programs toward immediate value rather than toward long term results
- The structure of public sector programs discourages cross-pollination between organizations that can im-

prove performance and stimulate new ideas and approaches

Rewarding Innovation: What one cannot measure, one cannot reward. From the leadership to the very structures in place for determining value, there are no incentives for innovation. There are standard, often rigid, processes for getting jobs done, and workers are not rewarded for conceiving and applying new ways to get these jobs done in more efficiently or effectively, outside the processes. Bonuses (not just monetary, but even rewards "in kind" such as time off, or even symbolic trophies) are few and limited by law and by rules of fairness that are well-intentioned but become lowest common denominators. What's worse, often the converse of rewarding innovation is true—actual innovation is sometimes punished. If an employee is too creative, too far outside the mainstream, rather than being recognized as in the most successful private companies, he or she is held back as "not a team player" and is forced to fight bureaucratic battles every step of the way. Harkening to the first group, participants noted that changes in business processes in government organizations that simply allow for greater flexibility in when, where, and how our workers do their jobs would be a powerful stimulus for innovation, and indeed in many ways would be their own reward. Creativity and the drive to innovate is a "learned behavior," one participant said, but too often public sector organizations prevent this learning by refusing to reward those who innovate. This disincentive to learn, others observed, traces all the way back to the educational system (itself an overwhelmingly public sector institution) which does not train or reward students to be creative or innovative, even in science and engineering where discovery is the sine qua non. The processes and reward

structures in public sector institutions must change if we are ever to realize a long-term increase in innovation and consequent decrease in the “desynchronization” between government and the rest of society.

Structuring Programs to Envision and Deliver Long-Term Results: Outside of a grand strategy—“*we need this to be possible*”—innovation will be rare, and too often such strategy is lacking in public sector institutions and programs. One participant noted the problem that, while programs get funding, strategies do not – echoing the discussion above, the processes of government do not lend themselves to recognizing strategy in this way. How can innovation thrive when our public sector workers are limited to working within limited, and generally short-term, programs? Structuring around near-term milestones was the sort of arrangement that was highly successful in the post-WWII industrial framework, but in an information economy this absence of vision and strategy is stifling. In the 1960s, much of the scientific community was laboring under an inspiring national goal—to land a man on the moon by the end of the decade—and a concrete strategy for reaching that goal. Government established a broad, overarching framework in which scientists and engineers could be creative, and channeled the creative efforts of many within that strategic framework. Without a similar end-state vision, it is unlikely the focus necessary for true innovation will enter the government in any significant way—and it is possible, participants agreed, to envision strategic endstates for much more “mundane” programs and activities in government than the space race, and thereby to provide our government workforce with the framework within which they can be innovative in whatever it is they do. The military operates with a greater focus on strategy than many other

government agencies, and perhaps offers a model to emulate; perhaps this is why it is among the most innovative. For example, when innovative DARPA technology programs are handed over to the Military Services for execution, the drive to innovate generally does not disappear, but rather resurfaces in a different form when the planners in the Services are driven by operational requirements to develop an innovative new concept for employing the technology. Examples of innovation abound on the ground today in Iraq and Afghanistan, because the military (in the large) is focused on a strategy for defeating global terrorism. Innovation could be expanded by leaders at non-DOD agencies if they chose to rally their organizations behind urgent and important goals rather than managing daily operations toward near-term discrete goals.

Cross-Pollination: The participants agreed that there is a fundamental lack of leadership pushing for the organizational changes that would transcend bureaucratic boundaries and thereby foster innovation. Participants agreed that now more than ever, agencies and departments need to work together, not separately, to address the challenges before us. Not a single presidential candidate is discussing the need to get the different elements of government working more collaboratively, or even recognizing the "stovepipe" problem in the first place. In Congress, there is little support for changing the system, given the difficulties of legislating all the funding process and other changes that would be required. One participant cited an example: it was difficult to get different agencies to fruitfully collaborate on an anti-drug campaign. When they worked together, things went well, but when Congress reviewed funding to simplify the management and oversight process, they simply gave all the money to the

DEA—effectively scuttling the successful collaboration that had been in place. Combined with the natural inflexibility one finds in all bureaucracies, change is extraordinarily difficult to bring about, no matter how quickly the world outside moves. At multiple levels, leadership is failing government to cross boundaries and “cross-pollinate.” Harkening again to a discussion in the first group, participants that senior government officials are more often managers than leaders and inspirers. “We have to drive change in structure,” one participant noted, but we need visionary leaders to stimulate that broader system-level change by their actions in their own individual organizations. Once they do, participants agreed, the demonstrated results will be too difficult to ignore.

So what to do? Participants suggested several ways to address the problem of an increasing desynchronization between the pace of innovation in government and in the rest of society. First, though most difficult, is to create simple incentives and rewards for innovation. The government needs new ways to recognize the truly creative, innovative people and encourage them. Robust knowledge management systems would help identify the innovators, and could be their own reward by making the jobs of these individuals easier, less time-consuming, and more fulfilling. Other simple forms of reward and incentive should be explored, and we can mine the private sector for ideas on how to do so that do not necessarily involve financial compensation – for example, encouraging acceptance of risk by recognizing those who try new approaches and fail but still produce useful data or unexpected positive outcomes.

Echoing a theme explored by the second group, another idea is incorporating “massively distributed collabora-

tion”—making government open-source, as it were. Enabling unrelated people in unrelated agencies to communicate, even to collaborate (again perhaps with simple knowledge management systems) would be a major leap toward making the government innovate like the private sector. Similarly, increasing bureaucratic flexibility—reducing paperwork, reducing processing time—would go a long way toward making the public sector “catch up” in the “desynchronization” race.

A third idea is to welcome the coming wave of retirement among the Baby Boomers. Many government workers have devoted a lifetime to public service and must be recognized for this character and the attendant sacrifices; and many have experience and expertise that we would be foolish to let go of easily (the discussion in the first group of mentoring programs to infuse younger generations of government workers with this expertise would be a valuable pursuit). At the same time, the departure of this generation from government makes room for “new blood”—innovative blood—in public sector institutions, and participants suggested we should strategically plan for how we will make this transition in a manner that targets specific new kinds of talents and skills our agencies need.

The Interconnectedness of Our Innovation Themes

Recognizing a problem is the first step toward solving it, and for too long there was an entrenched unwillingness to see the problems of how we impede and resist innovation in our institutions and organizations – public sector *and* private sector. The 2007 Future Shock Forum brought together senior executives from many prominent institutions in both sectors and enabled all in attendance to rec-

ognize these problems, and most importantly their interconnections, in new ways, as well as to share ideas about how to solve them in mutually supportive ways.

Several common useful short term and long term goals emerged. In the short term:

- **We need new incentive structures.** People have to be encouraged to innovate; if the structure of an organization prevents financial rewards, there are other ways—from flextime to accolades to simply treating them with greater respect. Without good people, an organization will stagnate, and good people will not stay if they are not rewarded for being innovative. One participant said, with a bit of wonder in his voice, that 75% of his time is spent on “people problems,” and rewards and incentives for innovation and flexibility would eliminate many of these “people problems.”
- **We need more tools to encourage innovation.** These tools, such as distributed collaboration technologies, already exist; they just need authorization for use and implementation. The problem of innovation is, of course, not limited to the public sector. Private companies, the most creative and cutting edge firms, still wrestle with how properly to inculcate a culture of innovation and risk-taking, and the tools are often much more available to them than they are to our government agencies. As we develop methods for measuring innovation, the tools needed to increase it will become evident and the “business case” for adopting them will become clearer.
- **We need a higher tolerance for risk.** Innovation is never risk-free. So long as there is an almost pathological fear of failure, innovation in the public sector will be stilted and rare – and too many private sector

enterprises mirror the government in this regard. Fostering tolerance for risk requires leadership willing to accept and explain the *benefits* of failure. At the top level (in government), it is probably unrealistic to expect this of political appointees. However, outside pressure can be useful—Congressional pressure during confirmation hearings, for example, can spur potential appointees to deliberately and publicly adopt a long-term outlook toward the organizations they are being screened; and by adopting long-term, visionary-type strategies, these leaders will create the framework and the “breathing room” for individual creativity and group innovation.

- **We need a greater understanding of the world around us.** Most public institutions were designed in a different age, when the world was almost fundamentally different than it is today. Innovation comes from new ideas “infiltrating” our organizations from outside, and even if the underlying organizational structure of these institutions cannot be modified, we can create the apertures in those structures that allow in a pragmatic understanding of how the world operates and the many good ideas we can collect from across both the public and private sector and apply in what we do.

In the long term:

- **Innovation starts in the home.** Parental involvement, which requires time, is one of the best ways to encourage creativity and innovation. Giving parents time to actually raise their children to be innovators is a responsibility our business and other organizations must accept. The coming Boomer retirement wave represents a tremendous opportunity to introduce these new forms of flexibility and new, more stream-

lined structures for getting things done—the influx of fresh blood that hasn't been locked into an inflexible bureaucratic framework has a very real chance of reversing some of the negative trends our participants identified in how we run our public and private sector enterprises. The upcoming generations of people, however, are dependent on their parents for creating the appropriate environment that will turn them into creative, innovative, dynamic people. That means we must lay the groundwork of new flexible work processes now for the members of our workforce to be more able to embrace this awesome responsibility.

- **Leadership is essential.** The overwhelming majority of the participants identified poor leadership as one of the primary reasons innovation in the public sector has faltered. In organizations as constraining as many public institutions are, finding new ways of encouraging and empowering employee innovation requires strong leadership, which is a quality all three groups found lacking in too many of the organizations they discussed. At a fundamental level, organizational priorities flow from the top down—if the executive leadership is interested in something, it will be lavished with attention, leeway, and funding. But too often, top-level leaders do not have a vested interest in changing the system they created and perpetuate. True leaders assigning priority to discovering new efficiencies and insights in their businesses, while creating both the organizational and financial room to fail spectacularly, may be the best leverage for accomplishing an increase in innovation.
- **Encouraging innovation is a long term project.** Taking a short view of the problem, whether it is the annual funding or the election cycle, will not generate

an appropriate set of goals; this is a long term problem, with a long term solution.

Innovation is never easy, and the mechanisms and processes for creating and inspiring it are likely to generate backlash or resistance when we try to implement them. But the participants in the 2007 Future Shock Forum agreed: the power of innovation to create new forms of societal value and wealth is too great to let this resistance win the day. To create the future we desire, nothing less than our best effort to inspire innovation will do.



