FNSB Economic Development Commission
Tuesday, September 23rd, 2014, 3:30 p.m.
Mayor's Salcha Conference Room

Meeting Minutes

FNSB Economic Development Commission Work Session
Verbatim Transcript of Work Session

September 23, 2014

This meeting was called to order at 3:30 p.m.

Commissioners in Attendance:

Mayor Luke Hopkins
Mayor Bryce Ward
Commissioner Kelly Brooks
Commissioner Russ Talvi
Commissioner Paul Robinson
Assemblymember Kathryn Dodge
Assemblymember Van Lawrence

Commissioners Excused:

Mayor John Eberhart
Commissioner Schlutt

Citizens in Attendance
Keith Cunningham, PhD, Research Professor, University of Alaska Fairbanks
Michael Stephen, Surveyor, Tanana Chiefs Conference

Staff Present
Barbara Johnson, Special Assistant, Fairbanks North Star Borough

Chair's Comments:

Mayor Hopkins - Thank you, everybody, for showing up in the -- following the very light snow, or at least in town it was a very light snow.

So I'd like to call the Fairbanks North Star Borough Economic Development Commission to order on July 22nd [sic] at approximately 3:30. And -- sorry, I don't know what I said. September 23rd at 3:30. So.....

Assemblymember Dodge - We'd like July 22nd.

Mayor Hopkins - Yeah, that'd be nice.

Assemblymember Dodge - Could we vote? I'll move.

Barbara Johnson - Yes.

Mayor Hopkins - Sorry about the error. So, Barb, would you call the role, please.

Barbara Johnson - Sure. Commissioner Brooks.

Commissioner Brooks - Here.

Barbara Johnson - And Mayor Ward is actually on the way. Commissioner Robinson.

Commissioner Robinson - Here.

Barbara Johnson - Commissioner Talvi.

Commissioner Talvi - Here.

Barbara Johnson - Assemblymember Dodge.

Assemblymember Dodge - Here.

Barbara Johnson - Assemblymember Lawrence.

Assemblymember Lawrence - Here.

Barbara Johnson - And Mayor Hopkins.

Mayor Hopkins - Here. Would you call the other ones just to ensure that we've.....

Barbara Johnson - Sure. Mayor Eberhart is excused and Commissioner Schlutt is excused.

Mayor Hopkins - Okay. We have a quorum. And for all of us around the table right now, we have our newest commission member, Kelly Brooks. Kelly, if you'd like to introduce yourself.

Commissioner Brooks - Sure, sure. Kelly Brooks, I'm the vice president of finance right over across the street at Doyon, Limited. I have actually been there for 14 years, always in a financial capacity, starting off as a financial analyst and working my way up. Most of what I do right now is budgeting, forecasting, strategic planning; just looking out, seeing where the company is going; involved in the growth and how we're going to grow. And so that's what I do.

So I've lived in Fairbanks for 14 years and my husband's been here a little bit longer, but we're here for a while, so don't have any plans on moving any time soon.

Mayor Hopkins - All right. Thank you for joining us as a commission member. And as I was saying to you earlier, this is all open meetings and a public process. And so with that, we have guests and we have others sitting around the table that are not commissioners. If you'd just introduce yourself for the record at this time.

Keith Cunningham - I'm Keith Cunningham, a research professor at the university.

Mayor Hopkins - Thank you.

Michael Stephen - Michael Stephen, lead surveyor over at Tanana Chiefs Conference.

Mayor Hopkins - Thank you.

Cindy Wagner - I'm Cindy Wagner. I'm the manager (inaudible).

Mayor Hopkins - Okay. Thank you very much (inaudible). So.....

Assemblymember Dodge - Would you like us to introduce ourselves so that our new commissioner knows who the heck we are.

Mayor Hopkins - Sure. Okay. Yeah, thank you, Kathryn.

Assemblymember Dodge - Yeah, she probably figured it out when we answered. I'm Kathryn Dodge. I'm on the assembly. Pleased to meet you. I work at the university also in Economic Health.....

Commissioner Brooks - Okay.

Assemblymember Dodge - .....and Small Business Development.

Commissioner Brooks - Okay. Very good.

Assemblymember Lawrence - (Indiscernible)

Mayor Hopkins - You know Barb.

Commissioner Brooks - Yes, I do.

Mayor Hopkins - And you're stuck with me.

Commissioner Brooks - Yep, yep.

Commissioner Talvi - Russ Talvi, Small Business Development Center.

Commissioner Brooks - Okay.

Assemblymember Lawrence - And Van Lawrence. I'm on the assembly.

Commissioner Brooks - Okay.

Assemblymember Lawrence - And I'm an attorney.

Commissioner Brooks - Oh, okay.

Assemblymember Dodge - We like him anyway.

Commissioner Brooks - Right.

Assemblymember Lawrence - Somebody's got to do it.

Assemblymember Dodge - Somebody's got to do it.

Commissioner Brooks - Right.

Mayor Hopkins - So if you start hearing questions asked of you and it sounds like you're in court, just.....

Commissioner Brooks - Okay.

(Multiple voices speaking simultaneously)

Mayor Hopkins - So with that, we -- as part of our public process, we open up our meeting for Citizens Comments and if there are any citizens at this time, this is your time to come forward and you'll have three minutes to make any comments on our commission meeting. And hearing none and seeing none, we close that section. And I look for the approval of the Consent Agenda, which approves our agenda and the minutes. Look for a motion.

Commissioner Robinson - So moved.

Mayor Hopkins - Thank you, Paul.

Commissioner Talvi - Second.

Mayor Hopkins - It's been moved and seconded for the approval of those. Are there any changes or corrections to any of these items? I know we have 32 pages of minutes, but I always think of Assemblymember Sattley who says that when he reads about the same amount of pages of minutes from FMATS and their accuracy and the clarity, he's very pleased that he can remember what he did and why he said it, or at least what he said, so.....

Assemblymember Dodge - And if he can't, he's got a reminder.

Mayor Hopkins - Yeah, that's right. It's on the record. So just let the record show that Mayor Ward joined us here as a commission member. And, mayor, we're on the approval of the Consent Agenda, which is the agenda before you, and the minutes from July 22nd. I'll give you time to look at the agenda, which you may have already done. If you're ready to vote on that. Okay. Is there any objection to the agenda and the minutes that are before you? Hearing none, we have the Consent Agenda approved, which is the agenda before us.

So our first item of New Business is the Economic Development Commission Resolution 2014-5, the Resolution of the Fairbanks North Star Borough Economic Development Commission Accepting Additional State Funding for the Alaska Regional Development Organization for the State Fiscal Year FY-2014. And in your packet is Resolution 2014-05 and we look for discussion and action on this, look for a motion to put this before us.

Commissioner Robinson - So moved.

Mayor Hopkins - Thank you.

Assemblymember Lawrence - Second.

Mayor Hopkins - It's been moved by Paul and seconded by Van Lawrence. So, Barb, if you wanted to give just a brief discussion on this, or a staff report, so to speak.

Barbara Johnson - Sure. Thank you. Department of Commerce, Community, and

Economic Development had additional grant funds available and distributed it to the ARDORs in the amount of $12,901.66 per ARDOR. So that funding needs to be accepted through resolution and that's what's before you today, and that's for FY-14. And the actual work period has been extended out to December of 2014 for that.

Mayor Hopkins - Okay. With that overview -- quick overview on that, in short, as we heard, a small slice of money was made available. And, Barb, how does it have to get used? Is that for salary offset or.....

Barbara Johnson - It is for salary offset, that's correct.

Mayor Hopkins - Okay. Questions on it? Discussion? Okay. Mayor Ward?

Mayor Ward - Actually, I guess the structure of how that position is funded, is there like an operating budget that goes with that as well or does that come from your -- the mayor's budget?

Mayor Hopkins - Yeah, it's in the mayor's budget, so when the ARDOR grant is accepted by the assembly, then it offsets salary for Barb's position.

Assemblymember Dodge - It's like a one-to-one match.

Mayor Hopkins - Yep, yeah.

Mayor Ward - So that leaves -- that would open up another $12,000 in your budget for other economic development.....

Mayor Hopkins - Right.

Mayor Ward - .....for other purposes? Okay. Yeah, just wanted to make sure that was clear.

Mayor Hopkins - Okay. Any further questions or discussion points? Seeing none, we're ready to vote. Barb, would you call the roll on that?

Barbara Johnson - Sure. Commissioner Brooks.

Commissioner Brooks - Yes.

Barbara Johnson - Mayor Ward.

Mayor Ward - Yes.

Barbara Johnson - Commissioner Robinson.

Commissioner Robinson - Yes.

Barbara Johnson - Commissioner Talvi.

Commissioner Talvi - Yes.

Barbara Johnson - Assemblymember Dodge.

Assemblymember Dodge - Yes.

Barbara Johnson - Assemblymember Lawrence?

Assemblymember Lawrence - Yes.

Barbara Johnson - And Mayor Hopkins.

Mayor Hopkins - Yes.

Barbara Johnson - Okay.

Mayor Hopkins - Thank you very much for that. This will probably -- this should be -- the ink should dry on this when we bring it before the assembly as another item for their -- this Thursday's assembly meeting where they'll be actually taking an ordinance to accept the funding itself from the state.

