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Ben Iannotta: Actually, I'm starting two [tape recorders]. Using redundancy, you know?

George Nield: [laughter] Very good.

Iannotta: Most people can talk while they start tape recorders, but I know my limits, so that's why I'm speaking slowly.

Nield: Very good, I salute you.

Iannotta: [Aside about an upcoming Aerospace America project]

Iannotta: All right, so first, I just wanted to go over some basics. Do you have about 45 minutes, maybe an hour?

Nield: Yes.

Iannotta: OK, let's see, so the concept here is – I mean you have the articles we did two years ago, whenever that was. At least I think we sent that to you, or I sent it to you?

Nield: Yes, I do.

Iannotta: All right, so we might be a little bit different, but I at least wanted you to have that idea. You know, we always like to think we're making improvements, right?

Nield: Sure, sure.

Iannotta: So the basic idea is we'll run some excerpts, have some bio info, and some colorful stuff so readers can understand you in a very, you know, kind-of-fun-to-read package. I really want to get it in January, because I'm thinking we'll have issues at SciTech, so we might get people really thinking about it.

Nield: Yes.

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Iannotta: And then we'll put, at least the plan right now is, to put a longer version of this online. I don't even think we'll call it a full transcript, because we'll probably compress and take out, you know, small talk, or planning discussion like I'm having right now. That sort of thing. Anyway, I just wanted you to understand what we're doing. So just before I get into the discussion, thank you for sending that information I requested.

Nield: Certainly.

Iannotta: I had a couple questions about it though. I went online, so Commercial Space Technologies, what do they do in a nutshell?

Nield: So, that is my company that allowed me to be an independent consultant and provide support and stay engaged with what's going on in our industry. [side conversation about a company with a similar name]

Iannotta: OK, all right, good. So that's your consulting company? Would that be an OK way to put it?

Nield: Yes.

Iannotta: OK, then on the notables section. I don't actually have it in front of me, what we did two years ago, but what I'd like to do this time is have a little more color there. [Side conversation about the notables section and his job titles and role at FAA]. And I thought it would be a good place to put also the fact that you're a pilot, right?

Nield: Yes.

Iannotta: What do you fly?

Nield: I haven't flown regularly recently, but I have my commercial and instrument pilot ratings, and was a certified flight instructor for gliders. So, I was quite active in the aero club when I was an officer out at Edwards Air Force Base and flew Cessna 150s and Mooneys and T-34s, and all kinds of little airplanes.

Iannotta: OK, right and so the glider experience, was that more recent?

Nield: I actually got my initial glider pilot's license when I was a cadet at the Air Force Academy going to college, but then later on when I came back and served on the faculty, I had finished up my instructor rating and so in the summers when I

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wasn't teaching aeronautical engineering to cadets, I had an opportunity to instruct in the gliders to help take them up to solo, and boy that was a really fun and interesting and challenging assignment because you have to decide, when is this person safe? They'll fly all by themselves when they have had no previous flying experience, but it was a lot of fun.

- Iannotta: Wow, that is, that must be beautiful too, that was in Colorado, obviously?
- Nield: Yes, that's right, you've got the Rocky Mountains right there to look at when you're flying around.
- Iannotta: Yep, and so why is flying gliders, is that part of learning to, for an airman to be a pilot, or is that just for fun?
- Nield: That was really trying to expose all of the cadets to what flying is all about, because, again, most people have not had that opportunity other than flying on a commercial airliner. And to see what that's like and to look out and see the view and feel the acceleration. You can do that pretty cheaply and pretty simply in small aircraft or gliders. Then when you add the challenge of controlling the glider all by yourself, and that's a pretty neat little training opportunity. They try to run all the cadets through at least to, to solo for gliders, and then others will get the opportunity to get additional training before they go off to formal pilot training after they graduate.
- Iannotta: Wow, that's, I know I should know that, but now I do. Interesting, OK, and then you know when, and if there's other interesting notable things, you know, like tangible achievements, stuff like that. You know, and if you want to give me a sense of what you view as a priority. I definitely think, you know you want the piloting stuff in there, but other than that I leave it to you.
- Let's just dive in if you don't mind.
- Nield: Sure.
- Iannotta: You know, I read, I know you've been involved with AIAA, I think you said, 45 years in here.
- Nield: Yes, that's right.
- Iannotta: What got you involved and why have you stayed engaged all these years?