Brief Synopsis of *Revolutionary Wealth*

By Alvin Toffler & Heidi Toffler

Starting with the publication of their seminal best-seller, *Future Shock*, Alvin and Heidi Toffler have given millions of readers new ways to think about a world that's constantly changing, with seemingly random impacts on our businesses, governments, families and daily lives. Now, writing with the same rare grasp and clarity that made their earlier books classics, the Tofflers turn their attention to the revolution in wealth now sweeping the planet. And once again, they provide a startling, penetrating, coherent way to make sense of the seemingly senseless.

Revolutionary Wealth is about how tomorrow's wealth will be created, who will get it and how. But 21st Century wealth, according to the Tofflers, is not just about money, and cannot be understood in terms of industrial-age economics. Thus they write here about everything from education and childrearing to Hollywood and China, from everyday truth and lies to what they call our "Third Job"—the unnoticed work we do without pay for some of the biggest corporations in our country.

They show the hidden connections between extreme sports, chocolate chip cookies, Linux software and the "surplus complexity" in our lives as society wobbles back and forth between depressing decadence and a hopeful post-decadence.

In their earlier work, the Tofflers coined the word "prosumer" for people who consume what they, themselves, produce. In *Revolutionary Wealth* they expand the concept to reveal how many of our activities—whether parenting or volunteering, blogging, painting our house, im-

proving our diet, organizing a neighborhood council or even “mashing” music—pump “free lunch” from the “hidden” non-money economy into the money economy that economists track.

Prosuming, they forecast, is about to explode and compel radical changes in the way we measure, make and manipulate wealth.

Blazing with fresh ideas, *Revolutionary Wealth* provides readers with powerful new tools for thinking about—and preparing for—their future. For insightful leaders in industries from publishing to healthcare to manufacturing, the book unveils three major fundamentals and significant insights into the future of wealth creation.

Alvin and Heidi Toffler’s other books include *The Third Wave*, *Powershift*, *The Culture Consumers*, *War and Anti-War* and *Creating a New Civilization*. The authors are co-founders of Toffler Associates, advisers to companies and governments world-wide on advances in economics, technology and social change. Their monthly column appears in major newspapers around the world. According to *Time* magazine, the Tofflers “set the standard by which all subsequent would-be futurists have been measured”.

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Alvin and Heidi Toffler are known around the world for their work that has influenced presidents and prime ministers, top leaders in fields ranging from business to on-profit organizations, as well as educators, psychologists and social scientists.

Each of their books -- which include such classics as *Future Shock*, *The Third Wave*, *Powershift* and *War and Anti-War* -- has been hailed for originality, clarity and unusual insight into the challenges and opportunities racing toward us.

Their newest book, *Revolutionary Wealth*, attacks key features of conventional economics as it paints the emerging global "wealth system" of the decades ahead. It identifies the "deep fundamentals" that lie behind the everyday "fundamentals" of business and economics. It also explains the role of "prosumers" -- whose unpaid work as parents, volunteers, hobbyists and open-source software programmers pumps "free lunch" into the money economy. And it probes the future of Asia, Europe, Latin America and the U.S. as America struggles to maintain its tenuous lead as the world's sole superpower and most advanced economy.

THE LARGER CANVAS

Known for having forecast the acceleration of daily life, the decline of the nuclear family, the spread of loneliness and rise of religion, the Tofflers decades ago also anticipated cloning, virtual reality, niche markets, information overload, work-at-home, product customization, the "de-massification" of the mass media, the threat of terrorism and many other features of contemporary life.

In the area of management and business, the Tofflers forecast the shift from mass manufacturing to services and knowledge work, the digital revolution, the increasing importance of communication, the success of cable television, nano - and bio-technology, customized production, outsourcing, franchising, temporary organizational forms, networks and the waves of corporate restructuring -- all literally decades before they became everyday news and any one had heard of Bill Gates or Silicon Valley.

But in the Tofflers' works, these disparate forecasts are all mere details of a far larger canvas. Some of them have missed the mark. We are still waiting for the "paperless office." But few today challenge the central, sweeping thesis of their work since the mid-1960s -- that a knowledge-based new economy was arising to replace the industrial age. This concept is now accepted currency among governments, economists and thinkers around the world.

What differentiates the Tofflers from others who today echo this view is their insistence that there can be no economic transformation without a corresponding upheaval in our social, political and cultural institutions and values. Their work, therefore, synthesizes ideas and

crosses borders, drawing attention from key change-makers.

Ted Turner has frequently and fulsomely credited the Toffler works with inspiring him to start CNN in 1980. According to Steve Case, the Third Wave struck like "a lightning bolt," led to his obsession with cyberspace and, ultimately, to his co-founding AOL. J.D. Power cites the Tofflers as his "mentors". Today Alvin Toffler is routinely ranked among the world's top advisors to management.

On the world scale, the Tofflers forecast such major events as the crack-up of the Soviet Union, the reunification of Germany, and the rising power of the Asia Pacific region long before each of these made global headlines.

An entire gallery of world leaders -- representing widely divergent political views -- are also Toffler readers. They run the ideological gamut from leading conservatives to Hugo Chavez, the firebrand pro-Castro president of Venezuela, and Kim Dae Jung, former president of South Korea (both of whom read Toffler books while they were political prisoners) to Mexico's Vicente Fox and Malaysia's former leader, Mahathir Mohammad.

The Third Wave became the second best-selling book in China after the speeches of Deng Xiaoping, as Deng and prime minister Zhao Ziyang deliberately used it to help launch the reform program that has since led to China's amazing rise.

The Tofflers' ideas also spread well beyond China. The architect of the new Singapore, former Prime Minister Lee Kwan Yew, told South Korean daily Joong Ang Ilbo that *Powershift* was a key influence on his thinking. In India,

former Prime Minister L.K. Advani was an early reader of the Tofflers. In South Korea Kim Dae Jung asked the Tofflers to serve as personal advisors.

According to Alexander Woodside, a leading historian of Asia: "Where an earlier generation of Chinese, Korean, and Vietnamese revolutionaries wanted to reenact the Paris Commune as imagined by Karl Marx, their post-revolutionary successors now want to reenact Silicon Valley as imagined by Alvin Toffler."

In Washington, too, the Tofflers' ideas have long resonated in politics. In 1995, on assuming the office of Speaker in the House of Representatives, Republican Newt Gingrich announced that his chief objective was to help America "make the transition into the Third Wave information Age that Alvin and Heidi Toffler describe." Meanwhile, New Yorker magazine noted that the White House of Bill Clinton and Al Gore also "dances to the rhythms of Toffler", and that "the strains of Tofflerian music" echoed throughout that administration's efforts to reform government.

Concepts drawn from the Toffler books have entered current discourse with implications for a wide range of social issues, from ethnic and race relations to marriage, work, stress, childrearing, education, self-help and organization theory. Toffler terms like "future shock" and "adhocracy" are now embedded in dictionaries, their phrases found in Bartlett's Familiar Quotations.

Summing up their work, Time magazine, has described the Tofflers as having "set the standard by which all subsequent would-be futurists have been measured."

THE PARTNERSHIP

The Tofflers met at New York University, soon moving to the Midwest and spending the next five years as blue-collar workers on assembly lines while studying industrial mass production up close. Heidi became a union shop steward in her aluminum foundry. Alvin became a millwright and welder.

Their shop-floor experience led Alvin to a stint on a union-backed newspaper, a transfer to its Washington bureau, then three years as a correspondent covering Congress and the White House for a Pennsylvania daily, while Heidi worked at a specialized library devoted to business and behavioral science. They returned to New York when Fortune invited Alvin to become its labor columnist, soon switching him to writing about business and management.

In the mid-60s the Tofflers began work on what would become Future Shock and would lead to their subsequent career as authors and lecturers.

In 1996, with Tom Johnson, one of America's top business consultants, they co-founded Toffler Associates®, an advisory firm designed to implement many of the ideas about which the Tofflers have written. The firm has worked with businesses, NGOs and governments in the U.S., South Korea, Mexico, Brazil, Singapore, Australia and other countries.

The Tofflers also write a monthly column that appears in many of the world's most important newspapers.

AFFILIATIONS AND HONORS

Alvin Toffler has served as a Visiting Professor at Cornell University, a faculty member of the New School for Social Research, a Visiting Scholar at the Russell Sage Foundation and has won the McKinsey Foundation Book Award for Contributions to Management Literature. He holds multiple honorary doctorates. He serves on the Advisory Council of the U.S. Comptroller-General, has been elected a Fellow of the American Association for the Advancement of Science, and is a member of the International Institute for Strategic Studies. In France, where the Tofflers' work has won the prestigious Prix du Meilleur Livre Etranger, he has been named an Officier de L'Ordre des Arts et Lettres.

Heidi Toffler is currently an Adjunct Professor at the Institute for National Strategic Studies at the National Defense University in Washington and a member of the Advisory Council of the Center for Global Communications in Tokyo. She holds multiple honorary doctorates in law and letters and has been awarded the medal of the President of the Italian Republic for her contributions to social thought. She serves on the Advisory Board of the U.S. Committee for the United Nations Development Fund for Women (UNIFEM).

**FUTURE SHOCK FORUM 2007
PARTICIPANTS**

COLONEL JOHN AGOGLIA

Director, U.S. Army Peacekeeping and Stability
Operations Institute

Colonel John Agoglia is currently the Director of the U.S. Army's Peacekeeping and Stability Operations Institute (PKSOI) in Carlisle, PA. He joined the Institute in the summer of 2004 after having served three eventful years at U.S. Central Command. He arrived at CENTCOM from an assignment in Japan four weeks before 9/11. He was involved in developing the U.S. Central Command plans for Afghanistan and the Global War on Terrorism. He was part of the initial planning group that initiated the campaign plan for Iraq. He accompanied Ambassador Bremer into Baghdad in May 2003 as his CENTCOM liaison officer and worked the integration of the planning efforts between the CPA and the military; the hand off of the police training from the CPA to the military; and the initial engagement strategy for senior military commanders with the newly appointed interim Iraqi Government leaders.

He is a 1980 graduate of the United States Military Academy at West Point and holds a Masters in Military Arts and Studies from the School of Advanced Military Studies (SAMS).

THE U.S. ARMY PEACEKEEPING AND STABILITY OPERATIONS INSTITUTE

The U.S. Army Peacekeeping and Stability Operations Institute (PKSOI) was established in 2003 as an integral component of the Center for Strategic Leadership at the U.S. Army War College in Carlisle, PA. The Institute's charter and structure are designed to meet the future needs of the U.S. Army and the U.S. military across a broad range of peacekeeping and stability operations.

MR. KENT BUCHANAN

Vice President-Corporate Technology
and Development and Chief Growth Officer
Harris Corporation

R. Kent Buchanan is the Vice President–Corporate Technology and Development and Chief Growth Officer for Harris Corporation. He is responsible for technology planning, cross-division technology collaboration, technology licensing, and commercialization of government-funded technology development. He also oversees new business development initiatives in both domestic and international markets and corporate development activities.