So with that, we move on to the next resolution and that's Resolution 2014-06, a Resolution of the Fairbanks North Star Borough Economic Development Commission approving the Alaska Regional Development Organization Work Plan for the state fiscal year FY-2015. And that resolution is before you and there's some backup documentation with it. And so for our discussion, could somebody please move that -- this resolution?

Assemblymember Lawrence - I move that we adopt EDC Resolution No. 2014-06.

Mayor Hopkins - Okay. Thank you.

Commissioner Talvi - Seconded.

Mayor Hopkins - It's been moved and seconded. Thank you for that, Van and Russ. Discussion on this? So, Barb, you want to go ahead and.....

Barbara Johnson - In past years, DCCED has just left everything kind of as a bulk dollar amount and we've been allowed to spend it however we wanted. And they had some ARDORs where they felt they wanted them to focus more on doing actual projects, too, and we've always been project-oriented. So that hasn't been an issue at all. They split it where it's 50/50 between administrative- and project-based and originally they had said, you know, you can only have one project, but they gave more flexibility with that and said that we could have up to three.

And so what we've tried to do -- this actually explains more work than we can probably accomplish, but it leaves it really, really broad and so we picked Section 331, which is the Joint Partnerships where we can continue working on the Coal Ash Study, and all the other projects under Section 331. And then focused on unmanned aircraft systems, we are having a booth again with DCCED and working with the university and Department of Military and Veterans Affairs. And then we are working really, really heavily on continuing economic development of unmanned aircraft systems.

And looking at this ARDOR work plan, too, this doesn't mean these are the only projects that we're going to work on. We just had to substantiate ones to provide to DCCED and will have to report on these. So other projects will be happening that won't be listed on this. This is just how we're allocating the funding.

Mayor Hopkins - Okay. So open up for discussions? Questions?

Commissioner Robinson - It says there's a local match that we have to come up with? Is.....

Mayor Hopkins - Yes.

Commissioner Robinson - And that -- is that from the borough or.....

Mayor Hopkins - Yes.

Commissioner Robinson - So it just comes from.....

Mayor Hopkins - Uh-huh. Yep. So that's the other part of the funding for the grant that the assembly, when they adopted the new budget, that's the salary base of the.....

Commissioner Robinson - Yep.

Assemblymember Dodge - Was it slightly less than what you'll need? So is it minor, mod, or is it within region?

Barbara Johnson - I.....

Assemblymember Dodge - It seems like we usually adopt like 65,000 or seventy, so.....

Mayor Hopkins - Right.

Assemblymember Dodge - It looks like you'll have to.....

Barbara Johnson - Yeah, well, just a little bit more.

Assemblymember Dodge - .....come back through again?

Barbara Johnson - Yep, yep.

Mayor Hopkins - Let's see, so -- yeah, 62 last year, so 70 this year.

Barbara Johnson - Yep. Yep.

Assemblymember Dodge - So, yeah, it's bumped up a little bit.

Barbara Johnson - Yeah.

Assemblymember Dodge - It's a good reason to have to go.....

Barbara Johnson - It is.

Mayor Hopkins - Yeah.

Assemblymember Dodge - .....back for.....

Mayor Hopkins - Yep, yep.

Assemblymember Dodge - .....additional approval.

Barbara Johnson - Yeah.

Mayor Hopkins - Okay.

Assemblymember Lawrence - So let me.....

Mayor Hopkins - Van? Uh-huh.

Assemblymember Lawrence - So these two fund -- is the -- all right. So the first resolution dealt with the $12,000 -- or $13 -- $12,900 surplus or whatever money left over that -- from last year.

Mayor Hopkins - Right, from the FY-2014.....

Assemblymember Lawrence - 2014.

Mayor Hopkins - .....right, that they're letting us spend until the end of the calendar year.

Assemblymember Dodge - Right.

Assemblymember Lawrence - Okay.

Assemblymember Dodge - Yep.

Assemblymember Lawrence - And then this resolution has to do with this year's funding. Same source, pretty much the same purpose.

Assemblymember Dodge - Yep.

Mayor Hopkins - Just the next fiscal year, right, right. And they put more money in there.

Assemblymember Dodge - Yeah. Or less to.....

Mayor Hopkins - Yeah, less to divide up, I think is what happened.

Assemblymember Dodge - Right, right.

Mayor Hopkins - I think a couple of ARDOR.....

Assemblymember Dodge - Fewer -- fewer advisors.

Mayor Hopkins - One ARDOR went away or something? Yeah, yeah.

Assemblymember Dodge - Two.

Mayor Hopkins - Yeah, okay.

Commissioner Talvi - Is that why the incremental increase was in FY-2014?

Assemblymember Dodge - Yeah.

Commissioner Talvi - Because there were some non-participating ARDORs or.....

Mayor Hopkins - Because they didn't have any of the money during FY-2014 until legislation was passed and they couldn't wait, so they had to basically dissolve their activities.

Commissioner Talvi - Yeah.

Mayor Hopkins - They had to let people go. Let the, you know, ARDOR personnel go, or the recipients of that. I think one was Nome, I think. I don't know whether.....

Assemblymember Dodge - No.

Mayor Hopkins - No?

Assemblymember Dodge - No. Unh-unh.

Mayor Hopkins - Okay.

Assemblymember Dodge - But it was Interior Rivers and Bethel.

Mayor Hopkins - All right. Thank you, Kathryn. Thanks for that. Okay.

Assemblymember Dodge - And they are working with Bethel to try to get that reconstituted, which is why this is not as high as that one.

Mayor Hopkins - Okay.

Assemblymember Dodge - The only question -- oh, excuse me. Section 331.....

Barbara Johnson - Uh-huh.

Assemblymember Dodge - .....so I understand that's been the army's kind of not getting authorization from DC, so they're having a little bit more difficulty engaging like the Coal Ash's.....

Barbara Johnson - Actually, there is legislation that is before congress right now. I just got an e-mail from Ivan, I think two days ago, and he sent it to me. That would provide additional authority.

Assemblymember Dodge - Great.

Barbara Johnson - So -- yeah, so they've been working really hard on that. And we're going to focus back on Section 331 again and keep -- but keep the ball moving with unmanned aircraft, which you know how that -- it takes up a lot of time.

Assemblymember Dodge - Uh-huh.

Mayor Hopkins - So Section 331, of course, you know, Kathryn as you say, the army is very interested in moving some of the service agreements, intergovernmental service agreements forward and actually get something done. There are some discussions that a few contracts have been arranged for custodial work or something that's pretty minor. But the air force -- or our air force base, things haven't started with that. I mean, we've had discussions

with one representative which is pretty tough to move a lot with one individual who takes that information back to the base and disperses it and then comes back again.

The army has a much different structure. And so we've -- I think that as we move forward with it, we'll probably see the army actually have actions first which is okay with us. We're number 4 on the list nationally, therefore Fort Wainwright is recognized as we're fourth in line to get our service agreements considered in a straightforward manner instead of just saying, you know, good work and set it on a desk.

Assemblymember Dodge - That's great. Thank you.

Mayor Hopkins - Yep.

Assemblymember Dodge - And it looks like this Coal Ash is one of the areas that you've worked most?

Mayor Hopkins - Yeah, we've had.....

Assemblymember Dodge - It's an immediate problem and an immediate opportunity basically.

Mayor Hopkins - In about three years it will be a real problem because of the landfill areas that the army and air force use are expected to be filled and then in our community we keep just taking pieces of land and either filling on top of them or the one action currently for -- that's active for Aurora Energy is excavating peat and then filling the holes with coal ash out off of the -- on the north side of the Johansen.

Assemblymember Dodge - Thank you.

Mayor Hopkins - So over by the Brown Jug and Holiday Inn which.....

Assemblymember Dodge - Oh, is that.....

Mayor Hopkins - Yeah. Where that work goes on.

Assemblymember Dodge - We saw it, yeah, where they had the big pool at one point this year.

Mayor Hopkins - Yeah, yeah.

Assemblymember Dodge - Really big pool.

Mayor Hopkins - Flooding or lack of fast drainage, right? Yeah. Yep. Okay. Further discussions on this resolution? We've had good questions on it. Seeing none, Barb, would you please call the vote on this.

Barbara Johnson - Sure. Commissioner Brooks.

Commissioner Brooks - Yes.

Barbara Johnson - Mayor Ward.

Mayor Ward - Yes.

Barbara Johnson - Commissioner Robinson.

Commissioner Robinson - Yes.

Barbara Johnson - Commissioner Talvi.

Commissioner Talvi - Yes.

Barbara Johnson - Assemblymember Dodge.

Assemblymember Dodge - Yes.

Barbara Johnson - Assemblymember Lawrence.

Assemblymember Lawrence - Yes.

Barbara Johnson - Mayor Hopkins?

Mayor Hopkins - Yes. Thank you very much. We now move on to -- there's a presentation package before us and the next new business is the business development of UAS, unmanned aerial systems, pipeline monitoring, and cadastral survey presentation by the University of Alaska Fairbanks and, as we heard, we have Mike Stephen also here and -- a surveyor with boots on the ground. Is that correct?

Michael Stephen - That's right.