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Nield: I'm sorry, say it again please.

Iannotta: What got you involved? Why did you decide to get involved in AIAA? Whatever you were then, a student or a professional?

Nield: I had a real passion for aviation and space and AIAA, as the oldest and largest professional society for aerospace, seemed like the natural organization to be affiliated with, and I have really enjoyed my involvement over the years. To learn about what was going on in the industry, to get to know the network of people who were a part of this industry, and then to gain additional experience in project management and leadership roles at the section level, and regions, and on the board of directors.

Iannotta: Right, so now here you are, you want to be president of AIAA. In your view, what's the role of a successful AIAA president?

Nield: To provide leadership to the organization, which means you need to have a vision for where we want to try to go, to assess all of the skills and capabilities that the organization and its members have, and to try to suggest ways to achieve some meaningful goals along the way.

Iannotta: Right, I gotcha. Are there things that come to mind that you've seen past presidents do that you think were successful that you could kind of tap into?

Nield: Well, we've had a number of really successful presidents, but many of those folks have been famous and great aerospace role models for me, even before they took on that job, whether it's astronauts or general officers or secretaries of the Air Force and all those kinds of things. I think we're at a pretty unique place in history right now with all that's happening in aerospace. Whether it's the proliferation of drones and fly-back boosters, reusable launch vehicles, and the development of flying cars and all-electric aircraft, plans for lunar settlements, human missions to Mars, point-to-point transportation through space, and AIAA and our members are really right in the middle of all of those efforts. So, I see huge potential for us as an organization to try to steer our nation and our society, our industry in the right direction and accomplish some really great things.

Iannotta: Right, why do you think AIAA membership has been declining?

Nield: So I'm happy to answer that, but if it's OK, I'd like to start maybe with some of the positive opportunities and set some context, then we can talk about some

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of the improvement areas and challenges. And so, to try to set the stage, I'm personally a big fan of Stephen Covey, author of "The Seven Habits" book, and one of his recommended habits is to begin with the end in mind. As we think about the kind of organization that AIAA is today, and what we would like it to look like in the future, it's certainly important to acknowledge that over the years we've developed an outstanding reputation for technical excellence. And going forward, I would obviously want to see us continue to enhance our technical capabilities, while at the same time working to become bolder, more innovative, more agile, and more responsive both to the needs of our members, and to the changes in the world around us. So how are we going to do that?

I think there are really four top-level goals that would be appropriate to guide our decision-making and our priorities in the years ahead and be happy to talk about any and all of those in detail. Just to quickly list them:

Number one would be advance the aerospace profession as a whole. Number two would be engage and support our members. Number three would be educate the general public. Number four would be to inspire the next generation.

And so, each of those, I think, is important for the organization and it deserves some thought in terms of what does it mean and how does that dictate the decisions we make and the directions we try to head. So I'll pause there and let you think about that, and probe if you'd like, and I'm happy to circle back around to your original question.

Iannotta:

I guess I wanted to get you talking about, you know, the membership. You know, how you can bring it up? Why it's going down? Any particulars about students or professionals or you know — I mean you could definitely recalibrate me on this, but I have a sense that, you know, among volunteers and staff there's great concern about the direction of the membership.

Nield:

Yes, and I think that's appropriate, but even though declining membership is a major challenge for AIAA right now, I don't think it's the root cause of our difficulties. I would say it's really more of a symptom, and a result of several underlying causes. Let me explain.

First, we're seeing changes in our society and the workplace, and if you look at the average time that a person stays with a single employer, it's continuing to decrease. People used to stay at one job for their entire career, but those days are long gone. The median tenure for those 65 and older is 10.3 years, but for

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those age 25 to 34, it's only 3.2 years. So, I think we need to do a better job of showing people how AIAA can be a bridge between jobs, or even a bridge between careers.