Prior to joining Harris in 2005, he was the senior director of Growth Platforms at Motorola. During 15 years with Motorola, he held a number of leadership positions including vice president and general manager– Global eBusiness, vice president and general manager–Radio Products Division.

He began his career as an officer in the United States Air Force, where he had assignments as chief of production on a communications satellite program at the Space and Missile Command, and in systems test engineering at the Electronic Systems Command. He is a graduate of the United States Air Force Academy with a B.S. degree in electrical engineering and he received an M.B.A. degree from the Harvard Business School.

HARRIS CORPORATION

The "Harris Automatic Press Company" was founded in Niles, Ohio in 1895. They spent the next 60 years developing lithographic processes and printing presses before acquiring Intertype Corp. and Gates Radio in 1957, expanding their reach into broadcasting and typesetting. In 1959, they acquired PRD Electronics of Brooklyn, New York, gaining microwave technology. In 1967, they merged with Radiation, Inc. of Melbourne, Florida, a developer of antenna, integrated circuit, and modem technology used in the space race: the semiconductor business that later became Intersil in 1999 was born of this development, and the company headquarters was moved from Cleveland to Melbourne in 1978. In 1969, Harris Corporation acquired RF Communications and Farinon, furthering its microwave assets. The printing operations were sold off in 1983 and are now known as GSS Printing Equipment. GSS Printing Equipment later acquired Lanier Worldwide, which itself was spun-off from Harris Corporation in the late 1990s.

In the late 1980s, Harris bought the semiconductor division of RCA after GE's acquisition of RCA, later selling the same to Texas Instruments in the later 1990s or very early 2000s.

Harris is a large, multinational corporation headquartered in Melbourne, Florida, with nearly 14,000 employees. Through numerous acquisitions, the size of Harris has grown significantly within the past decade. Harris has offices in 21 countries and 147 locations worldwide.

DR. RITA BUSH

Program Leader, Intelligence Advanced
Research Projects Activity
Office of the Director of National Intelligence (ODNI)

Dr. Rita M Bush is a Program Leader in the Intelligence Advanced Research Projects Activity (IARPA), in the Office of the Director of National Intelligence (ODNI). She previously served as Division Chief of the Information Exploitation (InfoX) Research Division in the Disruptive Technology Office (DTO), where she oversaw an extensive research program in a variety of topics of interest to the Intelligence Community, including natural language understanding, video exploitation, collaborative work environments, social network analysis, modeling and simulation, and information visualization. Her research interests include novel human-computer interaction technologies, virtual worlds, and program evaluation methods. Prior to becoming a federal government employee, Dr. Bush was employed as a Program Manager at AT&T and at Telcordia Technologies. She began her career as a researcher in Human Factors at Bell Labs. She holds a Ph.D. in Experimental Psychology.

OFFICE OF THE DIRECTOR OF NATIONAL INTELLIGENCE

The Director of National Intelligence (DNI) serves as the head of the Intelligence Community (IC). The DNI also acts as the principal advisor to the President; the National Security Council, and the Homeland Security Council for intelligence matters related to the national security; and oversees and directs the implementation of the National Intelligence Program. The President appoints the DNI with the advice and consent of the Senate. The Director is assisted by a Senate-confirmed Principal Deputy Director of National Intelligence (PDDNI), appointed by the President with the advice and consent of the Senate.

MR. TONY CICCIO

Senior Principal and Director for
Enterprisewide Solutions for SRA
SRA International Incorporation

Tony Cicco is a Senior Principal and the Director for Enterprisewide Solutions for SRA, International with over 35 years experience in business systems design, development and operation. In this position, he provides management and technical services to a wide range of federal departments and agencies. Before joining SRA, he was the chief information officer and the deputy chief administrative officer for the U.S. Government Accountability Office (GAO) where he worked closely with GAO's business managers and executives to implement information management strategies and solutions that balanced business drivers and technical requirements within cost constraints. He was also for all GAO's enterprise-wide business process management and redesign, and emergency preparedness.

He received a bachelor's degree in business from the University of Nebraska-Omaha, an MBA from California State University - Long Beach, and completed the Wharton Information Systems Program at the University of Pennsylvania. Tony is the recipient of several GAO awards including the Comptroller General Award.

SRA INTERNATIONAL INCORPORATION

SRA is a leading provider of technology and strategic consulting services and solutions - including systems design, development and integration; and outsourcing and managed services - to clients in national security, civil government, and health care and public health.

The Company's business solutions include business intelligence (text and data mining), contingency and disaster response planning, information assurance, environmental strategies, enterprise architecture, infrastructure management, and wireless integration.

MR. LYNN CLAUDY

Senior Vice President
National Association of Broadcasters

Mr. Lynn Claudy is Senior Vice President of Science and Technology for the National Association of Broadcasters. As head of the Science and Technology department, he is responsible for representation of the NAB in all radio and television technical matters. He joined NAB in 1988 as a staff engineer and held positions of Director of Advanced Engineering and Technology and Vice President before assuming his present position in February 1995.

Prior to joining NAB, he was employed by Hoppmann Corporation, a communications systems integration firm where he held a variety of technical and management positions. He also was a part-time professor in the Physics Department at the American University in Washington, DC, where he taught courses in acoustics and audio technology. Previous to that, he was a development engineer at Shure Brothers Inc., a manufacturer of audio equipment.

He has a Bachelor of Arts degree from Oberlin College, a B.S.E.E. from Washington University in St. Louis and an M.S.E.E. degree from the Illinois Institute of Technology. He is a member of IEEE, SMPTE, SBE, and AES.

NATIONAL ASSOCIATION OF BROADCASTERS

The National Association of Broadcasters is a full-service trade association that promotes and protects the interests of radio and television broadcasters in Washington and around the world. NAB is the broadcaster's voice before Congress, federal agencies and the Courts. It also serves a growing number of associate and international broadcaster members.

NAB works to keep its members out front on policy issues, technology and management trends. Its staff provides ongoing and "late breaking" broadcast news, industry research, and legal expertise. It gives member stations the tools to compete, including a growing range of products and financial services. In addition, throughout this Web site, you will find content exclusively for our members.

NAB's legislative success is the direct result of political involvement by local broadcasters, who help educate policymakers about the realities of radio and television. Its involvement is invaluable on the Radio and Television Boards, NAB working committees, in direct lobbying and through support of NABPAC, NAB's political action committee.

MR. DOUGLAS COMSTOCK

Director, Innovative Partnerships Program (IPP)
National Aeronautics and Space Administration (NASA)

Mr. Comstock is responsible for directing the IPP portfolio of technology investments and partnering mechanisms including Small Business Innovative Research (SBIR), Small Business Technology Transfer Research (STTR), NASA's prize program of Centennial Challenges, and the Innovative Partnerships Seed Fund. He is also responsible for intellectual property management and technology transfer that will provide broad societal benefits from the nation's investment in NASA's space and aeronautics missions, and for encouraging and facilitating partnerships with the emerging commercial space sector including the agency's purchase of emerging commercial services.

Mr. Comstock previously served as the NASA Comptroller, responsible for the preparation, tracking, presentation, and defense of NASA's budget to the White House Office of Management and Budget (OMB) and the Congress. As the founding Director of NASA's Strategic Investments Division, he was responsible for integrating NASA's strategic planning and program analysis supporting budget decisions into a single organization. He has a Bachelor of Science in Mechanical Engineering, and a Bachelor of Arts in Architecture, University of Washington; MS, Aeronautics and Astronautics, MS, Technology and Policy, MIT.

NASA INNOVATIVE PARTNERSHIPS PROGRAM

The Innovative Partnerships Program provides leveraged technology for NASA's mission directorates, programs, and projects through investments and technology partnerships with industry, academia, government agencies, and national laboratories.

MR. ROBERT CRESANTI

Managing Director
Ocean Tomo, LLC

Robert C. Cresanti is a Managing Director of Ocean Tomo, LLC and Chief Executive of Ocean Tomo's affiliate Intellectual Property Exchange Chicago, LLC. He has over a decade of experience in banking, securities, and privacy law.

Immediately prior to joining Ocean Tomo, he served as As Under Secretary of Commerce for Technology and Chief of the Technology Administration, working closely with the Under Secretary for Intellectual Property and Director of the USPTO advising them on the impact of changes to patent policy on competitiveness and innovation. Secretary Cresanti was the highest deciding official in the US Government for patent disputes between agencies and inventors that were employed by the Government, and co-chaired the Committee on Technology and the Interagency Working Group on Manufacturing R&D within the President's National Science and Technology Council.

Before his confirmation, Mr. Cresanti worked in senior executive and legal positions with the two premier technology trade associations in Washington; as Staff Director for the Senate Special Committee on the Y2K Problem; and Staff Director for the Subcommittee on Financial Services and Technology for the Senate Banking Committee. Mr. Cresanti received his B.A. degree from Austin College and his J.D. degree from Baylor University.

OCEAN TOMO, LLC

Established in 2003, Ocean Tomo, LLC is the leading Intellectual Capital Merchant Banc® firm that specializes in understanding and leveraging Intellectual Property assets.

The company provides advice in IP-related mergers and acquisitions, investments, valuations, expert services, analytics and IP auctions. Headquartered in Chicago, Ocean Tomo has offices in San Francisco, Palm Beach, Orange County and Washington, DC.

Subsidiaries of Ocean Tomo include: Ocean Tomo Auctions, LLC; Ocean Tomo Asset Management, LLC; and Ocean Tomo Capital, LLC -- publisher of the Ocean Tomo 300® Patent Index (Amex: OTPAT), the Ocean Tomo 300® Patent Growth Index (Amex: OTPATG) and the Ocean Tomo 300® Patent Value Index (Amex: OTPATV).

"At Ocean Tomo, our focus is on Intellectual Capital Equity® management broadly defined. We target value creation and measurement at the intersection of intellectual property and private equity finance."

MS. JO DECKER

Assistant Deputy Chief of Naval Operations
Integration of Capabilities and Resources
Department of the Navy, Department of Defense

Ms. Jo Decker is Assistant Deputy Chief of Naval Operations for Integration of Capabilities and Resources, Department of Defense, Department of the Navy.

In March 2001, she was selected as the Assistant Chief of Naval Personnel for MPN Financial Management. Ms. Decker became a member of the Senior Executive Service in 1999 as the Deputy Comptroller for the Naval Air Systems Command, located at Patuxent River, Md. In this capacity she was responsible for managing all financial and fiduciary functions for the organization, representing approximately \$17 billion dollars annually, and 30,000 personnel.