Mayor Hopkins - All right. So -- but the presenter is Keith Cunningham and, Keith, thank you very much for being here. There's a hard copy presentation, and I'll be glad to give you the floor and you're welcome to give the introduction and.....

Keith Cunningham - All right.

Mayor Hopkins - .....Barb is probably running the PowerPoint.

Keith Cunningham - Lights. I'm a research professor at the university and I wear lots of hats, and where I'm employed, where I draw my pay is the International Arctic Research Center and we study things like permafrost and sea ice. However, my office is over at the unmanned aircraft building from Industrial and there I provide a lot of support when it comes to processing the data, the analysis of the data, and all that back-end stuff that may not be as sexy as flying the little aircraft.

I also do a lot of work with the university's Office of Intellectual Property and Commercialization, primarily related to assisting other inventors at the university. These inventors could be staff or faculty, and I'm going to showcase some of their work today.

And the common thread linking everything that I do is really what we call remote sensing, meaning we measure things from afar. Sometimes we measure things within the air. We call that C2 sensing. But I specialize in things like cameras and lasers and radar.

So we've put those cameras and lasers and radar up on satellites, we've put them on

airplanes, and now we're putting them on drones. And, by the way, I call them drones. UAS is too much of a mouthful, especially when you're writing a proposal and you've got five sentences in one paragraph and every sentence has UAS in it. You try wordsmithing around that; it's complicated. It's like calling all the vehicles in the parking lot horseless carriages.

So since I'm wearing so many different hats, I've got a couple of things I wanted to share with you that are kind of (indiscernible) interesting to the UAF inventors community and so this is more opinion than a visual statement from the university. So these observations I'm happy to share with you. And perhaps you can help us out on some of the observations.

Assemblymember Dodge - What, you're going to attach us to the drawing (indiscernible - simultaneous speech).

Keith Cunningham - Well, that brings up an interesting thing. I was interviewed a couple of weeks ago. Somebody put this on their blog. It said, Dr. Cunningham observed that whenever a noun is changed to a verb, meaning a drone and to be droned.....

Assemblymember Dodge - That one has been a verb for a long time.

(Multiple voices speaking simultaneously)

Keith Cunningham - Well, now, there's been a shift or a pivot in the market space and that's what this slide is about is this market space that we are aware of right now and well aware of the military super-expensive, to be droned.....

(Multiple voices speaking simultaneously)

Keith Cunningham - And the operating cost for a device like that could be $20,000 an hour. Just a few years ago, it was $60,000 an hour to operate one of these things.

Assemblymember Dodge - Wow. But those are the big guys, right?

Keith Cunningham - Those are the big guys, yeah.

Assemblymember Dodge - The ones, 727 size.

Keith Cunningham - Yeah, flying at 60,000 foot for 20 or 30 hours. Basically, the pilots on the ground have to work in shifts. And then you get the guy at the other side of the market. All right. He built it in his garage for $3,000 in parts and he's just playing around. That's the recreational market, so.....

Assemblymember Dodge - Just droning around.

Keith Cunningham - Yeah. So you've got two markets right now in the economy of the United States and you're seeing a third market now beginning to evolve elsewhere in the world and hopefully involving here in Fairbanks, and that's that area, the white space with the question mark in the middle. What is that middle market space? So this presentation is, really, what is that middle market?

In other words, if you were, as the borough, focusing on economic development, you can focus on the military; it creates a lot of jobs. You could not make a lot of jobs by focusing on the

recreational piece of the market. But somewhere in the middle, right now, the projects I'm going to share with you, they're all science and research related, and so that's a market that we're understanding right now. And this summer I've been super busy just writing proposals, and my score rate on these proposals is quite high. I mean, we're very good at getting the business when it comes to science and research related to that middle market, but that's an interesting market in its own space.

So why -- one of the things I'm going to share with you, when I get in here is, it turns out a lot of the technology used by the military stuff maybe aren't applicable for the commercial middle market. A lot of the technologies at the other, the other market, you know, if you're building a toy for just a few thousand dollars, you're not going to have a $20,000 camera on it. You're not going to do science and research.

So we don't know what the market is yet for drones. It's kind of like if you go back to 1982 and ask somebody what you would do with a computer, uhhh, I'd play a game maybe? Do word processing? I mean, that's right when the desktop publishing business came about. So you had a blip in the business related to computers, related to that, and then another blip related to something else where somebody invented a new way of using that computer and you couldn't have forecast all the different ways computers are being used today. So your little cell phone, basically, it's got more processing power than a computer from the 1980s.

We're going to focus a lot of our research at the university on this science and research market. And, again, we don't know exactly what that means, but paralleled with this is the FAA has part of their law that congress passed and it's something called Section 333 and this allows the FAA to basically permit certain specific markets to begin using drones commercially in the United States. And, for instance, as soon as that Modernization Reform Act of 2012 was passed by congress, the first people to line up at the door of the FAA was the Motion Picture Association of America because they wanted to use drones to take footage to be used in movies. And if you think about this for a second, yeah, okay, the drone - verb - to take a drone nowadays, okay, means little robots flying above that's taking a picture of you and a girlfriend on the beach or at a wedding. That's a dronee. Okay. It's still illegal, though, for a film company, like a Disney, to go out and use a drone, though, to capture imagery and use it in a commercial way. That's illegal right now.

But this special section 333 will probably be one of the first rules that the FAA grants to the U.S. civilian market. So already there are companies lined up in Hollywood, Las Vegas, and San Francisco that are trying to fill this market niche. And where are they getting their experience? They're leaving the country to go fly in other places like Europe. So even though it's illegal here in this country, you leave this country to go learn how to do this and you bring the technology back.

Assemblymember Dodge - So do you mean if I ask, Keith, what are the rules in Europe or how.....

Keith Cunningham - Every country is a little bit different. Every country manages airspace different. I can go to Australia and fly. I can go to Canada tomorrow and with just some simple paperwork can fly. So every country is just different. We're a very -- when it comes to aviation, we're a very risk-adverse country, when it comes to aviation safety, and that's the concern is risk to aviation.

Precision agriculture will be another one of these things that, real quickly, we think the

FAA is going to let the farmer with the section of land a square mile have his own little drone to go out and check the soybeans or, you know -- a little anecdote here, one of the interesting booths at the AUVSI had the "cowcopter." All right. The market for this was the cowboy, or the rancher, who, instead of having to ride the four-wheeler or horse around to check the fence for cows, he could fly it now with the drone and every little cowcopter had a custom painted cow cowling with cow eyes. You know, as business people, we're trying to figure out what these issues are going to be.

If you go to Japan, they've been flying drones for agriculture there for 20 years and there they raise rise on little pads, paddies, that are just an acre or so in size, so it's the perfect application for a drone to spray it for pesticides or add fertilizer. It's not like flying a square mile in Kansas with these things.

When these rules are figured out by the FAA on how to incorporate civilian applications into our national airspace system, you're just going to see an explosion of applications. There's no way to predict how this stuff is going to get used. I mean, the obvious things are law enforcement, public safety, firefighting, things like that. But the Amazon thing that was on the news and 60 Minutes back the end of November, first of December, you know, I viewed it as a blatant publicity stunt, but it did a lot to energize the understanding of the public in terms of their imagination about this market. Where is this thing really heading? You know, the little aircraft that Amazon was showing off, guess what? The battery is only good for 20 minutes. All right. So if it's going to fly from a distribution facility to a house, it can go.....

Mayor Ward - That's a 10-minute radius.

Keith Cunningham - Yeah. You've got all these little itty-bitty spinning blades and this is going to land a package on somebody's front door? Okay. So anyway, next slide.

What are these middle market issues? Well, you know, my job at the university is to help promote this technology and apply this technology to be used in novel ways. And so a lot of these grants that I am proposing and winning is really to do things with drones that somebody hasn't thought of doing before. And so often we have to figure out how do we communicate the technology to an audience. Okay. In the case of a pipeline project, when we mentioned drones to Alyeska Pipeline, their aviation safety people were all over this. No, no, no, no. And I'm saying, we can do this safely. So we have to manage the messaging pretty well.

Also when it comes to the people who are doing the invention and the innovation with this market space, there are certain issues that you, as a community, need to be aware of. And it really boils down to how do we support these innovators? And so of the faculty and staff at the university who are starting businesses, one of the things that we've really -- we're still figuring out -- we've been doing -- working on this for a couple of years, is how do we manage the conflicts of interest that a staff or a faculty at the university has? Because if they're doing something that's directly related to their university employment -- for instance, if I was working for ACUASI, the unmanned aircraft group, and I wanted to go out and start a business with drones, I would probably be in violation of the ethics act. But because I'm actually a remote sensing guy in a different group, oh, this is kind of like dabbling in something else. So that's one of the ways we've manipulated the system, and I'll speak to that in a little bit. But we still have issues related to the state ethics laws and this concept of conflicts of interest. At what point do I cross the line and am I taking business away from the university? Okay.

The other thing that we're trying to figure out right now in terms of what is the middle

market, is we've got to validate a variety of niches, meaning it might be a brilliant idea, but is it commercially viable? Will this actually work as a business? I mean, there are some things -- like right now we're flying an aircraft up in the Chukchi Sea for Shell Oil. This thing can fly 24 hours, but the longest mission we flew this week was two hours. That was just -- we wanted to get our time. And the only thing we're doing up there is we're taking pictures of the water. Okay. And the reason we're taking pictures of the water is later on, biologists, working for Shell, is going to go back and count the bowhead whales.