Secondly, I don't think AIAA has been very successful at retaining its student members once they graduate and become part of the workforce. So we need to convince them why they need to stick around.

Third, I'm not sure AIAA has been keeping up with all of the changes in technology that we're seeing. So, we need to offer more opportunities to learn about, or to develop policies to deal with some hot topics: like drones, and electric aircraft, **smallsats**, space traffic management, and point-to-point transportation through space.

So, if you combine all these things and try to address those, I think the membership will almost take care of itself. We need to monitor it, we need to watch it, we need to pay attention to it, but just going knocking on doors and sticking an application under people's door is not necessarily going to fix things, in my opinion.

Iannotta:

OK, so that's really interesting. So here's sort of a conundrum that I've been thinking, I've been thinking about a lot. It sounds a little negative, and of course I work here, so I don't mean it to be that way. I want us to succeed. When I look at what's happening in the aerospace world, I mean, we're really in this amazing place where we're talking about eVTOLs, and urban air mobility, and reusable rockets, and regular people, OK, wealthy ones at first in space.

So all of these great things are happening, and yet AIAA's membership numbers are declining. What's the lesson? That there could be even more success? That maybe it's just a matter of getting to a new steady state, or I don't know, maybe speak to that contradiction or conundrum if you could.

Nield:

So I think the whole paradigm is changing, and needs to change. Others in the past have said something is missing, and I think what's missing is the excitement, the engagement, the chance to make a difference. And that's something that was very obvious with NASA and the Apollo program back during the '60s, but where we are today, I think with all the new technologies, support of government policies, streamlined regulatory framework. Those of us in the aerospace community today have the opportunity to provide that same kind of environment today. So, we just need to make sure that we're communicating that, that we're reaching out and being welcoming to our

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colleagues in the industry. You know, we have like 1 percent of the number of people that are in aerospace and defense who are members of AIAA, and so that is just ridiculous. It should tell you that we're missing the boat somewhere.

Again, it's a complex issue. Work-life is changing. Companies are changing. The whole idea of a professional society needs to change along with some of these new technologies.

lannotta: OK, what do you think about AIAA's strategic plan?

Nield: I recognize the need for change. I'm a strong supporter of the governance changes. Making sure that we're keeping one eye on where we're trying to head and what our strategies are while we still are doing a good job at the day-to-day activities in the sections, the regions, and the technical committees and so forth. So that part is good, but I think there's an opportunity to be even more bold, more innovative in what we aspire to, and so that would be something that I'd certainly want to talk to our current president and the board about, and to our membership.

lannotta: OK.

Nield: Just to expand on that briefly, another book that I really resonated with was "Good to Great" by Jim Collins. And I'm not sure if you're familiar with his writings at all? He talks about what is it that differentiates the really successful companies from those that are pretty good, but they just don't really max out. He observes that the really, really good ones have very ambitious goals. He calls them BHAG's, "Big Hairy Audacious Goals," and an example of that would be JFK talking about going to the moon and returning safely to the Earth within the decade, but there are other examples in the industry too, and even if you don't always succeed with those goals, they can be very motivating and increase the spirit and the cohesiveness of the organization. And people can just put in lots of time and energy to work at these goals because they seem so right, and they seem so exciting. There's no reason why we can't do that at AIAA.

lannotta: Right, so what do you see as some of the growth areas in terms of people we could engage with AIAA, you know, whether they become members or not, I suppose. Adjacent fields maybe. If you could just talk a little bit about the substance of what you see happening in the aerospace industry and all those adjacent fields, like AI, or cybersecurity, or big data.

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Nield:

So all of those are good, and certainly examples of tangential or adjacent segments of our industry and we should pursue those because they're important areas that our workforce and our members have expertise in and are involved in. But at the same time, I don't want to leave the impression that, well, basic aerospace is as good as it can get, or that we've done all we can and so we need to start looking for other things to work on, because again there's a huge untapped resource of all these thousands and thousands of people who are doing exciting things in what I would call mainline aerospace. And so, we talked about some of the new systems that are out there, the advances in technology, and even new ways of doing business.