In addition to numerous outstanding performance ratings and cash awards throughout her career, Ms. Decker has been awarded the Outstanding Support Employee of the Year Award in 1985 by the Navy Operational Intelligence Center, the Naval Intelligence Distinguished Civilian Award in 1991, and the Navy Superior Civilian Service Award (2 awards). She graduated from Troy State University with a Bachelor of Science Degree in Business Administration. She has done graduate work at the University of West Florida, and University of Southern California.

DEPARTMENT OF DEFENSE

The United States Department of Defense (DOD or DoD) is the federal department charged with coordinating and supervising all agencies and functions of the government relating directly to national security and the military. The organization and functions of the DOD are set forth in Title 10 of the United States Code.

The DOD is the major tenant of The Pentagon, and has three major components—the Department of the Army, the Department of the Navy, and the Department of the Air Force. Among the many DOD agencies are the Missile Defense Agency, the Defense Advanced Research Projects Agency (DARPA), the Pentagon Force Protection Agency (PFPA), the Defense Intelligence Agency (DIA), the National Geospatial-Intelligence Agency (NGA), and the National Security Agency (NSA). The department also operates several joint service schools, including the National War College.

DoD was created in 1947 as a national military establishment with a single secretary as its head to preside over the former War Department (founded in 1789) and Navy Department (founded in 1798; formerly the Board of Admiralty, founded in 1780). The Department of the Air Force was also created as a new service at the same time (it had been part of the War Department as the United States Army Air Force), and made part of DoD. DoD was created in order to reduce interservice rivalry that was believed to have reduced military effectiveness during World War II.

MR. RAY DECKER

Deputy Associate Director
Center for National Security, HCLMSA
Office of Personnel Management

Mr. Ray Decker currently serves as the Deputy Associate Director for the Center for National Security within the Office of Personnel Management (OPM).

He joined the U.S. Government Accountability Office (GAO) as a Director with the Defense Capabilities and Management Team. He was responsible for GAO's classified and unclassified assessments of US efforts to combat terrorism to include weapons of mass destruction; DoD's role in homeland security; DoD chemical and biological defense issues; overseas and domestic force protection; space and information operations; chemical weapons stockpile demilitarization program; and other national security/intelligence areas.

He served in the United States Marine Corps as a pilot, advanced flight instructor, and intelligence officer during his active duty service. He retired in 2000 from the Marine Corps Reserve after 28 years of combined duty in operational and staff assignments stateside and abroad. In 2005, Mr. Decker was recalled to active duty and served as an Operations Officer with the 2d Marine Division in Ramadi/Fallujah, Iraq. He resumed his OPM duties in June 2006.

**THE OFFICE OF PERSONNEL MANAGEMENT,
CENTER FOR NATIONAL SECURITY**

The Office of Personnel Management (OPM) oversees the human capital initiatives of the Departments of Defense (DoD), State, and Veterans Affairs, US Agency for International Development, and the Intelligence Community in support of the President's Management Agenda. Additionally, he leads OPM's interactions with federal agencies to improve the emergency preparedness of the federal workforce in a post 9/11 environment.

LIEUTENANT GENERAL DAVID DEPTULA

Deputy Chief of Staff (Intelligence, Surveillance and Reconnaissance)

United States Air Force, HQUSAF/A2

Lieutenant General David A. Deptula is Deputy Chief of Staff for Intelligence, Surveillance and Reconnaissance, HQ U.S. Air Force, Washington, DC. He is responsible to the Secretary and Chief of Staff of the Air Force for policy formulation, planning, evaluation, oversight, and leadership of Air Force intelligence, surveillance, and reconnaissance capabilities. As the Air Force's Senior Official of the Intelligence Community, he is directly responsible to the Under Secretary of Defense for Intelligence.

General Deptula completed ROTC at the University of Virginia as a distinguished graduate in 1974, and remained to complete a master's degree in 1976. Earning his wings in 1977, he has flown more than 3,000 hours (400 in combat) to include multiple operational fighter command assignments. He has taken part in operations, planning, and joint warfighting at unit, major command, service headquarters, and combatant command levels. He has served on two congressional commissions charged with outlining America's future defense posture—the Commission on Roles and Missions of the Armed Forces, and the National Defense Panel. Prior to assuming his current position, he served as Commander of the General George C. Kenney Warfighting Headquarters, and Vice Commander, Pacific Air Forces.

U.S. AIR FORCE

The United States Air Force (USAF) is the aerial warfare branch of the United States armed forces and one of the seven uniformed services. Previously part of the United States Army, the USAF was formed as a separate branch of the military on September 18, 1947, with the implementation of the National Security Act of 1947. The purposes of the Air Force are as follows: to preserve the peace and security, and provide for the defense, of the United States, the Territories, Commonwealths, and possessions, and any areas occupied by the United States; to support national policy; to implement national objectives; and to overcome any nations responsible for aggressive acts that imperil the peace and security of the United States. The stated mission of the USAF today is to "deliver sovereign options for the defense of the United States of America and its global interests — to fly and fight in Air, Space, and Cyberspace."

The U.S. Air Force has taken part in numerous humanitarian operations, which include, but are not limited to Operation Safe Haven (1956-57), Operation Provide Comfort (1991), and Operation Provide Hope (1992-93).

MR. ROMULO DIAZ

City Solicitor
City of Philadelphia Law Department

Since April 2005, Romulo L. Diaz, Jr., has served as the City Solicitor of Philadelphia by appointment of Mayor John F. Street and unanimous confirmation by City Council. The City Solicitor is the City's chief legal officer, the head of the City's Law Department, and a member of the Mayor's Cabinet. As City Solicitor, he has led City efforts to prepare for and implement gaming in Philadelphia; negotiated agreements for Wireless Philadelphia, the City's innovative wireless Internet access initiative; facilitated a comprehensive litigation settlement with the billboard industry resulting in the removal of nearly 950 illegal billboards; and developed foreclosure policies and tax payment plans to protect low-income homeowners, while achieving record collections. He joined the City of Philadelphia Law Department in March 2002, and previously served as Chair of the Commercial and Regulatory Law Group.

He received his J.D. from the University of Texas School of Law and B.A. from the University of Texas at Austin. He is licensed to practice in Pennsylvania, New Jersey, the District of Columbia, and Texas. Since November 2004, he has served as a Member of the Pennsylvania Energy Development Authority by appointment of Governor Edward G. Rendell and confirmation by the Pennsylvania Senate.

CITY OF PHILADELPHIA LAW DEPARTMENT

Under the Philadelphia Home Rule Charter, the City Solicitor is the chief legal officer and counselor for the City. The City Solicitor represents the Mayor, and his Administration, City Council and more than 30 City departments, commissions and agencies. The City Solicitor is a member of the Mayor's Cabinet, and manages the Law Department.

The City of Philadelphia Law Department is responsible for providing legal advice to all officers, departments, boards, and commissions within the City concerning any matter arising in connection with the exercise of their official powers. Included within this responsibility is the collection of all fines, taxes and other debts owed the City, the representation of the City and its officers in litigation, the preparation of ordinances for introduction in City Council, and the negotiation and preparation of City contracts.

VICE ADMIRAL JOSEPH DYER (USN, RET.)

President, iRobot Government and
Industrial Robots Division
iRobot

Joe Dyer leads the Government and Industrial Robots Division of iRobot. He comes to iRobot from a career in the U.S. Navy, where he last served as the commander of the Naval Air Systems Command. There, he was responsible for research, development, test and evaluation, engineering, and logistics for naval aircraft, air launched weapons and sensors. His naval career included positions as naval aviation's chief engineer, commander of the Naval Air Warfare Center, Aircraft Division, and F/A-18 program manager. Earlier in his career, he served as the Navy's chief test pilot.

He holds a bachelor's degree in chemical engineering from North Carolina State University and a master's degree in finance from the Naval Post Graduate School in Monterey, California. He is an elected fellow in the Society of Experimental Test Pilots and the National Academy of Public Administration. He chairs NASA's Aerospace Safety Advisory Panel.

iROBOT

iRobot delivers innovative robots that are making a difference in people's lives. From cleaning floors to disarming explosives, we constantly strive to find better ways to tackle dull, dirty, and dangerous missions—with better results.

Founded in 1990 by roboticists from the Massachusetts Institute of Technology, iRobot designs behavior-based, artificially intelligent robots. Powered by iRobot's proprietary AWARE™ Robot Intelligence Systems, its robots are designed to navigate through complex and dynamic real-world situations, from maneuvering around furniture to searching abandoned buildings. The robots are highly sophisticated, yet practical and easy to use.

To date, more than 2.5 million Home Robots have been sold worldwide and over 1,000 iRobot PackBot® Tactical Mobile Robots have been deployed worldwide, mostly in Iraq and Afghanistan. These robots have performed tens of thousands of missions and are credited with saving scores of soldiers' lives. iRobot has won numerous awards for innovation and design.

MR. JUAN ENRIQUEZ

Chairman and Chief Executive Officer
Biotechonomy, LLC

Juan Enriquez is the Chairman and Chief Executive Officer of Biotechonomy LLC, a life sciences research and investment firm. Mr. Enriquez, business leader, author, and academic, is recognized as one of the world's leading authorities on the economic and political impacts of life sciences. He was the founding director of Harvard Business School's Life Sciences Project.

He was also part of a world discovery voyage, led by Craig Venter, which sampled microbial genomes throughout the world's oceans. The expedition involves a number of institutions and top scholars including The Institute for Genomic Research, Woods Hole Oceanographic Institute, The Explorers Club, and The Gordon and Betty Moore Foundation. It has led to the discovery of an unprecedented number of new species.

He previously served as CEO of Mexico City's Urban Development Corporation, Coordinator General of Economic Policy and Chief of Staff for Mexico's Secretary of State, and as a member of the Peace Commission that negotiated the cease-fire in Chiapas' Zapatista rebellion. He earned a BA and MBA from Harvard, with Honors.

BIOTECHONOMY, LLC.

Biotechonomy is a life science venture capital firm that provides equity financing and management assistance to start-up and early stage, entrepreneurial companies. We focus on companies that are leaders in their domain, are in undervalued sectors, or are strategically positioned to take advantage of near-term trends and industry sea-changes. These include companies engaged in genomics-based energy, industrial and agricultural opportunities; companies with technologies that accelerate drug discovery and development; and businesses capable of improving the diagnosis and treatment of disease.

MR. ARNOLD FRIEDMAN

Vice President, Loral Space & Communications

Vice President of Marketing and Sales

Space Systems/Loral (SS/L)

Arnold Friedman is responsible for all of SS/L's commercial sales and marketing activity around the globe, including activity in more than 25 countries in the Americas, Asia, and Europe.

At SS/L, he has pioneered new satellite applications sales in digital radio, broadband Internet, local television, and next generation mobile satellite services, and under his direction the company has established itself as the world's leading provider of high-power commercial satellites.