All right. That would not be really a commercial application, but, you know, Fairweather is involved, one of the Native corporations is involved, the university is involved. People are making money off of this, especially the support people, the contractors doing all this. But, you know, trying to figure out how do we validate some of these commercial markets.

So a thing I'd stress here at this meeting today is let's do what we do really well here in Alaska: We're a top-notch university when it comes to remote sensing. We do great things with satellites and cameras and radars and lasers. We've got also this advantage and probably this is the most easily overlooked: we've got airspace here. That's a huge natural asset. Let's take advantage of that natural resource and safely integrate our applications into this airspace. And then we've, of course, got other natural resources related to oil and gas. You follow the money typically when you're trying to validate a commercial market. It turns out there's a lot of interest in permafrost, permafrost thaw, how do we monitor things like this, how we monitor the erosion on the village beaches. You know, a lot of things like that's.

Assemblymember Dodge - I would think also figuring out how you not physically count whales, but how you do it with data.....

Keith Cunningham - Yeah, that's.....

Assemblymember Dodge - .....and the technology. The differences.....

Keith Cunningham - That's kind of an important point.

Assemblymember Dodge - .....in the delta.....

Keith Cunningham - That it's.....

Assemblymember Dodge - .....which change.....

Keith Cunningham - Yeah, when it comes to the concept of data, all we want to know is the rough number. We don't care about the actual precise count. We just want to know, is the population increasing? Is the population decreasing?

Assemblymember Dodge - Right. But there ought to be some way to use technology to do an average evaluation of whatever the image is.

Keith Cunningham - Yeah, yeah, and different drones.....

Assemblymember Dodge - Yeah, right, right.

Keith Cunningham - I mean, a good example, like for the pipeline project, one drone is going to be programmed to really close-range inspections of facilities; the other drone is going

be flying much higher. Bigger field of view, different application altogether. So you've got to mix the technology with the problem.

So this is something that kind of bugs me. I could care less about the airplane. The flying robot doesn't really interest me. The robot programming, however, fascinates me. How do we program this robot to do what it does? But how many propellers it has, I don't care. Does it have wings? I don't care. What color is it? I don't care. It's the data that comes off of the sensor that's on the flying truck, the robot that's flying around. So I'm totally agnostic about what we're flying this fall, what we'll fly next March, what we'll fly next summer. In fact, I'm asking companies, do you want to come up here and fly with us? What kind of airplane have you got? Yeah, here's the data I need to collect; can you collect this type of data.

So the value proposition for me is never the little flying robot. In fact, you almost look at this thing as disposable. I mean, as we test things, these things crash. You know, I was out at Poker Flat a few months ago and, you know, the 55-pound ScanEagle was launched from a catapult, neeaaarr, it stalls, boom. Okay. What do we do now? We recycle the parts, put it back together and let it take off. And these things aren't perfect; they're not idiot-proof yet, so there's always a certain amount of support that has to go into the trucks and new mechanics for the truck. But really it's the sensors, the data, and what we do with the data to turn it into information. That's really where the value proposition is going to be with this stuff.

So if you think about it, if you're Disney and you're flying for a movie, do they care how many propellers it's got? No. They just want quality imaging. So they're going to use that camera that Peter Jackson used on The Hobbit called the RED and they're going to put it on a drone, they're going to fly it, and they're going to get great footage.

What are some of the applications we've done at the university and how has this resulted in technology coming out of the university into the commercial sector? And so, I mean, everybody's been talking about the volcanos. We still haven't flown a volcano yet, but I've got a project that wants us to fly a volcano. We just haven't gotten around to it yet. What kind of drone will that be? It will be a balloon with some gliders, no motors, no propellers. And guess what? The FAA doesn't know how to manage that yet, so we'll be knocking at the door of the FAA saying, hey, and by the way, you know, if this volcano is doing something, there's not going to be a manned airplane anywhere near it. So that's one type of business.

And the reason we need to get a drone into a volcanic ash cloud is once we know the size of the ash, how much ash there is, even the chemistry of the ash, then we can figure out where is the ash going in terms of forecast. That way we can tell the airlines where it's safe or not safe to fly. Is that a true commercial application? Well, only the military thinks so right now. It hasn't been validated yet in the civilian sector. So, you know, the volcanic ash business, you've got to remember got a shot of funding from the air force. And we're talking to some big defense contractors that kind of say, yeah, we see something here, but, you know, it's just -- some of these things take awhile to write them.

The pipeline patrol business I'll be talking about here in a moment. Two weeks ago, I was in Ohio flying in a manned airplane with a special camera that's actually programmed to automatically point -- no matter where the plane is, to automatically point to where the very pipeline is on the ground. And I'm thinking now I can.....

Assemblymember Dodge - That's interesting.

Keith Cunningham - Now I can rig up this camera with this sensor and do this and then some day it'll be another drone, yeah.

Pipeline inspection is totally different. A totally different business and totally different market. And I mean when I talk about oil and gas, everybody thinks it's kind of the same thing. It's not.

Assemblymember Dodge - Another small side note of inspection is, right now if homes are built outside of an urban area, the contractor can actually send a video to AHFC to get inspection approval.

Keith Cunningham - Yes.

Assemblymember Dodge - So it's interesting -- another.....

Keith Cunningham - Sure, another little niche that nobody could have thought of.....

Assemblymember Dodge - .....small niche that might be.....

Keith Cunningham - .....yeah, a couple of years ago.

Assemblymember Dodge - Interesting.

Keith Cunningham - And I'll kind of talk about that when we get into the cadastral piece here.

Assemblymember Dodge - Yeah.

Keith Cunningham - Okay. So the property assessment business, that's exactly probably what triggered that in your mind, about three and a half years ago I wrote that paper that I sent you on cadastral map audits and assessments. The idea was, wow, I could really use a drone now to go out and do my valuations on properties. I'm not trying to put the assessor out of business, but we went ahead and worked up a patent related to this. The patent is like 120 pages long. We're shopping the patent around right now.

Assemblymember Dodge - You know what might be interesting, decennial census.

Keith Cunningham - Yeah.

Assemblymember Dodge - Because they have to go out and they now have GPS points.

Keith Cunningham - Yeah.

Assemblymember Dodge - That could be really interesting.

Keith Cunningham - You know, it'd be awesome if I could actually do the first property assessment using drones in this country, in Fairbanks North Star Borough, but, you know, we're kind of a libertarian crowd here and it wouldn't go over so well. It might go over the house and not come back.

Mayor Hopkins - You could probably get an application process.....

Keith Cunningham - Yeah.

Mayor Hopkins - .....if I wanted my house done that way.

Keith Cunningham - Sure, yeah, and make the news.

Assemblymember Dodge - Great. We could have -- you could have borough-owned lands (indiscernible - simultaneous speech).

Mayor Hopkins - Yep, there you go.

Keith Cunningham - And there are a lot of properties that are exempt but still in the tax roll, you know, like schools and firehouses and churches, things like that. So I'll talk about that in a bit.

The most exciting application right now is the ground control station business. I was talking to a guy today on the phone and he's got 400 drone sales and he needs 400 ground control stations. Okay. He said, where are you in the development? I said, well, we're almost to alpha testing, but this is a flying robot and we don't want people getting their hands on a beta version of the hardware or the software and having an accident. We've got to make sure this stuff is bullet-proof. But this is potentially.....

Assemblymember Dodge - Perhaps literally.

Keith Cunningham - Yeah. Very good. And then the last thing I want to talk about is the drone app business and if you think about this for a moment, the ground control station business, it's basically a box this big. You turn the box on. The box then talks to your Smartphone. What you do is it actually -- your Smartphone would locate a Wi-Fi; this is broadcasting via Wi-Fi to your Smartphone or to your laptop or to your iPad. The same box is also -- it's got a radio unit, it's talking to the drone. So your app on your Smartphone is now being used to pilot the drone.

So we get a hardware sale out of this and we have a customer giving us a subscription payment every month on their phone bill or whatever because they downloaded an app from us. And the idea of the app store is anybody then can write their own app and put it on our web site and we can keep improving our apps and selling them for research purposes. You get the idea.

Basically, I'm a research professor. That means I have to fund nearly 100 percent of my wages through grants so I'm writing a lot of proposals and right now I'm not as lean as I used to be, but I'm stressed. This project, I just learned today, that we had 1.4 million in work and today the paperwork just closed on the last 600,000. And, basically, this is sponsored work by the U.S. Department of Transportation. They thought, first of all, Alaska is a really interesting place because of thawing permafrost. It's also really interesting because the Alyeska Pipeline is a national asset; it's a critical infrastructure to the economy of the country. We've got the airspace issue figured out. The University of Alaska has been flying here so we've got a proven track record, so it just makes sense for the DOT to sponsor this research.

And so the angle I like to play here is, who does the DOT oversee? It oversees the FAA, it oversees PHMSA, the Pipeline and Hazardous Materials Safety Administration. So if I do this right, by the time my two-year research is over, I will have written basically the book on how to fly drones for pipeline surveillance, for patrols, for inspections that other companies will then be

coming to us and saying, look, can you help us learn to fly, too.