Some of the entrepreneurial space companies like SpaceX and Blue Origin are showing you can take those same laws of physics, those same equations for how much thrust a rocket engine can generate but the way you organize your team, and the way you lay out your development plan, it can end up costing a lot less and potentially being just as successful or more so than the way we traditionally would tackle some of those challenges. So, it's that kind of thing that I think has a huge potential in inspiring young professionals and students.

I had the opportunity to be down at Cape Canaveral for the launch of the Falcon Heavy last February in its demonstration flights. Boy that is a big rocket, 229 feet tall, that makes it about 50 feet taller than the space shuttle stack was. It weighs 3.1 million pounds, sitting on the pad and when the 27 engines light up and it leaps into the air, and you see it, you hear it, and you feel the vibrations, and then you've got to see the two side boosters come back and land in perfect formation on the landing pads, followed by the boom boom, boom boom. Four sonic booms. Remember the shuttle had two when it came back –

Iannotta:

Right.

Nield:

And then to see the picture of the, here's this red Tesla Roadster with a space-suited dummy with his hands on the steering wheel, and it's headed for the orbit of Mars. That mission I think did an outstanding job of gaining the attention and the interest of the general public, the media, and the international community in a way that an unmanned rocket launch typically does not do. And so I think there are a lot of lessons there, aside from Elon Musk and SpaceX, about how those of us in the aerospace community can gain

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some attention and some interest and some excitement from those who are outside of our community. It's possible to do that, and we've got some examples now of how to do that.

Iannotta: Right, so let's talk about revenue for a minute and kind of the philosophy that goes with concern about revenue. I mean even a not-for-profit institute like AIAA has to be concerned with that. Is revenue though – is that an accurate measure of whether or not you're serving members?

Nield: No.

Iannotta: OK, why don't you think it is?

Nield: Because to me the heart and soul of AIAA is the volunteers and what they do. And that is totally separate from the dollars. Now, you need to be in the black and balance the budget and be responsible in our stewardship, absolutely, but this is a lot different than a typical company, or most organizations in terms of how people are involved. They're not employees, they're members, but they can be major contributors, and it can be a win-win. It can be a win for the organization, it can be a win for the member, without money changing hands. At least to any significant extent.

Iannotta: Right. In your candidate statement, I thought it was really interesting how you gave some specific ideas for initiatives. How would you go about implementing those, or affecting which ones get chosen first?

Nield: Great question. Those were some of my initial thoughts about some potentially very ambitious goals. Those were my attempt at BHAGs, if you have the Big Hairy Audacious Goals that Jim Collins talks about in his book. I don't know if all of those are possible, or appropriate, or affordable, or even legal within the constructs of the organization. But, they're the kind of idea that I think has the potential to really attract the interest and attention and the engagement of not only the membership, but the press and the general public themselves. So, frankly I'd like to have a brainstorming session or two in the board. I'd love to hear from our members if they either agree or disagree with some of the things that I put on the table there, or maybe they have some better ideas of their own, and we can sort through those, have a strategic planning session, focus on this particular element of what kinds of bold ideas can the organization embrace for the near to midterm that are going to revitalize or energize the organization.