Friedman rejoined SS/L in 2002 after a two-year hiatus as president of an international company formed to provide new satellite-based consumer television and telecommunications services.

Prior to that, he was vice president, ventures, for SS/L from 1996 to 2000. In that role, he directed sales campaigns to establish and start-up companies, and evaluated the potential of new technologies and investments.

SPACE SYSTEMS/LORAL

Based in Palo Alto, California, Space System / Loral designs and builds satellites and spacecraft systems for commercial and government customers around the world. As the leading provider of high-power commercial satellites, the company works closely with satellite operators to deliver spacecraft for a broad range of services including direct-to-home television, digital audio radio, broadband Internet, and digital multimedia broadcasting. With a 50-year history and nearly 1,400 on-orbit years logged, SS/L helps customers meet business objectives with advanced solutions based on space-proven heritage designs.

Loral Space & Communications is a satellite communications company. In addition to Space Systems/Loral, through its Skynet subsidiary Loral owns and operates a fleet of telecommunications satellites used to broadcast video entertainment programming, and for broadband data transmission, Internet services, and other value-added communications services.

THE HONORABLE JAMES GREENWOOD

President and Chief Executive Officer
Biotechnology Industry Organization

Mr. James Greenwood is President and Chief Executive Officer of the Biotechnology Industry Organization. Previously he represented Pennsylvania's Eighth District in the U.S. House of Representatives from January 1993 through January 2005. A senior member of the Energy and Commerce Committee, he was widely viewed as a leader on health care and the environment.

He served as Chairman of the Energy and Commerce Committee Subcommittee on Oversight and Investigation with oversight authority over issues in the full Committee's vast jurisdiction. He led hard-hitting investigations into corporate governance at Enron, Global Crossing, and WorldCom; terrorist threats to our nation's infrastructure; and waste and fraud in federal government agencies.

Prior to his election to Congress, he served six years in the Pennsylvania General Assembly and six years in the Pennsylvania Senate.

Mr. Greenwood graduated from Dickinson College with a BA in Sociology. He worked as a caseworker with abused and neglected children at the Bucks County Children and Youth Social Service Agency.

BIOTECHNOLOGY INDUSTRY ORGANIZATION

Biotechnology Industry Organization (BIO) in Washington, DC, which represents more than 1,100 biotechnology companies, academic institutions, state biotechnology centers and related organizations in all 50 U.S. states and 31 other nations. BIO members are involved in the research and development of health care, agricultural, industrial, and environmental biotechnology products. BIO also produces the BIO International Convention, the world's largest gathering of the biotechnology industry.

Since his appointment in January of 2005, Mr. Greenwood has markedly enhanced the trade association's capacity – increasing both its staff and budget by nearly fifty percent. BIO is now a world-class advocacy organization playing a leading roll in shaping public policy on a variety of fronts critical to the success of the biotechnology industry at the state and national levels as well internationally.

MR. JERRY HARRISON

Vice President, Business Development and Sales
General Dynamics C4 Systems

Based in Arlington, Virginia, Mr. Harrison is responsible for strategically positioning C4 Systems and winning business in international and domestic government and adjacent markets. C4 Systems is a premier tactical network provider to the Department of Defense with the associated battle management, command and control, communications, security, and computing. Additionally the company has significant business with the U.S. Coast Guard in the Department of Homeland Security, and sells security, computer and radio products into other federal agencies.

He supervises Account Directors for the Army, Navy, Air Force, Marines, DISA, Federal/Civil, Science and Technology, International and their associated field offices.

Prior to joining industry, he served in the United States Army in various command and staff positions, retiring as a Major General. His last assignments in the military were Commander of Laboratory Command and then as the Chief of Legislative Liaison for the Army.

He obtained his Bachelor of Science degree from the United States Military Academy at West Point and his Master of Science degree in Aerospace Engineering from the Georgia Institute of Technology.

GENERAL DYNAMICS C4 SYSTEMS

General Dynamics C4 Systems develops and integrates secure communication and information systems and technology. With more than 11,000 employees worldwide, the company specializes in command and control, communications networking, computing and information assurance for defense, government and select commercial customers in the United States and abroad.

MR. C. LINCOLN HOEWING

Vice President of Internet and Technology Issues
Verizon Communications, Inc.

C. Lincoln Hoewing is Vice President of Internet and Technology Issues for Verizon Communications, Inc. He is responsible for identifying and assessing emerging issues, developing corporate positions on Internet and Technology industry issues. In addition to the aforementioned responsibilities, Mr. Hoewing develops relationships with high technology industry members, interactive technology associations, research institutes, and think tanks. He frequently delivers public discourses on high technology issues and has been heavily involved in public policy discussions on broadband deployment.

His prior responsibilities include three years in the External Affairs positions at Bell Atlantic and Telecom in New Zealand. In New Zealand, he was responsible for negotiating Verizon's agreements between carriers, promoting the sale of New Zealand's Telecom stock, and working on inter-connection policies with the Government. He helped developed the company's Consumer policies and improved their customer service.

He also served eight years as a Congressional Legislative Aide and Deputy Staff Director on the Senate Governmental Affairs Committee. He has a Bachelor's degree from Carthage College and a Masters degree in Public Administration from American University.

VERIZON COMMUNICATIONS, INC.

Verizon Communications Inc., headquartered in New York, is a leader in delivering broadband and other wireline and wireless communication innovations to mass market, business, government, and wholesale customers. Verizon Wireless operates America's most reliable wireless network, serving more than 62 million customers nationwide. Verizon's Wireline operations include Verizon Business, which delivers innovative and seamless business solutions to customers around the world, and Verizon Telecom, which brings customers the benefits of converged communications, information and entertainment services over the nation's most advanced fiber-optic network. A Dow 30 company, Verizon has a diverse workforce of more than 238,000 and last year generated consolidated operating revenues of more than \$88 billion

DR. ANTHONY HYDER

Professor of Nuclear Physics
University of Notre Dame

Tony Hyder is a Professor of Physics at the University of Notre Dame. He teaches undergraduate and graduate level courses to science, engineering, and pre-professional students. He joined the faculty at Notre Dame in 1991 and served as the Associate Vice President for Graduate Studies and Research until 2005. His research interests are in space physics and nuclear astrophysics.

Prior to joining Notre Dame, he served as the Associate Vice President for Research as well as a faculty member of both Physics and Aerospace Engineering at Auburn University. He came to Auburn after an active-duty career in the Air Force, primarily in research and development assignments.

He has a B.S. in Physics from Notre Dame as well as an M.S. in Space Physics and Ph.D. in Nuclear Physics from the Air Force Institute of Technology. He currently serves as a member of the Missile Defense Agency Advisory Committee, the Army Science Board, and the Defense Intelligence Agency MASINT Technology Panel.

UNIVERSITY OF NOTRE DAME

The University of Notre Dame, founded in 1842 by Rev. Edward F. Sorin, C.S.C., of the Congregation of Holy Cross, is an independent, national Catholic university located in Notre Dame, Ind., adjacent to the city of South Bend and approximately 90 miles east of Chicago.

Admission to the University is highly competitive, with five applicants for each freshman class position. Sixty-nine percent of incoming freshmen were in the top five percent of their high school graduating classes.

At Notre Dame, education has always been linked to values, among them living in community and volunteering in community service. Residence hall life, shared by four of five undergraduates, is both the hallmark of the Notre Dame experience and the wellspring of the University's rich tradition. A younger tradition, the University's Center for Social Concerns, serves as a catalyst for student volunteerism. About 80 percent of Notre Dame students engage in some form of voluntary community service during their years at the University, and at least 10 percent devote a year or more after graduation to service in the United States and around the world.

MR. ROBERT HOLLEYMAN

President and Chief Executive Officer
Business Software Alliance

Robert Holleyman is President and Chief Executive Officer of the Business Software Alliance (BSA), the high tech industry's leading voice for global policies and programs that promote innovation and the continued growth of the digital economy.

He has been named one of the 50 most influential people in the intellectual property world by the international magazine, *Managing Intellectual Property*. He was also named by *The Washington Post* as one of the "key players in the U.S. Government's cybersecurity efforts" for his work on behalf of industry on national cyber security policy. Holleyman was designated by a leading computer trade magazine as one of its "Twenty to Watch" in the computer software industry. He has also been named by *Tech Counsel* magazine as one of the most influential high tech lobbyists.

He has appeared on all the leading network, public, and cable television news programs, and has written articles about technology industry trends that have appeared in newspapers, magazines, law journals and business and high tech trade publications around the globe.

BUSINESS SOFTWARE ALLIANCE

The Business Software Alliance (www.bsa.org) is the foremost organization dedicated to promoting a safe and legal digital world. BSA is the voice of the world's commercial software industry and its hardware partners before governments and in the international marketplace. Its members represent one of the fastest growing industries in the world. BSA programs foster technology innovation through education and policy initiatives that promote copyright protection, cyber security, trade, and e-commerce. BSA members include Adobe, Apple, Autodesk, Avid, Bentley Systems, Borland, CA, Cadence Design Systems, Cisco Systems, CNC Software/Mastercam, Dell, EMC, Entrust, HP, IBM, Intel, McAfee, Microsoft, Monotype Imaging, PTC, SAP, Siemens PLM Software, SolidWorks, Sybase, Symantec, Synopsys, and The MathWorks.

VICE ADMIRAL LOWELL JACOBY, (USN. RET.)

Executive Vice President, National Solutions Group
CACI International, Inc.

Vice Admiral Jake Jacoby is responsible for the National Solutions Group (NSG) of CACI International Inc. This group leads the company in developing CACI solutions for the members of the national Intelligence Community and for increasing intelligence sharing across the national and homeland security communities. The group has made CACI an industry leader in knowledge management; document conversion (imaging, electronic and optical character recognition) and document exploitation; records and case management; intelligence analysis, system and application development; intelligence dissemination and network management; systems engineering and technical assistance (SETA) support; multimedia productions; and lifecycle system integration.

The former Navy Vice Admiral has many years of military and intelligence leadership experience. Mr. Jacoby culminated his active duty career as Director of the Defense Intelligence Agency with key responsibilities supporting national authorities, combatant commanders and the warfighter, and he played a leading role in the global war on terrorism. His extensive military career included 20 consecutive years as a senior intelligence officer at numerous duty stations.

CACI INTERNATIONAL

CACI International Inc provides the IT and network solutions needed to prevail in today's new era of national security, intelligence, and e-government. From systems integration and managed network solutions to knowledge management, engineering, simulation, and information assurance, we deliver the IT applications and infrastructures our federal customers use to improve communications and collaboration, secure the integrity of information systems and networks, enhance data collection and analysis, and increase efficiency and mission effectiveness. Our solutions lead the transformation of national security and intelligence, assure homeland security, enhance decision-making, and help government to work smarter, faster, and more responsively. CACI is a member of the Fortune 1000 Largest Companies of 2007 and the Russell 1000 index. CACI provides dynamic careers for more than 10,600 employees working in over 120 offices in the U.S. and Europe. CACI is the IT provider for a networked world.