Really what I'm trying to do is three specific areas of research. One is integrity monitoring, and when I was telling you about the plane in Ohio flying along with a camera constantly pivoting on the gimbal, what they're looking for is dead vegetation because if it's like a natural gas pipeline and there's a leak, the vegetation will die right above where the pipeline is. Well, even though that's paying for the manned flight mission, really the stuff they're reporting or what they call encroachment is meaning there's a bulldozer or a backhoe or somebody is putting field tile into a farmer's field. That's integrity monitoring and that stuff has to be -- they send somebody out immediately to find out what's going on because you don't want somebody hitting your pipeline.

Facilities inspection. This is much closer range, flying probably within 20 foot of the piece of item that you're trying to inspect. You can imagine the flare stacks up at Prudhoe Bay. You know, you can't shut those things down, really. If you do it, you're shutting down everything. So you let the flare stack continue to burn, you do your inspection from the drone at a safe distance. Other things, though, that I'm going to be working on are really a cool way of doing what are called as-builts, which means after you build something, like put a piece of pipe in the ground, a surveyor has to go out and resurvey it. Okay. Because what the surveyor may have designed to begin with may not be where they actually built something, so they do a final follow-up survey called an as-built. I'm fairly certain that we can do this as three-dimensional photographs now, meaning you pull up the photo, turn it, you pan it, turn it upside down and it's all in real-world coordinates.

Assemblymember Dodge - And you're thinking also about welding?

Keith Cunningham - Yeah, I'll be able to see the welds, the joints, the coatings, whether or not there's a rock in the trench.

Assemblymember Dodge - Could you do x-ray? Could you include x-ray?

Keith Cunningham - No, not quite yet.

Assemblymember Dodge - Not yet?

Keith Cunningham - That's a big machine. Yeah. But certain things like pressure testing. You know, once everything has been welded and coated, they pressure it. They fly along and they put dye in the water and you can see the dye and the leak.

Assemblymember Dodge - I have another one.

Keith Cunningham - Yeah. Go ahead, yeah.

Assemblymember Dodge - One question.

Keith Cunningham - Help me build my business case. Yeah.

Assemblymember Dodge - Well, this is different. I was thinking about your flare stack and I was thinking about climbing really tall towers.

Keith Cunningham - Yeah.

Assemblymember Dodge - And.....

Keith Cunningham - Tower inspections.

Assemblymember Dodge - .....to do an adjustment, right, or to take a measurement.

Keith Cunningham - Rule (ph) arm on the robot maybe.

Assemblymember Dodge - That's what I was just going to ask, if your drone could hover enough to be able to do something.

Keith Cunningham - Bring that up again in our presentation close because I'll mention something that's not on the slides.

Assemblymember Dodge - It would be very useful.

Keith Cunningham - So go back one more. Geotechnical engineering.

Assemblymember Dodge - Could it wash windows?

Keith Cunningham - Well, you know.....

Assemblymember Dodge - That'd be safety.

Keith Cunningham - I'm going to build an app to take the leaves out of the gutter.

Assemblymember Dodge - That'd be nice.

Assemblymember Lawrence - Yes, yes.

Assemblymember Dodge - Try that at my house. Catch the cat.

Keith Cunningham - Yeah. So the geotechnical engineering, this is really a really, really big problem here in Alaska. Do you see that slump of dirt in the photograph there right above the word TAPS in the photo?

Barbara Johnson - Uh-huh.

Keith Cunningham - That's the Yukon River bridge and that's where the Alyeska Pipeline crosses the river. If that slump had just been to the east a little ways, it may have taken out the road and the pipeline and you have 100,000 -- $100 per barrel -- I think we're down to ninety something right now, but with 540,000 barrels per day, that's a significant hit to the economy of Alaska. Having a little drone that could do persistent surveillance, you know, what we call the dull work, that's one perfect thing for a drone.

Down here in the lower left-corner, yeah, Alyeska is interested in this. Are drones part of their business model? No, but they're going to develop some comfort in the two years worth of work that we do with them. At the end of this, there's probably going to be a little briefcase that they can deploy with their security teams out in the field, who can then open it up, have it take off, check something, and come back.

Assemblymember Dodge - It'll be two years from now. God knows, they'll drive it with

Google Glass or their watch.

Keith Cunningham - Actually, we're building our ground control station to work with Google Glass.

Assemblymember Dodge - Yeah, I'd think so; it would just make sense.

Keith Cunningham - Because when the drone is way up in the air, often you can't see it, but the little dot in the Google Glass would show you where to look.

Mayor Hopkins - Okay. Yeah, yeah.

Assemblymember Dodge - Then if you could figure a way to guide it with your Google Glass.

Keith Cunningham - Yeah, yeah. So we've already licensed the 3D as-built stuff to a company called CR Inspection. Even though I've not demonstrated with the drones, I've conceptually demonstrated all this. And so I'm hoping for a sales pitch to like Enbridge, which is one of the biggest pipeline companies in the world, maybe this November where we pitch this and say call it research because we really don't know what we're doing yet. There's a really good idea.....

Assemblymember Dodge - And you say you can't do it commercially, so you have to do research.

Keith Cunningham - That's right. But they're a Canadian company.....

Assemblymember Dodge - Oh, okay.

Keith Cunningham - .....which kind of eases the -- also, you know, that gimballed camera I was telling you about, we're licensing some of those ideas to this other company called TCQ. The guy who founded that, he's retired from BP Pipeline after 32 years, so he knows the business. Yeah, he likes what we're doing. And it's cool that we're already talking about licensing before we've even flown.

Keith Cunningham – Or droned. So, unfortunately, some business models really rely upon just finding the grant money to keep it going. So the volcanic ash business is one we just -- basically, the air force is giving us cash to research, research, research. And, ultimately, it could be turned into a really interesting commercial business opportunity, but it's one of those things where we need a CNN moment; we need the Wolf Blitzer with the mike in front of the interrupting volcano and then everybody knocking on the door.

Now, this was interesting because we had two Phase 1 Small Business Innovation Research Grants, one with Mobile Mapping Corporation, my little business, and just as a data point, this was the first SBIR that the university ever got and I was the first one to get this, so I have a small business to fly for one of these things. The other SBIR went to this company called Polartronix who is a sensor developer. So I focused on the forecasting; Polartronix was working on the sensor. Of course, the Geophysical Institute is in the middle of all of this. But when we graduated to our Phase 2 SBIR grant, which was 750,000 in research, I had to comply with a special type of government bookkeeping called the Defense Contract Audit Agency. You know of this?

Barbara Johnson - No. You were asking about that earlier. Keith Cunningham - Okay. I mean, it's -- the piece of federal statutes are that thick. All right? Did I have a DCAA-compliant accounting system? No. They didn't even like my time tracking system. So, basically, the way to get around that hurdle was to novate the contract with another company called Arctic that we just set up here in Fairbanks to do this and they merged it with a bunch of marines who already had a DCAA-compliant system. So, you know, you get kind of desperate, you're looking for a solution, oh, okay, yeah, I'll punt on this. I'm not going to hire accountants and administrators. I'm not going to sacrifice my joy. All I could see was my quality of life for the next two years being pitiful. So, yeah, I'm not going to do that.

Basically, the university's first business spin-off is this thing called V-Adapt. Basically, it's two volcanologists. And when we get through the Phase 2 research, the company right now we're marketing this stuff to is a huge military contractor called Accelus. Guess what? They manage the FAA airspace, all the radar for air traffic. They have the satellites that are in geosynchronous orbit that are used to monitor volcanic ash. Okay. And.....

Assemblymember Dodge - And so that makes really good sense (indiscernible - simultaneous speech).

Keith Cunningham - Yeah, and crossing fingers here, maybe this is how we position for a sale. Okay.

After I spent a day out of Poker Flat flying with the Tanana Chiefs Conference's.....

Assemblymember Dodge - Smashing things?

Keith Cunningham - Yeah, we actually lost two of those aircraft.

Assemblymember Dodge - You're drone-banned.

Keith Cunningham - I got to thinking about using the technology for taxation. You know, how can you use the three-dimensional property models, the measurements of a house, to augment a database the assessor runs call CAMA, Computer-Aided Mass Appraisal. And basically it's the dimensions of a house that feed the models that calculate the tax. And nobody in this country is doing anything yet with three-dimensional measurements on properties. You know, this is where it's going to have to go, people.

So, basically, working nights, I went ahead and put the patent material together. We went straight to patent-pending instead of -- we skipped the provisional patent. The idea is I'm not trying to make you pay more taxes; the idea is if we have better data, then the assessor can do something called equalization. That way everybody pays their fair share and, in theory, the tax goes down that's being levied because they've generated more income by having more accurate and complete records.

It's the equalization angle that I like to preach here. But what's interesting is I haven't been able to get any civilian companies -- civil commercial companies, our country, to bite on this yet because they know it's illegal to fly the drones.

So, really, I've got two business models I'm working here. Well, we can still do three-dimensional measurements on top of three-dimensional measurements from year one to year two, and I'm negotiating right now with a company called ControlCam to automate some of that

stuff. That way when they fly accounting the next time, I can spit out this house has had a new deck added, this one has got a new awning or something like that that's been added to it.