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- lannotta: Right, and, you know, you mentioning the BHAG concept. So, on membership, AIAA has a goal of growing membership by 3 percent. I don't know over what timeframe off the top of my head, but does that —
- Nield: Too easy.
- lannotta: Yeah, you saw where I was going. [laughter]
- Nield: We need to at least be talking about doubling in the next few years. And even that is not where we need to be long term, but I don't know how long it's going to take to build some of the relationships with universities, with companies, with the government agencies that can result in frankly a trust between AIAA and those organizations that can see this as a win-win. My gut feel is that if we have a good story and go sit down with, for example, government officials and corporate ones too, and say, you know, we know money is tight. We know it's a challenge to hire and retain good, talented employees. AIAA is all about education, training, self-improvement, lifelong learning, and here's some of the ideas we have for how we can make that happen. And all you have to do as the head of your office, government, or the head of your division in the company, is support that type of activity. Say, "Employees, we think what AIAA, and maybe other special societies, is doing is a good thing, and we encourage you to participate. We'll give you time off to do that, or we'll give you a gold star on your next performance review if you've been to conferences, present a paper, or get involved in a local session." To me, those are examples of win-win types of activities that we haven't really been doing as much of lately compared to what I observed earlier in my career when it was just expected that the best employees would of course go on to participate in a professional society, because their bosses encouraged them to do so, and that's just what you did as a young engineer. You don't see that as much anymore.
- lannotta: Interesting. On the strategic plan, some of the ideas for what AIAA could do more effectively. Are you familiar with this idea of, you know, being the leader in curated aerospace content?
- Nield: At the top level.
- lannotta: What's your thinking on that? I mean I guess, you know, what does it mean and how big a difference could it make in your view?
- Nield: Sounds like a great concept at least in theory, and I'm certainly not an expert in that specific field, but the other things that we need to think about that are

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happening at the same time is the whole digital revolution and why do I even need a journal or that type of a process, because it's so slow and potentially so extensive that at least if we really want to democratize the information and expedite the learning that goes along with it. So to set ourselves up as, as the jurors or the evaluators of, of new discoveries and new ideas, I think that's great and certainly as we mentioned before, AIAA has the great reputation for being outstanding in terms of technical things. But we need to be careful that our historic processes, which can take a long time, can be slow, cannot be available to the broad international community, at least quickly, may not be the way of the future. So there's this intention there that we need to work through to make sure we're headed in the right direction.

lannotta: OK, I want to jump around a little bit on you. I looked back at your info you sent and the quote you have there. Is that one of your sayings, or does that come from a particular person?

Nield: So actually that comes from, it's a derivative of Lewis Carroll and "Alice in Wonderland," but it's been used by Yogi Berra and others in slightly different forms. And the bottom line is, if you really want to be successful and achieve great things, either as an individual or as an organization, you need to get some serious thoughts of where you are trying to go. What are you trying to do? And then lay out how you're going to get there. And then just begin and keep working as hard as you can, being ready to adapt the plan as you encounter obstacles or changing circumstances in the environment around you. Today you see a lot of people, a lot of organizations who just seem to be floating by and they don't give any thought to exactly where they want to end up, and as a result you're going to have at the very best some mixed results in the end.

lannotta: What I kind of took from it maybe, is that once you know what your goal is, that's the hard part in that this kind of counsels you that, you know, make a decision and you're going to get there, maybe don't over plan. I don't know.

Nield: So that could be one interpretation, but I think I was focused on the flip of that really, which is that if you don't plan, then it sort of doesn't matter what you do because you don't have to worry about missing your target, because you didn't have a target to start with.

lannotta: Interesting. Let's see — let me go back to your candidate statement again. Oh yeah, this reminded me. A couple places in our conversation you referenced technology and I see the word, being more agile, or the phrase to be more agile in your candidate statement. The AIAA should be more agile. So you mean like

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embracing information technology? What did you mean more specifically? How can we be more agile?

Nield: As I talk with and listen to the leaders of other organizations today in aerospace setting and in other settings, what I see is a common concern that we really as a society, but especially in the government dealing with long-lived organizations, the decision velocity is really slow. You could have a great idea, but by the time you take it through all the working groups and staff for coordination and it goes up a number of different levels, then you could be out of date and it doesn't have to be that way today. There's pros and cons with how quickly you decide, but I think that more and more people are recognizing that, at least for many things, it's got advantages to make a relatively quick decision and if you find out later that was the wrong decision, you can change your mind and still have made more progress than if you sat around and talked about it or analyzed it for an extremely long period.

Iannotta: Right.