LIEUTENANT GENERAL JAY KELLY, (USAF, RET.)

President, Space Systems
ManTech International Corporation

Lieutenant General Jay Kelley is the President of ManTech's Space Systems business unit. He joined ManTech in April 2003 and was appointed to his current position in April 2004.

Previously he was Vice President of Mid-West Operations for ManTech. Before joining ManTech, he served over 37 years with the United States Air Force, retiring as a Lieutenant General. He was a "charter" member of Toffler Associates, and he has additional professional experience as the chief operating officer for STA, Inc., and later, the Vice President for Military Programs for Lockheed Martin Technical Operations.

MANTECH INTERNATIONAL CORPORATION

From its beginning in 1968, ManTech International Corporation has consistently delivered innovative technology and technical services solutions to federal government customers. Today, ManTech has grown to become one of the U.S. government's leading providers of innovative technologies and solutions for mission-critical national security programs supporting the Intelligence Community; the Departments of Defense, State, Homeland Security and Justice; the Space Community; and other federal government agencies. Our expertise covers systems engineering, software development, enterprise security architecture, information assurance, intelligence operations support, network and critical infrastructure protection, information technology, communications integration and engineering support. ManTech's solutions and support are dedicated to performance, deep in domain expertise, diverse in scope

Our focus on national security customers and our ability to successfully support their advanced technology mission-critical activities has helped us build a reputation as a reliable, innovative partner; develop deep domain expertise; and apply the capabilities of our highly skilled and dedicated workforce. Our diverse range of services and solutions help secure our nation, at home and abroad. This depth and breadth enables us to provide a full-range of life-cycle services from design, to development, to implementation.

MS. ELLEN MCCARTHY

Director, Human Capital Management
Under Secretary of Defense for Intelligence

Ms. McCarthy is Director of Human Capital Management Office within the Office of the Under Secretary of Defense for Intelligence. She is responsible for the development of policy, plans, programs, and oversight of personnel, training, education and career development of civilian and military defense intelligence positions within the Department of Defense, its component agencies and the military services. She joined the Office of the USD(I) where her primary focus was the development and coordination of Defense intelligence policy and strategy.

She has spent the previous 20 years supporting the Intelligence Community in a number of different capacities. Before joining the staff at OUSD(I), she was the Director of Intelligence Strategy and Policy at the United States Coast Guard. She has worked extensively with the Navy at the strategic, operational, and tactical level having served as an analyst at the Office of Naval Intelligence and at Atlantic Fleet where she provided support to the Navy's undersea warfare community.

She is a graduate of the University of South Carolina and holds a Master Degree in Public Policy from the University of Maryland.

UNDER SECRETARY OF DEFENSE FOR INTELLIGENCE

The Under Secretary for Intelligence or USD(I) is a position within the United States government that acts as the principal advisor to the United States Secretary of Defense on matters relating to intelligence. The USD(I) is also dual-hatted, serving as the Director of Defense Intelligence under the Office of the Director of National Intelligence. The Under Secretary is a civilian appointed by the President and confirmed by the Senate.

The position was created by the National Defense Authorization Act for Fiscal Year 2003. It became second in the line of succession for the Secretary of Defense, after the Deputy Secretary of Defense, after an executive order was made by President George W. Bush on December 22, 2005. When it was created, the legislation described it as taking precedence in the Department behind the Under Secretary for Personnel and Readiness.

On November 23, 2005, a Department of Defense Directive was made by Secretary Rumsfeld that stated that the Under Secretary shall serve as the Secretary's primary representative to the Office of the Director of National Intelligence. It also stated the Under Secretary shall provide policy and oversight on the training and career development of personnel in Department of Defense's counterterrorism, intelligence, and security components. The Under Secretary has the duty of finding candidates to be nominated to serve as Directors of the Defense Intelligence Agency, the National Geospatial-Intelligence Agency, the National Reconnaissance Office, and the National Security Agency, and overseeing their performance.

MR. JOE MCDADE

Director, Airman Development and Sustainment
U.S. Air Force, HQUSAF/A1D

Joseph M. McDade Jr., a member of the Senior Executive Service, is the Deputy Director of Airman Development and Sustainment, Deputy Chief of Staff for Manpower and Personnel, Headquarters U.S. Air Force, Washington, D.C. He is part of the leadership team responsible for sustaining and deliberately developing the force via policies and programs that further the Chief of Staff's Force Development vision. He provides policy advice on commander's programs, training, education, assignments, and developing Airmen. He is also part of the leadership team responsible for providing Headquarters U.S. Air Force support to the U.S. Air Force Academy.

Mr. McDade began his career with the Air Force in 1991 as an Assistant General Counsel in the Procurement Division of the Office of the General Counsel. In 1993, his responsibilities expanded to include establishing and implementing Air Force alternative dispute resolution program. Between 1999 and 2002, the ADR Program won five national awards for excellence. He later served as Deputy General Counsel for Dispute Resolution where he led a newly created division in the Office of the General Counsel. Under his leadership, the Air Force avoided hundreds of millions of dollars in liability and dramatically reduced the time required to resolve civilian personnel and contract disputes.

U.S. AIR FORCE, HQUSAF/A1D

The U.S. Air Force Airman Development and Sustainment Directorate (HQUSAF/A1D) shapes and develops the Force via policies and programs that further the Chief of Staff of the Air Force's (CSAF) Force Development vision.

A1D directs, guides, and oversees Air Force accessions; basic and specialized skills training; developmental education; and management of Air Force career fields, skills balance and end strength. The directorate also provides policy advice to the Deputy Chief of Staff of the Air Force for Personnel, the Chief of Staff of the Air Force, and the Secretary of the Air Force on training, education, and force development, and provides Headquarters Air Force support to the U.S. Air Force Air Education and Training Command (AETC) and the U.S. Air Force Academy (USAFA).

MR. STEVEN MCGOUGH

Group Manager, Internal Communications
Sprint Nextel Corporation

Steven S. McGough is Group Manager, Internal Corporate Communications for Sprint Nextel Corporation. After obtaining a degree in Marketing from George Mason University, he managed utility construction projects and marketing programs for Virginia Power (now Dominion). He spent two years managing internal communication projects for various telecom and utility companies as a Senior Manager with Weber Associates, a communications consulting firm. He then joined Nextel, and subsequently Sprint Nextel, where he leads a team working with corporate officers developing and implementing internal communication strategies that further the strategic objectives of the company.

SPRINT NEXTEL CORPORATION

Sprint Nextel offers a comprehensive range of wireless and wireline communications services bringing the freedom of mobility to consumers, businesses, and government users. Sprint Nextel is widely recognized for developing, engineering, and deploying innovative technologies, including two robust wireless networks serving 54 million customers at the end of the second quarter 2007; industry-leading mobile data services; instant national and international walkie-talkie capabilities; and a global Tier 1 Internet backbone.

**LIEUTENANT GENERAL GEORGE MUELLNER,
(USAF, RET.)**

President, Advanced Systems,
Integrated Defense Systems
The Boeing Company

Lieutenant General George Muellner, (USAF, Ret.) is President of Advanced Systems for the Integrated Defense Systems business unit of the Boeing Company, responsible for developing advanced cross-cutting concepts and technologies, and executing new programs prior to their reaching the System Design and Development phase.

A highly decorated veteran, Muellner spent most of his career as a fighter pilot and fighter weapons instructor, test pilot and commander. He flew combat missions in Vietnam and commanded the Joint STARS deployment during Operation Desert Storm.

He holds a bachelor's degree in aeronautical and astronautical engineering from the University of Illinois, a master's degree in aeronautical systems management from the University of Southern California, a master's degree in electrical engineering from California State University and a master's degree in business administration from Auburn University. He also completed courses at the Air War College at Maxwell Air Force Base, AL, the Defense Systems Management College at Fort Belvoir, VA, and the Naval War College in Newport, RI.

THE BOEING COMPANY INTEGRATED DEFENSE SYSTEMS

Boeing is the world's second-largest defense company. Boeing Integrated Defense Systems provides end-to-end services for large-scale systems that combine sophisticated communication networks with air-, land-, sea- and space-based platforms for global military, government, and commercial customers. The company offers an extraordinary range of defense and space systems products and services. It designs, produces, modifies and supports fighters, bombers, transports, rotorcraft, aerial refuelers, missiles, and munitions and is on the leading edge of military technology through its unmanned systems development efforts. Integrated Defense Systems also supports the U.S. government on several programs of national significance, including the Missile Defense Agency's Ground-Based Midcourse Defense program, the Air Force's Evolved Expendable Launch Vehicle program and NASA's International Space Station. The company has become the systems integrator for several new programs, including the U.S. Navy's Multi-Mission Maritime Aircraft Program, the U.S. Army's Future Combat Systems and Joint Tactical Radio Systems, the Family of Advanced Beyond Line-of-Sight Terminals for the Department of Defense, and SBInet, a critical component of the Secure Border Initiative managed by the Department of Homeland Security.

DR. KENNETH OSCAR

Vice President for Strategy
Fluor Corporation

Dr. Oscar joined the Fluor Corporation as Vice President for Strategy on April 1, 2002. He also serves as Chairman of the Board of SAAB Baracuda LLC and is on the Board of Ultra Electronics. He served as the Acting Assistant Secretary of the Army (Acquisition, Logistics, and Technology). He served as the Acting Administrator for the Office of Federal Procurement Policy, OMB, Executive Office of the President.

He has served in numerous other Army positions including Associate Technical Director for Research and Development at the U.S. Army Troop Support Command, Director of the Combat Engineering Laboratory at the Belvoir Research and Development Center and Project Manager for several programs, including countermine equipment, tactical bridging, and unconventional weapons.

Dr. Oscar holds a B.S. in Physics from Clarkson University, as well as an M.S. and Ph.D. in Physics from American University. He is a member of numerous professional societies, including the New York and Virginia Academies of Sciences. He has published more than 55 papers; many in international scientific journals.

FLUOR CORPORATION

Fluor Corporation is one of the world's largest, publicly owned engineering, procurement, construction, and maintenance services companies. Over the past century, Fluor, through its operating subsidiaries, has become a trusted global business leader by providing exceptional expertise and technical knowledge across every phase of a project. Clients rely on Fluor to deliver world-class solutions that optimize their assets, improve their competitive position, and increase their long-term business success.