Assemblymember Dodge - Well, it seems like that Delta something that's really important.....

Keith Cunningham - Delta is super important, yeah.

Assemblymember Dodge - It's important for the pipeline, it's important for any kind of (indiscernible - simultaneous speech).

Keith Cunningham - Yeah, the change protection (ph) has come to all of us, yeah.

Assemblymember Dodge - Yeah, change and protection, right.

Keith Cunningham - So, really, I would be content if I could just license this patent to one of these patent trolls who would then just go out and sue people for infringement on the patent. I think the university would make a hell of a lot more money that way. But the thing is, this company wants a piece of me. So I'm just thinking, you know, when do I find time to do programming on their behalf to get them into the business where they then are (indiscernible) themselves. And this is the consistent problem here in Fairbanks. We just don't have a deep talent pool. The market for programmers, for instance, JavaScript programmers, it's a very shallow market.

In fact, Silicon Valley is trying to recruit our people away from us. Nobody from Silicon Valley wants to come up here. So, basically, you have to be an Alaska outside dog to want to live here and work here. So the idea is, yeah, I mean, I could complete the development of the software to do this, but is that the best use of my time? No. So we'll figure something out here to make a deal for Control Cam to get this into the market space.

A couple of types of opportunities that I would serve here in Fairbanks: there are companies that specialize in supporting drone operations. I call those sustainers. And there are companies out there actually forging new commercial missions and those are the start-ups.

These are examples of our sustainers. The university is a sustainer in this business. You know, we're bringing in these research dollars and we're helping things get spun off. The borough is a sustainer, the Alyeska Pipeline is a sustainer. Some of these names you won't know, like the Pipeline Research Council International, the PRCI. Once I write the book on how to fly drones for pipelines, I'm going to take it to them and we're going to go world-wide on these rules and regs on how we did it here.

For instance, helping ACUASI right now is a company called Peak 3 and another one called Battle Space. Okay. Peak 3, military, retired. Battle Space, retired military. Atkinson and Arctic, the people I work with, retired military. So the common thread here is, yeah, to kind of sustain this market, you're pulling from that first part of the market space, which is the military market. And we don't have a lot of sprinkling of that commercial side here.

Assemblymember Dodge - If this is a good time, I can tell you about something else that is going on. I'm thinking about Boots to Business, which is apparently -- well, you had the soldier transition meeting, if I.....

Mayor Hopkins - Uh-huh.

Assemblymember Dodge - There are some other venues that are working with the soldiers that are transitioning out, and I think air force that are transitioning out, have not necessarily had this in mind; it's been more about helping them understand how to start a business. But it might be really interesting to include you in that conversation as, you know, bringing some people to pitch some ideas of what's fertile in our community.

Keith Cunningham - Yeah.

Assemblymember Dodge - It seemed interesting to me.

Keith Cunningham - So the other.....

Mayor Ward - That's a specific (indiscernible).

Assemblymember Dodge - It's a -- yeah.

Keith Cunningham - Yeah, the other companies up here that I consider sustainers that aren't military: Polartronix, it's a one-man shop, basically, he built a seismic network monitoring the state and he works out at Poker Flat building sensors and he doesn't want to grow, he doesn't want the headache of people.

Northern Embedded Solutions is really interesting. These are all students from UAF who didn't want to leave town and so there are about four of them now, they're all business partners in terms of their tax structure and I think the oldest is 27. My pilot that I'll be flying with, Alyeska Pipeline, he just passed his ground school; he's 22. Okay. And he's my drone pilot. The thing is, 100 percent of their revenue comes from the drone program. So, basically, they cohabitate with us. You know, they're basically like university contractors.

So on the back side, yeah, my little business, I'm doing things with drones, the V-Adapt people are, but, really, the fascinating business case that I really hope does take off is Arctic Fire Development. These are two staff. They both work for me at SNAP, and SNAP is part of IARC, this International Arctic Research Center.

Assemblymember Dodge - Say something that's not an acronym.

Keith Cunningham - Yeah. SNAP stands for the Scenarios Network for Alaskan Arctic Planning, and the reason they work for me is we're kind of one of the more entrepreneurial groups on campus. In other words, my boss lets me play and I happen to find the work where, okay, I've got this research project that I need this sensor built, you guys build it for me. Okay. So Bruce and Ray are the two founders for Arctic Fire, and they incorporated in January. Last month, they had their first flight, meaning the drone took off, did its thing, and came back and landed. This past weekend, I saw the hardware working. They turned on the hardware and, again, okay, I just need blinking lights.

Again, I was talking to one company that's already taken 300 orders for a special drone that NOAA is probably going to buy and I'm just thinking, okay, yeah, a pre-order for 300 ground control stations. Right now I've been buying these things for my research for about five grand a pop and that's just the hardware. So now you can do the math.

You know what the ground control station for the ScanEagle looks like that's flying right now up at Wainwright to map the bowhead whales? It's two massive trailers. To deploy that one aircraft that weighs only 55 pounds required a complete C130 to be loaded up and take off here from Fairbanks and land at Wainwright. There's that much infrastructure that goes on with this thing.

What we've done is we've collapsed the two trailers with the antennas and the dishes and the computer consoles down to a little box. In other words, we didn't take a military approach to this problem. You know, I'm thinking I want to use my iPhone to do this. So if there's something that you could help us with -- right now I've been desperately trying to do two things: find some investment money so that we can hire another programmer, maybe two more, because we just can't get the talent for a variety of reasons. One (A), the people that work at the university who agreed to help us out, they couldn't get the conflicts of interest waived because they're already programmers for the university and so they'd be doing programming on the side for, you know, this spin-off. So we couldn't get the waiver there for that conflicts plan. There's a guy down in Anchorage we'd love to hire. Yeah, okay, we're looking at 120,000 a year, loaded labor, to pull somebody on board. We don't have cash flow yet, you know, so we -- back to family. All right. So we're shopping around with family members for loans. But I've already pitched it to a couple of -- not quite, we're not at the stage yet of venture capitalists. You know, we're looking for somebody that will bridge us a loan and do some angel investing, and so I've got an angel investor I'm chatting with. But what he asked for on Friday was, Keith, I need some real financials. Okay, I'll put this in my schedule some time. Yeah.

Really, what we desperately mostly need is not money, but we need the "C" suite filled out. We need a chief financial, a chief executive. We can do the technology and I can get out there and I can be the evangelist and figure out what the niches are for all these things, but we have to fill the C suite offices to make this thing really take off. If we were in Silicon Valley, I could probably just arrange a lunch that day and find my people and we would be up and running, but it's time consuming here in Fairbanks to figure this out.

So you were going to ask me a question about robot reaching out.

Assemblymember Dodge - Hey, Paul, do you have something you would like to -- oh, I was just thinking -- I was just thinking about, you know, the many things that happen in high.....

Keith Cunningham - Yeah.

Assemblymember Dodge - .....risky places that are about.....

Keith Cunningham - Well, this high risky place that I was thinking of.....

Assemblymember Dodge - .....small measurements or.....

Keith Cunningham - .....I mean these little robots when they're out there flying around, we've got one with six propellers and it looks like copter hovers. Every one of those little motors is sucking 600 watts of power. Okay. Super power-hungry. But last week at the big conference, I had a track dedicated only for transportation applications and I didn't let this cat out of the bag, but I've already done the invention (inaudible) with the university. But guess what? If that little helicopter is not burning through all your electricity? How long can you run the video camera? And what else is on that drone that would be of interest to a transportation engineer? A structural engineer?

Let's say we've got a flood and a railroad bridge is shaking or rattling, and you don't want a railroad bridge carrying a rail car across it. You could plant the drone, let it land there, turn off the motors, and it could stream video. And on that drone are a variety of other sensors.....

Assemblymember Dodge - Right.

Keith Cunningham - .....and one of these things is called a MEMS. It's a microelectronic something-or-other. It's basically an accelerometer that works in this axis, this axis, this axis, and I could actually turn off the propellers and have it transmit live streaming video of everything that's.....

Assemblymember Dodge - Vibrations.

Keith Cunningham - .....going on. Guess what we call this? Sensor bombing. And when the event is over, you just walk out and you pick it up and bring it home. So I mean there's no wont of ideas here at the university. What we lack is that depth to quickly transition these brilliant ideas fast into the market space without losing market share. What we need is that -- what we need is our little Silicon Valley up here where we've got the pool of talent, we've got the people who are willing to risk money because some of these ideas are stupid and we haven't proved them yet in the market space, but some of these are just -- these are no-brainer, yeah.

Assemblymember Dodge - So, Keith, a couple of years ago we were -- we used to have this little economic development group within the university.....

Keith Cunningham - Uh-huh.

Assemblymember Dodge - .....and we had a software professor come and talk to us and she had students that were doing iPhone apps as part of their class and they were doing other software engineering things. And I would think that might be a place -- especially if it's students because then you don't -- presumably don't have the conflict of interest.

Commissioner Robinson - Is that the Economic Opportunity Task Force you're talking about?

Assemblymember Dodge - No, this was an internal group that we used to have when we had that (indiscernible - simultaneous speech) advisor.

Keith Cunningham - But, see, my ask was help on the business side. My ask wasn't for a tech park.

Assemblymember Dodge - Yeah.

Keith Cunningham - What I need from.....