Nield: I heard Jeff Bezos give a talk to a group of current and retired military officers recently, and that was one of his key observations. He was asked for his advice to the military on what they could do to be more agile and more innovative in today's world, and what he observed was that in the military you've got the generals who are spending almost all of their time involved in making very significant, very important, very expensive decisions, and that's how it should be because they are at the top of the organization. But, if you go down several rungs on the ladder and observe the lieutenants and the captains and the majors, they're sitting down in the trenches and they're looking up at their boss and they observe this very involved, very thorough process for making a decision, and they go "Well, if the top guy does that, I guess I should do that too." And so they apply that same lengthy, detailed decision-making process to those not so important decisions, and as a result, the whole organization almost grinds to a halt. So, the key is to decide which things are really important that are worth spending extra time and effort doing analysis on, and what things can you just work all by yourself. Or have a group of five meet in the office, and you talk about it for five minutes, and you come up with the best answer and go do it. And if it's wrong, then you come back and you have another meeting. In the meantime, you've made some progress.

That's what I mean by being agile. It's being able to make decisions more quickly and to adjust our direction more quickly. Again, by its very nature I think that's going to be a challenge for an organization like AIAA, but if we can address some

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of these big issues like declining membership without having a five-year plan before we even get started, then we're going to be better off. Let's try some things, and if they don't work, we'll change our plan.

Iannotta: Right, you sound like a, a media outlet reaching out; that's certainly how it works for a lot of, lot of companies, where you're never going to have perfect data, so you have to try something and see if the market accepts it.

Nield: Exactly.

Iannotta: Of course, it's — you know, when lives aren't at stake that's maybe the kind of thing that can be done.

Nield: Absolutely.

Iannotta: Anyway, so what about, how is your, I see you have an MBA from George Washington University. How does that, what does that bring to the table for you?

Nield: I had been an engineer my entire career. And gotten through the bachelor's and master's and Ph.D. and really enjoyed that, doing good technical work. But as I got higher in the organizational hierarchy, I realized that there are a lot of people who either don't understand or don't appreciate or are not interested in just the technical. They're worried about the budgets and the people and the impact on the local community, and the environmental impact statements, and all these other things that are not necessarily things that a typical engineer would be familiar with or would appreciate. It really was an eye-opening experience for me to be in the classroom with some of these other nontechnical people that have important jobs, and important roles, important leadership positions but came at it from a completely different perspective than an engineer like myself would. So, I feel like I've seen how some of those people think and am better able to appreciate all of the nontechnical aspects of decisions and plans and organizational leadership.

Iannotta: Well I don't know what the percent would be, but I think a good percent of engineers make the kind of transition you've made in your career towards management, don't they?

Nield: Well, many do, but certainly in some organizations what you find happening is, I won't say it's necessarily a Peter Principle, but somebody who's a really good engineer will be selected as the boss, and that person may or may not be a good

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leader, or a good manager, but they were darn good at solving the equations or filling out spreadsheets. And so, if you look at the environment, you say the way I need to get a raise, or the way I need to get the next promotion is to bid on that office manager job, then I guess I'll do it. But that may not be the kind of thing that the person enjoys or is gifted to be able to do successfully. So, I think we need to be careful that we have the right kind of people in the right kind of positions, and certainly having more knowledgeable, more experienced people near the top of your organization is a good thing, but that doesn't mean they're necessarily the same people that are running the organization. Some organizations have developed dual career tracks, if you will, so that you can be say a chief engineer, or special adviser or something like that to the CEO or the head of the organization, and that allows maybe more respect and pay and grade level than you could get as a regular engineer without having the broader perspective that might be required to actually run an organization.

Iannotta:

Right, yeah I've noticed that a number of companies have programs like that. It does seem smart because you don't have the opportunity cost then of moving somebody who was so brilliant and hoping that there's somebody ready to fill that role.

Nield:

Absolutely. And another slightly different example of the same thing that typically the military has had the philosophy of "up or out." You have to keep being promoted by a certain number of years up or else you get separated from the service. If you're someone who happens to be, say, an Air Force pilot, or a naval aviator, and you would just love to do that for the rest of your career, that's normally not an option by the time that you get to be lieutenant colonel and colonel and so forth, they want you flying a desk in the Pentagon, not out there in your F-16.

Iannotta:

Right, yeah. Good, well at this point I'm going to ask if there's anything that you're surprised I didn't ask you or is there anything that you haven't had an opportunity to touch on as I've asked you questions?