DR. VALERIE PATRICK

Manager, Creative Center – Future Business
Bayer MaterialScience LLC

Dr. Patrick leads the Creative Center in the Future Business group for Bayer MaterialScience LLC. The Creative Center uses proven tools and a systematic approach to manage the “fuzzy front end” of innovation, tracking social, economic, and technology trends and identifying potential growth areas ripe for BMS material innovations. In addition, the Creative Center currently brings value to BMS by facilitating the creative process with our colleagues and customers in the quest for future business, shining a light on target-rich areas for BMS innovations, and building an innovation network based on our credibility as experienced innovators.

She received her Bachelor of Science in Chemical Engineering, Summa Cum Laude, from Bucknell University of Lewisburg, Pennsylvania in 1984. She went on to receive her Master of Science and Ph.D. in Chemical Engineering from California Institute of Technology of Pasadena, California in 1987 and 1988 respectively. She is also a member of the American Institute of Chemical Engineers.

BAYER MATERIALSCIENCE AG

Bayer MaterialScience AG is an independent, globally operating company within the Bayer Group. The name Bayer MaterialScience stands for the materials that the company develops and produces. It also stands for the knowledge and expertise of its employees all over the world, who register on average one new patent every working day. This spirit is embodied by the company's mission statement "VisionWorks."

Bayer MaterialScience employs around 14,900 employees at more than 30 locations throughout the world.

MR. JOHN PISTOLE

Deputy Director of FBI
Federal Bureau of Investigation

John S. Pistole began his career as a Special Agent with the FBI in 1983, serving in Minneapolis and New York before being promoted to a Supervisor in the Organized Crime Section at FBI HQ. He later served as a field supervisor of a White-Collar Crime and Civil Rights Squad in Indianapolis, where he created a Health Care Fraud Task Force and a Public Corruption Task Force. Mr. Pistole next served as Assistant Special Agent in Charge in Boston MA, helped lead the Information Security Working Group at FBI HQ, and in 2001 was named an Inspector in the Inspection Division in Washington D.C.

Following the events of 9/11, Director Mueller appointed Mr. Pistole to the Counterterrorism Division, first as Deputy Assistant Director for Operations, then as Assistant Director, and finally as the Executive Assistant Director for Counterterrorism and Counterintelligence. In October, 2004, Mr. Pistole was promoted to Deputy Director, the number two position in the FBI. He is a recipient of the 2005 Presidential Rank Award for Distinguished Executive, and in 2007 he received the Edward H. Levy Award for Outstanding Professionalism and Exemplary Integrity.

Mr. Pistole practiced law for two years prior to joining the FBI. He is a graduate of Anderson University (Indiana) and the Indiana University School of Law – Indianapolis.

THE FEDERAL BUREAU OF INVESTIGATION

The Federal Bureau of Investigation (FBI) is the primary investigative arm of the United States Department of Justice (DOJ), serving as both a federal criminal investigative body and a domestic intelligence agency. At present, the FBI has investigative jurisdiction over violations of more than 200 categories of federal crimes, making the FBI the de-facto lead law enforcement agency of the United States government. The motto of the bureau is "Fidelity, Bravery, Integrity".

It was established in 1908 as the Bureau of Investigation (BOI), and the name was changed to the FBI in 1935.

The FBI Headquarters are in Washington, D.C., and the FBI also has 56 field offices located in major cities throughout the United States as well as over 400 resident agencies in smaller cities and towns across the nation, and more than 50 international offices, called "Legal Attaches", in U.S. embassies worldwide.

The Mission of the FBI is "To protect and defend the United States against terrorist and foreign intelligence threats, to uphold and enforce the criminal laws of the United States, and to provide leadership and criminal justice services to federal, state, municipal, and international agencies and partners.

MAJOR GENERAL PAUL SELVA

Director, Air Force Strategic Planning
U.S. Air Force, HQ AF/A8X, Strategic Planning

Major General Paul J. Selva is Director, Air Force Strategic Planning, Deputy Chief of Staff for Strategic Plans and Programs, Headquarters U.S. Air Force, Washington, DC. In this capacity, he is responsible for directing the development and implementation of Air Force long-range strategic planning, as well as providing associated policy guidance. He serves in three positions as he is also the Director, Air Force Quadrennial Defense Review, Office of the Air Force Vice Chief of Staff, Headquarters U.S. Air Force. In this capacity, he is responsible for development and coordination of Air Force analysis, outreach, concepts, and strategy for the QDR. Additionally, he serves as the Director, Air Force Smart Operations, Office of the Secretary of the Air Force, Washington, DC. In this capacity, he is responsible for developing, leading, and sustaining continuous process improvement for the Total Force as well as fostering increased combat capability through increased productivity and efficiency.

He graduated from the U.S. Air Force Academy in 1980, and completed undergraduate pilot training at Reese Air Force Base, Texas. He has held numerous staff positions and has commanded at squadron, wing, and headquarters levels. Prior to his current assignment, the general was Director of Operations, U.S. Transportation Command, Scott Air Force Base.

U.S. AIR FORCE, HQ AF/ABX, STRATEGIC PLANNING

The HQ U.S. Air Force Directorate of Strategic Planning (AF/A8X) is responsible for providing policy and guidance on the long-range plan, maintaining the Air Force Strategic Vision, developing the Air Force Strategic Plan, assisting in the development of the Annual Planning and Programming Guidance (APPG), and researching and advocating future capabilities, concepts, strategies, and transformation initiatives. A8X functions include: conducting Air Force strategic (long-range) planning with a focus on identifying critical future capabilities to achieve desired future operational effects; developing and providing strategic planning guidance and directives to the rest of the Air Staff and the MAJCOMs to direct their planning activities; developing, maintaining, and updating the Air Force Strategic Plan based on guidance from senior Air Force leadership; developing and employing appropriate analytical planning tools to increase the efficiency and effectiveness of planning activities; acting as Air Force lead for DoD Planning and Programming Guidance to ensure compliance in Air Force planning and programming documentation and processes; and providing guidance for development of MAJCOM Road Maps and integrating MAJCOM products into the master Air Force Road Map.

MR. SUDHAKAR SHENOY

Founder, Chairman and Chief Executive Officer
IMC, Inc.

Mr. Sudhakar Shenoy was named one of the Top 25 Most Influential People in the Washington, DC high-tech industry, as well as being awarded the 2004 Executive of the Year by the Northern Virginia GovCon Council, the Professional Services Council, and Washington Technology. In 2002, Bio-IT World recognized him as a Bio-IT Champion for IMC's innovative work in bringing together information technology and the life sciences. He, along with a dozen other Fortune 500 CEOs, was selected for several Presidential trade and development missions to India (1995), Spain (1995), and Berlin (1999). He is the Chairman of the Northern Virginia Technology Council, a Commissioner of the Fairfax County Economic Development Authority and a member on the Virginia Governors Commission on Bio Technology.

Mr. Shenoy received a B.Tech. with honors in electrical engineering from Indian Institute of Technology, an M.S. in electrical engineering and an M.B.A. from the University of Connecticut Schools of Engineering and Business Administration, respectively.

IMC CORPORATION

IMC is an award-winning technology solutions company, providing expert government, commercial, and scientific solutions designed for each client's precise mission. IMC projects have received the prestigious Golden Hammer Awards, awarded by the Vice President of the United States—as well as IMC was listed in the Top 20 “Ones to Watch” list and won a GCN Industry IT award for being the Top Fast-Growth Firm.

MR. DAVID STAFFORD

Vice President Maritime and Tactical Systems
Northrop Grumman Corporation
Integrated Systems Sector

David Stafford is the Vice President for Maritime and Tactical Systems. In this capacity, he develops strategy and leads the execution of an Integrated Product Team whose objective is integrating dispersed maritime sensors, systems, platforms, weapons, and networks to improve missionality. His responsibilities include the design, development and employment of solutions for maritime domain awareness and engagement for the defense of the Nation and its allies.

Mr. Stafford joined the company in 1983 after service with the Department of State and the U.S. Army. He has more than 25 years of development, business and contracts management experience. His previous positions include Sector Vice President of Business Development, Washington Operations and President of Northrop Grumman International Inc. He has also served as the Vice President of, Advanced Development, as well as Business and Strategic Development for the AEW/EW business area of Integrated Systems and as the Director of Business Management for Electronic Warfare Programs. Mr. Stafford received his bachelor's degree from Florida International University and completed the executive programs at the John Anderson Graduate School of Management at the University of California, Los Angeles (UCLA) and Massachusetts Institute for Technology

NORTHROP GRUMMAN CORPORATION

Northrop Grumman Corporation is a global defense company headquartered in Los Angeles, California. Northrop Grumman provides technologically advanced, innovative products, services, and solutions in systems integration, defense electronics, information technology, advanced aircraft, shipbuilding, and space technology. With 125,000 employees, and operations in all 50 states and 25 countries, Northrop Grumman serves U.S. and international military, government and commercial customers.

THE HONORABLE ROBERT WALKER

Chairman

Wexler and Walker Public Policy Associates

Congressman Robert S. Walker retired from the U.S. House of Representatives after serving Pennsylvania's 16th District for twenty years.

As Chairman of Wexler & Walker, the former Congressman has been cited as one of Washington's top lobbyists by The Hill newspaper; as a "superstar lobbyist" by Financial Wire; is regularly called upon to testify on Capitol Hill; is a Bush Administration confidante having been asked to serve as Chairman of the Commission on the Future of the United States Aerospace Industry, as a member of the President's Commission on the United States Postal Service and as a member of the Presidential Commission on the Implementation of the United States Space Exploration Policy; was appointed to the Aviation and Space Engineering Board of the National Research Council. is a familiar participant on CNN's "Crossfire" and Fox News; is a lecturer at the Brookings Institution, the Georgetown University Government Affairs Institute and the Kennedy School at Harvard University; is a commentator and resource for CNBC, PBS, Fox News, and several major national newspapers; and is a writer of books and articles. All of this activity gives Wexler & Walker clients unparalleled insight into public policy formulation and decision-making.

WEXLER AND WALKER PUBLIC POLICY ASSOCIATES

Wexler & Walker Public Policy Associates is a Washington-based, full-service government relations firm founded in 1981, making us one of the oldest lobbying firms in the nation's capital. Yet we consistently are recognized as one of the most innovative and up-to-date companies in our field. Our solid record of achievement has helped us earn the trust and confidence of our clients.

We offer the special care and personal attention that is only possible with a truly collegial group that is committed to performing the highest quality service. Our staff is comprised of professionals with diverse experiences and different skills and relationships.

Everyone at Wexler & Walker Public Policy Associates has significant background inside government. Our principals have served in Congress, in the White House and federal agencies, as congressional staff, in state and local governments and in political campaigns. We are fully bipartisan and politically active. Most members of the firm have had extensive personal involvement in political campaigns and continue to provide substantial support and counsel to candidates for office from both major political parties.