Assemblymember Dodge - No, I'm just thinking.....

Keith Cunningham - My applications are different, yeah.

Assemblymember Dodge - .....that that software -- that some of the software engineering instructors at UAF might have some interesting -- I'm sure you've played with that.

Keith Cunningham - Yeah.

Assemblymember Dodge - You've contacted them? Have you.....

Keith Cunningham - You know, one of the things is bandwidth, too.

Assemblymember Dodge - Yeah, you get -- yeah.

Keith Cunningham - I mean, networking is somewhat difficult when I'm huddled over a proposal all day long. So we'll get to the cadastral.....

Assemblymember Dodge - That's why you talk to us.

Keith Cunningham - .....piece here in just a second. But question?

Mayor Ward - So it sounds like one of your issues, then, is people, qualified people, not only programmers but also the people that can market.

Keith Cunningham - Yeah.

Mayor Ward - What kind of relationship -- I know you've mentioned that you have some relationship with the Office of Intellectual Development.

Keith Cunningham - Yeah. I mean, what they do is really prodigious based upon the budget they've got and the support that we get is phenomenal. But, for instance, the 49th Angel Fund, we had to have an address in Anchorage to qualify for that. We're a Fairbanks company so we don't qualify. Anchorage has just launched the accelerated fund with two professors out of UAA. You know, they've got their hands full right now with investments in Anchorage.

What I'd like to do is a road trip. We take our inventors down to Anchorage and we all pitch for a day. The thing is we've got lots of great idea. Turning fast enough is a huge problem up here, meaning if we don't act that week, we've lost the market and opportunity.

So that's why the cadastral survey is kind of interesting. This will be a first in this country if we did it. Fly a drone and then reverse-engineer the typical cadastral survey. Right now, you go out with your equipment, you drag a chain or a tape or a total station through the woods. There are some places we have to be planted with a helicopter to do your work, and then there's monumentation to do. And usually the air photograph is not a prerequisite, but we could -- one of the things we tested with your predecessor, Eric Stalke (ph), was we can fly the air photograph, make it scale accurate which means you could put a ruler on it and you know exactly the dimensions of your property, figure out where those corners are, and then send your crew out to figure out from the real-time kinematic GPS where are the corners and do the monumentation. That's completely backwards than all techniques used in this country. That's revolutionary. Nobody's done it yet.

Commissioner Robinson - Going back to what you need.

Keith Cunningham - Yeah.

Commissioner Robinson - And I hate to always be the accountant in here, but what do you need in terms of dollars to be able to.....

Keith Cunningham - We'd like two more full-time people. Both of the programmers at Arctic Fire, Bruce and Ray, are half-time. That way they can keep their university benefits. Okay. They work for me and I manage their schedule in a half-time way so that they're not stressed with UAF stuff.

You know, so two more full-time, making them both full-time at about 125,000 per FTE, that comes out to 250, 375. That's lean. We also need cash to build the box and push that as fast as possible in the beta testing.

Commissioner Robinson - And then you.....

Keith Cunningham - And then we have 50 of these boxes. Yeah, probably another 100,000 on top of that.

Commissioner Robinson - On the other side, what are you willing to give up?

Keith Cunningham - Yeah, everybody wants (indiscernible).

Commissioner Robinson - That's the only way I can sell that. I'm sorry.

Keith Cunningham - You know, that's why I think you'd have to help me on the financials, you know, to keep -- that way you're going into that clear-eyed. You know, I'm not doing this like the bubbles from ten years ago where people are just pitching stupid ideas and getting investment money and drawing huge salaries and cashing out when everything failed. No, I want this to work. You know, I want everybody to be treated well here. So we'd probably give you 20 percent maybe for 500,000.

Commissioner Robinson - Well, you don't want to talk to me. I'm going to talk to somebody (indiscernible - simultaneous speech)

(Multiple voices talking and laughing simultaneously)

Assemblymember Dodge - And it sounds like you also could use the C, meaning you could use a CFO that could help you.

Keith Cunningham - Yeah. I mean, ideally, the guy I'm going to start interviewing, he brings cash and he'd be the CEO. He lives in San Diego right now and he's done all kinds of business flips and conversions and start-ups before, so he knows what he's getting into. And, you know, if he can bring his own money, yeah, he can be the CEO.

Commissioner Robinson - And the emperor.

Keith Cunningham - But here's the deal.....

Assemblymember Dodge - But you might get droned.

Keith Cunningham - .....my two programmers, they're unusual guys. Okay. When I use the term "outside dog," there's no way they could move to San Francisco and work in the valley and be happy. You know, I mean one of them lives in a dry cabin up around Gilmore, you know. He's an outside dog.

So that's my opinion on business development here with the drone market.

Mayor Hopkins - Yeah, we looked at the Angel Fund for just a while, you know, but that took a fairly big commitment out of the assembly's wallet to make that work. And then somebody said that the Anchorage Angel Fund was supposed to be statewide, but it never went statewide.

Keith Cunningham - Right.

Assemblymember Dodge - It couldn't be. It had to be brought by.....

Mayor Hopkins - By a municipality.

Assemblymember Dodge - It had to be a municipality that stepped forward.

Keith Cunningham - Yeah, they've still got three million they haven't spent.

Barbara Johnson - Wow.

Assemblymember Dodge - So I found the name of the lady. I'll send it to you, Keith.

Keith Cunningham - Okay.

Assemblymember Dodge - And if you want some help (indiscernible) with her.....

Keith Cunningham - The lady?

Assemblymember Dodge - Yeah, the computer science professor that met with us that had the students.....

Keith Cunningham - Okay.

Assemblymember Dodge - .....that was interested in partnering.

Keith Cunningham - So there's one other company I haven't mentioned yet and they want to be a start-up desperately. They desperately want to be a start-up, but they can't because of the university conflicts of interest rules because they would be perceived as taking business away from the university. I'm thinking, no, this pie is so big.

Mayor Ward - (Inaudible)

Keith Cunningham - Yeah, this is just the wrong attitude, but this is, you know, how university general counsel interprets the statutes. But, yeah, if they could fly today, there'd be two of them quitting the university if they had some contracts.

Assemblymember Dodge - Well, and I think that, you know, something that is possible to address this is making it a priority to resolve -- to try and work on this ethics issue at the state legislature this year.

Keith Cunningham - Yeah.

Mayor Hopkins - Yeah.

Keith Cunningham - So the company that wants to start itself is in North Pole. You've

probably seen them flying out at the football field.

Mayor Ward - I have, actually.

Keith Cunningham - Yep. Uh-huh. Now, as long as they do that for recreation, it's totally legal. But if they accept a dollar in return for a photograph, it's illegal.

Mayor Ward - Well, you give me a lot to think about. I do apologize. But I do appreciate you coming in.....

Keith Cunningham - Yeah, thank you.

Mayor Ward - .....and giving your presentation.

Keith Cunningham - So let's talk about the cadastral real quick. We could fly it with a drone. Yeah, eight square miles is not a huge piece of real estate; you don't have to do the battery swap four or five times to get all the flying done. But you still need somebody that can sign and seal everything and that's where you come in. And I'm in the process of working up, more or less, a partnership agreement with Tanana Chiefs because there's a lot of money out there next year that the BLM is going to be want flown for rivers to figure out what is a navigable waterway. And you may recall the State of Alaska actually petitioned the Supreme Court to hear on what defines navigable waterway in Alaska. I'm going to do this. I want to use drones. That's a lot of money.

So you guys can sign and seal; I can fly the airplane and process the data. And when I say sign and seal, that means you need a professional surveyor, you know, with.....

Michael Stephen - To stamp.

Keith Cunningham - To stamp it, yeah, and basically then you have a legal document that can be used for conveyance. So he's worked up the numbers for you.

Mayor Hopkins - So one of the pieces that's interesting in just.....

Barbara Johnson - Bye, mayor.

Mayor Hopkins - Mayor Ward, thank you.

Mayor Ward - Yes, thank you.

Mayor Hopkins - Is that that works for BLM, but the state law needs to have something put into it, modified state law amended where you can do it over state land. Because I understand that there may be a different boots on the ground only for state land.

Michael Stephen - Well, the portion that works with BLM is getting data to measure meander -- meander data. So river boundaries.....

Mayor Hopkins - Okay.

Michael Stephen - .....shorelines.

Mayor Hopkins - That's what works for them? Okay.

Michael Stephen - Yeah, because there's -- you know, there's a different standard of measurement there to the actual property corner.

Keith Cunningham - I mean, if we pursue something like this and, you know, if my dreams come true, that's probably 50 surveyors. Immediately it will create jobs here in Fairbanks. And 50 pilots and another probably 200 ground support people.....

Michael Stephen - But there is.....

Keith Cunningham - .....just to do navigable river surveys, yeah.

Michael Stephen - There is an issue with -- yeah, you can't just -- you know, you've still got to -- there are so many standards when you do a survey. You can't (inaudible).

Mayor Hopkins - Right.

Michael Stephen - It's like if the BLM wants to not put survey monumentation every two miles, I mean, there's federal law that says, you know, this is how a survey is done. You know, there's a profession there that goes back -- you know, way back, so.....

Mayor Hopkins - Yeah.