Nield:

I think you've done a good job of covering the waterfront. You mentioned in general terms some of my ideas and just to circle back to those, some of the thoughts I have had included either sponsoring, or co-sponsoring, or administrating a major new aerospace prize. I think prizes are something that have been inextricably linked to advances in aerospace right from the start. Going back to Louis Blériot crossing the English Channel in 1909. Lindbergh flying the Atlantic in 1927. Burt Rutan and SpaceShipOne capturing the Ansari X Prize in 2004. Even, you know, going back to the late 1920s, Daniel Guggenheim

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made about two and a half million dollars in aviation-related grants and prizes available through the Daniel Guggenheim Fund for the Promotion of Aeronautics. That would be worth about a hundred million dollars today. It makes me wonder, could AIAA be engaged in coming up with the prize? Either funding some of it ourselves, or getting corporate sponsors, or even talking to some of the wealthy space cadets out in Silicon Valley and see if they'd be interested in working with AIAA to come up with something that would really move the needle in terms of advancing the state of the art, and pushing the envelope in terms of aerospace achievement.

Iannotta: Right, well I thought the STEM idea of, you know, finding ways to engage teachers involved with STEM. That's interesting too.

Nield: Right, so I mentioned the very ambitious idea is: Let's bring back Teacher in Space, that we talked about when NASA launched Christa McAuliffe on the shuttle, but I think now we've got Virgin Galactic and Blue Origin ready to start their regular suborbital flights in the next 12, 18 months. Once they get going, maybe you bring back Teacher in Space, but instead of taking one teacher all the way to orbit, you take dozens of teachers ever year on a suborbital flight, or at least make available space-related training like high-performance-aircraft rides or altitude chambers, or something like that, and wow. To allow them to have that experience and then go back to their classroom and tell the story of this is what it was like, I just get goosebumps thinking about what effect that could have on students today.

An easier first step might be, hey, let's expand our Educator Associate Program and have it be a goal that we sign up at least one teacher in every school. There's like 37,000 public and private secondary schools in the U.S. What if we just have one person in every school that's on the mailing list, that gets the emails, that sees the cool pictures from Hubble and that has all the latest information on when the space station is going to fly overhead. When the next launch is. That could really bring some of that next generation into the tent in terms of: This is exciting stuff going on; I want to be a part of that.

Iannotta: Right, so you've mentioned a lot of ideas. In a two-year term for president, what's the strategy? Find one idea and see if you can achieve that? Or just toss out a bunch of ideas?

Nield: You can't do everything all at once. I get it, but at the same time I'd rather have a lot of people working on a lot of ideas, and I don't have to be in the middle at all. If people think, "Hey that sounds like a great thing," then we can delegate,

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we can assign lead responsibilities and we can go. And we can try 10 different ideas, and maybe five of them will fail, but if five of them succeed, that's five more than we had yesterday.

lannotta: Right. In your vision, a president — an AIAA president — are you mainly interfacing with the membership, the membership we'd like to have, or are you, you know, interfacing with the AIAA staff and giving ideas?

Nield: So, all of the above. In my most recent position as the associate administrator for commercial space transportation at the FAA, I really had a dual role. First, I was overseeing the activities within the organization, and so ultimately I was responsible for the decisions made on licenses granted and safety approvals given, and all those kinds of things. But at the same time, I felt like one of the most important parts of my job was to up and out communications, so speaking at conferences, meeting with congressional staffers, and taking interview requests from the press. All those kinds of things, because it's important for an organization to tell their story if you want to be recognized, acknowledged, and supported by our stakeholders.

lannotta: Right.

Nield: So I see it as the same type of situations for AIAA. The senior pay staff and volunteers need to pay attention to the up and out communication while still making sure that what's going on inside the organization is running smoothly.

lannotta: OK, well this has been a great rundown. I appreciate it.

Nield: Well thank you. I enjoyed talking with you, and I'll get you the updates for the sidebar notable section as soon as I can, and in the meantime if you have any additional questions, feel free to email me or give me a call.