In short, our philosophy in conducting business is simple—we combine highly personalized service, value-added government experience, and a total bipartisan commitment to client success. Fortune magazine recently ranked Wexler & Walker Public Policy Associates as one of the top lobbying firms in Washington.

MR. JAN WILMOTT

Executive Director, UBS Leadership Institute and
Head, Group Talent Management and Development
UBS Leadership Institute

Jan Wilmott joined the UBS Leadership Institute in May of 2005 as Executive Director and Head of Group Talent Management & Development. He is the former Director of Leadership Development for The Boeing Company. As a senior member of leadership team that designed, built, and opened The Boeing Leadership Center\$100residence facility with a \$42M annual budget, he and his team were responsible for developing and deploying two, three, & four week transformational learning experiences for The Boeing Company's 20,000 first, mid, and executive level leaders.

The Boeing Leadership Center achieved many prestigious awards during his tenure, including: ranked #1 by the Corporate University Excellence Exchange for *"Leadership Development Best Practices"* and Ranked #4 by Executive Excellence Magazine for *"Best Leadership Development Programs."* He is a founding partner of the International Consortium, a senior executive global leadership development partnership with ABB, ABN Amro Bank, BHP Billiton, Tata & Sons, Standard Bank of SA, The Benfield Group and The Boeing Company.

UBS LEADERSHIP INSTITUTE

UBS is one of the world's leading providers in wealth management, investment banking, and asset management, as well as the market leader in Swiss retail and commercial banking. Wilmott and his global team are focused on developing systems, processes, and tools necessary for UBS to become the global leader in attracting, developing, and retaining current and future talent.

The UBS Leadership Institute works closely with the Chairman, Group CEO and Group Executive Board of UBS to design and deliver strategic cross-Business Group learning and developmental activities that enables current and future executive leadership to effectively drive organic growth. The Leadership Institute is responsible for the Annual Strategic Forum, an annual meeting of the Group Executive and Group Managing Boards, and the Senior Leadership Conference held annually for the top 700. In addition, the Institute runs the Global Leadership Experience family of programs aimed at participants in senior leadership positions. The UBS LI has recently achieved two prestigious awards: ranked #1 by the Corporate University Exchange for the "best launch of a corporate university" and the "2005 Top Ten Companies in Executive Development". In addition, UBS has been named Europe's "Top Company for Leaders 2005". He is currently supporting the development of a strategically focused analysis and re-design of UBS L&D and TM&D architecture, models, processes, and curriculum.

TOFFLER ASSOCIATES – THE FIRM

Toffler Associates® is the executive advisory firm founded by Alvin and Heidi Toffler whose world-renowned works include *Future Shock*, *The Third Wave*, *War and Anti War*, *Powershift* and the recently released *Revolutionary Wealth*. We work with clients who want to understand the future and prepare their businesses to be effective in a marketplace and society shaped by the emerging Third Wave economy.

Our clients are business leaders and planners, as well as key executives and decision-makers in governmental organizations. We are experienced in sectors ranging from information technology, aerospace, telecommunications, to financial services. Toffler Associates' people have worked in various geographic regions including Asia, the Americas, and Europe.

The solutions and strategies we help develop build on the Tofflers' work and encompass a number of unique capabilities:

- Comprehensive views of technological, social, economic, and other environmental impacts that will affect business growth.
- Creative strategies that anticipate and pre-empt the competitive moves and counter-moves of others.
- Implementation of high-impact strategic initiatives, in the context of deep organizational and cultural change.
- Industry forecasts based on models that go far beyond trend analysis and reveal the 2nd and 3rd order causes and consequences of change.

Toffler Associates has demonstrated these capabilities in a variety of contexts. We recently helped a Fortune 50 technology firm identify and realize new vertical market opportunities. We have worked with the highest-ranking US military officers and their civilian counterparts to develop national security strategies for the next millennium. We are now helping a communications technology company identify new product offerings intended to reshape their industry. We have developed new distribution channels for entrepreneurial providers of specialty outsourcing services.

We are experienced executive advisors who work with senior corporate clients. Our people come from a wide range of professional backgrounds, but share a common focus and expertise – the ability to adapt the Tofflers' insights to help build practical strategies and actions.

Toffler Associates works with clients in several ways. Typically, our teams of experienced professionals work closely with client counterparts in joint planning, research, idea development, evaluation, decision, and often implementation. We make maximum use of the Tofflers' unmatched, worldwide network in business, futurist, media, national security, government, and other arenas to provide our clients with an exceptional level of connectivity to expertise, knowledge, and cutting-edge ideas.

TOFFLER ASSOCIATES – THE PARTICIPANTS

Deb Westphal is Managing Partner of Toffler Associates®. She advises CEOs and senior executives in private and public sector organizations globally on strategy, innovation and growth in competitive environments. She has served on the board of directors of several nonprofit organizations. She holds a BS degree in Electrical Engineering, an MBA, and has completed executive education at the Harvard Business School.

Tom Johnson is a Partner in Toffler Associates®. He is an advisor to senior executives at several of the world's top high-tech firms, financial services firms, industrial and service companies, government agencies, and knowledge based organizations. Tom's work focuses on the theme of gaining value during the transformation of industries enabled by information technology. *Information Week* named him one of the top twenty consultants in the United States. Tom was President of Tenex Consulting, a strategy boutique; the founder and Executive Director of the Nolan Norton Institute; and a senior partner at KPMG Peat Marwick. Prior to that he was on the faculty at the Wharton School of Business and the University of Grenoble, France. Mr. Johnson received his graduate degrees in Computer and Information Sciences at the University of Pennsylvania, and his undergraduate degree from Carnegie Mellon University.

Steven Kenney is a Partner with Toffler Associates®. He has more than fifteen years experience leading strategy initiatives for private sector and government clients. Steven leads Toffler Associates' portfolio of consulting for

Federal agencies on a variety of transformation and change management efforts in the US and internationally. He also advises the top leadership of high technology corporations on identifying new market opportunities and effective strategies for pursuing them. His areas of expertise include scenario-based planning, human capital strategy, and making organizational change effective. Steven has a BA from the University of California, an MA in International Affairs from Columbia University, and has completed executive education at the Harvard Business School.

Aaron Schulman is a Partner in Toffler Associates®. He has over 20 years of progressive and diversified consulting experience encompassing the areas of strategy, organizational change, and futures analysis. He oversees the national security and government sector in Toffler Associates, and advises senior leaders in their transformation, investment and growth strategies. His clients include the U.S. intelligence agencies, the Department of Defense, civilian government agencies, and commercial sector clients. Mr. Schulman received his MA in consulting psychology from Harvard University, and his BA in psychology from The American University. He has completed Executive Education at Northwestern University's Kellogg School of Management.

Dick Szafranski is a Partner in Toffler Associates®. His consulting portfolio includes advising CEOs and senior executives on managing change, creating growth, and remaining competitive in the future. He serves on a number of industry advisory boards. Until its acquisition by General Electric, he was an independent director on the board of directors of a NASDAQ computer company. He is now serving as an independent director on the board of direc-

tors of the Ceridian Corporation (NYSE). He has an MA in Human Resources Management and has completed executive education at the Harvard Business School. He presently serves as a member of the Defense Science Board's 2007 summer study.

Victoria Fung is a Principal with Toffler Associates®. She leads multiple engagements for senior clients in defense and government focusing on the redesign of business processes and strategies to facilitate enterprise transformations. She is fluent in Cantonese and proficient in Spanish. She earned a BS in Management Information Systems and International Business Management from Babson College in Wellesley, Massachusetts, with a concentration in international studies.

Bridget Gaffney is a Principal with Toffler Associates®. growth opportunities and competitive strategies, managing enterprise transitions, and attaining peak organizational performance. She is an expert in identifying emerging markets and advising on how to capitalize on them. She has competed in numerous running events, including the Boston Marathon. Bridget holds a BA in International Relations from Norwich University and has lived and worked abroad.

Ward Jones is a Principal with Toffler Associates®. He advises executives in the commercial and government markets on issues related to strategy, structure, programs, and operations. He is an expert at creating market assessments and capturing the "voice of the customer" for clients in emerging and competitive markets. Ward is a former infantry and intelligence officer in the Marine

Corps. He received a BA from the United States Naval Academy.

Carl Kaminski is a Principal with Toffler Associates®. Carl has both extensive industry experience and more than twenty years experience consulting with major government agencies and Fortune 1000 companies in the aerospace, communications, computer, and healthcare sectors. He specializes in strategy development, technology management and organizational change. He has a track record of managing complex, multidisciplinary engagements that encompass strategy and organizational alignment for clients in the United States, Europe, and South America. He has served on the adjunct faculty at Boston University in the areas of strategy and product development. He received his undergraduate degree in engineering and an MBA from Case Western Reserve University. He has done post-graduate work in management at Northwestern University and has participated in MIT's Management of Technology Program.

Don Kidd is a Principal with Toffler Associates®. He specializes in strategy development and customer relationship management, and has nearly thirty years experience in operational planning and execution, training and professional development, strategic planning, and directing people and activities to meet operational and strategic goals. Don received a BS degree from St. Vincent College, an MBA from National University, and an MS degree in national security studies from the Air War College.

Bryan Pelley is a Principal with Toffler Associates®. He utilizes his experience in strategic planning, performance management, and operations management to plan, organize, and control complex projects involving hundreds of individuals and a half billion dollars worth of resources. Bryan specializes in helping organizations sense and respond to future threats and changes in their competitive environment. He also leads efforts to cultivate future leaders, change agents, and innovators. A veteran of Operation Iraqi Freedom, Bryan holds a BA degree in international affairs from The George Washington University.

Josh Foust is a consultant with Toffler Associates. He has concentrated experience in proposal writing, as well as web development, and extensive regional expertise in the former Soviet Union. He has lived and worked abroad. His articles analyzing U.S. foreign policy in central Asia have appeared in several publications, and he has been sought for commentary on energy politics throughout the region. He holds a B.A. in international Affairs from the University of Colorado at Boulder.

Enrique F. (Hank) Miranda is a strategy consultant with Toffler Associates. He is a dynamic executive with over 24 years of demonstrated leadership and expertise in operations, strategic planning, budget management, HR/organizational development and team building for both large and small organizations. Prior to joining Toffler Associates, Hank served in the U.S. Navy where he commanded U.S. and coalition forces in support of Operations Enduring Freedom and Iraqi Freedom. He has concentrated experience in strategy development, maritime

security, global missile defense, and technical intelligence operations. He received his Bachelor of Science degree from the United States Naval Academy and Master of Science degree in Technical Intelligence from the Naval Postgraduate School.



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