Michael Stephen - Yeah, to change all that is -- that's a huge problem. They say, yeah, you can use imagery from a drone to say this is where the property corner is. Well, yeah, that's probably too revolutionary.....

Keith Cunningham - Yeah, guess what.....

Michael Stephen - You can nail down that position.....

Keith Cunningham - .....this week, I got my first BLM drone contract. And guess what it's for? It's to map dinosaur footprints and archeological scrapings.

Commissioner Brooks - Oh, cool.

Keith Cunningham - And I'm just like, you've got to be kidding me. They want 3D models of this?

Assemblymember Dodge - That's a really good idea, in situ. Yeah.

Keith Cunningham - Yeah, yeah.

Michael Stephen - But as-builts, holy cow.

Keith Cunningham - Yeah, yeah.

Michael Stephen - You've still got to do the property lines the proper way, but if you're measuring houses within that without actual -- you know, you've still got to have something on the ground to control your photographs and once you have that, well, then the river boundaries are -- and houses -- yeah, that stuff is just like (inaudible). That's the way to do that. As-builts, property taxes, right?

Keith Cunningham - Anyway, I think you came up with a price around 20 grand to do the eight square miles or.....

Michael Stephen - Yeah, just looking at the boundary you showed me. I don't know if that was real.....

Keith Cunningham - Yeah, you probably went off the big boundaries.

Michael Stephen - I did.

Keith Cunningham - Yeah, okay.

Michael Stephen - I did. And just the traditional survey, I mean, you guys need the -- this is talking about the drone site. You're going to have to have it surveyed before you're actually doing anything there.

Keith Cunningham - Uh-huh.

Michael Stephen - And you're saying that the borough is in charge of the boundaries there, or paying for the survey or.....

Mayor Hopkins - The state -- I don't think they -- they have done or they care about the DNR lands specifically yet. That's on the west side.

Michael Stephen - Uh-huh.

Mayor Hopkins - And the Mental Health land that's on the south side of it. So I think the army might have some actions that they've already paid for for their boundary of the Yukon Training Grounds, but.....

Michael Stephen - Yeah, I saw that.

Mayor Hopkins - But I don't know whether that's had boots on the ground yet.

Michael Stephen - No, there's no surveys in the area at all.

Mayor Hopkins - Yeah, yeah, okay.

Michael Stephen - I was just curious because it looked like it was deeded to the state and, you know.....

Mayor Hopkins - Yeah, it's in.....

Michael Stephen - Normally the.....

Mayor Hopkins - It's a municipal withdrawal. Yep. And so it's just there for the moment.

Michael Stephen - Well, a traditional survey out there, I mean, it looked like you'd need a helicopter. All the access is off the road.

Mayor Hopkins - Uh-huh. Yeah, the road kind of bisects the area. Yep.

Michael Stephen - Yeah, for pricing, you're looking at 20,000 or so, but I don't have the exact areas or anything like that.

Mayor Hopkins - Yeah. Well, you know, we have the -- for us and I'm sure you have it, too, the GIS maps to look at it and.....

Michael Stephen - Oh, yeah.

Mayor Hopkins - .....the elevations and everything. Right, but that comes next at some point.

Michael Stephen - Uh-huh.

Mayor Hopkins - Yeah. So.....

Keith Cunningham - All righty, well.....

Mayor Hopkins - Thank you for this.....

Keith Cunningham - Yeah, thank you.

Mayor Hopkins - And for those that weren't here, we had -- Keith, you came in and had the air quality -- or the air monitoring route. I guess it would be a real-time simul -- or real-time modeling of air.....

Keith Cunningham - At different heights.

Mayor Hopkins - Yeah, particulates at different heights around the globe and it is pretty incredible how air flow moves around with particulates, which goes back to, you know, ash and everything -- all kinds of things.

So thank you for that. And, you know, depending on what happens with the (inaudible) implementation plan on air quality or on finding a plan that actually shows attainment, does your model go down -- what's the refinement on that? Do we.....

Keith Cunningham - Yeah, there's different data and what the drone does is it takes samples that are used in the calibrated model. So we still need other data to feed the model like satellites.....

Mayor Hopkins - Okay.

Keith Cunningham - .....from weather balloons and such.

Mayor Hopkins - Okay. All right. Interesting. Further questions? All right. Well, we thank you very much.

Keith Cunningham - Thank you, yeah.

Mayor Hopkins - Mike, thank you for coming in.

Michael Stephen - Yeah, thank you guys.

Mayor Hopkins - Very good. This is incredible stuff that's just waiting out there.

Keith Cunningham - Here in Fairbanks, yeah.

Mayor Hopkins - Yeah.

Keith Cunningham - All right. See you guys later.

Commissioner Talvi - Thank you, Keith.

Commissioner Robinson - Thanks.

Mayor Hopkins - So without any further questions, continue on our agenda. We have Old Business listed. We have none. We have Commissioner Comments now, so this is the time we all get to just talk. So starting around, Russ?

Commissioner Talvi - I don't have any comments. I'm good.

Mayor Hopkins - All right.

Commissioner Talvi - I'll pass it along to Van there.

Mayor Hopkins - Van?

Assemblymember Lawrence - I thought that was an interesting presentation and, yeah, there's -- you know, we've just got to get it all together. I mean, there's syn -- potential synergy here that can just make things take off. We just have to.....

Mayor Hopkins - Yeah, Paul said he.....

Assemblymember Lawrence - .....help get the right people together.

Mayor Hopkins - Well, we'll see what Paul has to say.

Assemblymember Lawrence - It's up to Paul to make it happen.

Mayor Hopkins - So, Kelly, we'll leave you for last so that you can hear other comments.

Commissioner Brooks - Sure.

Commissioner Robinson - I do think that Keith is kind of a rarity. I mean, he's a big-brain academic that sees economic development potentials, which I was on that Economic Opportunity Task Force and that was not the norm. Assemblymember Dodge - Yeah.

Commissioner Robinson - When they got the big brains and us in the same room, we had a hard time talking to each other.

Assemblymember Lawrence - Yeah.

Commissioner Robinson - I mean, we really did. And he sort of bridges that gap. I think he's kind of the key to -- with them going forward and anything that we can do to help him, I think we should.

Mayor Hopkins - Uh-huh.

Commissioner Robinson - That group that was together, it's kind of a shame that they let that go because.....

Mayor Hopkins - Yeah.

Commissioner Robinson - .....it wasn't just an Economic Development Task Force; it was big money.

Mayor Hopkins - Yes, it was. Yeah. There were investors.

Commissioner Robinson - Gary Sadler and Tim Cerny who's got the research for -- I mean, those are guys that, you know, could take all his cares away.....

Mayor Hopkins - Yep. Yeah.

Commissioner Robinson - .....real quickly, and they're the guys that would see that, too. I don't know what happened to that.....

Mayor Hopkins - Yeah, I was going to ask you, what do you think happened to.....

Assemblymember Dodge - It went to OIT and OIT or -- it's not OIT. That Adam -- Adam's group and he just has had other things to do is my understanding. But that doesn't mean that we shouldn't have a conversation with him about how we can help him bring that back together.

Commissioner Robinson - And Joe Faulhaber was in that group and Jim Haselberger. And I mean I thought it was a terrific group and we were looking, you know, as a group, to invest in something.

Mayor Hopkins - Yes, something. Yep. And blueberries and.....

Commissioner Robinson - Yeah, we looked at a lot -- you know, but those guys, they were looking for something with a huge return and this is the type of thing that would have huge returns and it's kind of a shame that it didn't make it -- that group didn't make it to this far.

Mayor Hopkins - Huh. Thank you, Paul.

Assemblymember Dodge - I would just say, you know, we should pull that back together then. Or just do one thing with Keith and say.....

Commissioner Robinson - I don't even know -- I mean, that was partly FEDC and partly the chancellor's.....

Assemblymember Dodge - Yeah, and we can talk to Jim about it.

Mayor Hopkins - Yeah.

Commissioner Robinson - I'm not even sure who sponsored all that, but.....

Mayor Hopkins - I thought it started with.....

Assemblymember Dodge - It was FEDC that started it, yeah.

Mayor Hopkins - .....FEDCO, yeah.

Assemblymember Dodge - And, quite honestly, we wouldn't even have to use that format. We could just put something together ourselves.

Mayor Hopkins - Hmm.

Assemblymember Dodge - If we feel that it's.....

Commissioner Robinson - Right. And at the time we were having other people that.....

Assemblymember Dodge - Right.

Commissioner Robinson - You know, Bill St. Pierre was starting to come to those meetings.

Mayor Hopkins - Yeah.

Commissioner Robinson - I mean, he's an active investor and he's got an active mind and.....

Mayor Hopkins - Yeah, he's active, yeah. That's for sure.

Commissioner Robinson - And this is the type of thing that would appeal to him. You know, he likes longshots with big potential.

Mayor Hopkins - Uh-huh.

Assemblymember Dodge - I'll work with you on that.

Barbara Johnson - Who was that? What was his name again?

Mayor Hopkins - Bill St. Pierre.

Barbara Johnson - Okay.

Mayor Hopkins - He owns or now joint owner with two TV stations.

Commissioner Robinson - He owns a bunch of properties.

Mayor Hopkins - He's doing all kinds of things.

Commissioner Robinson - Radio stations and properties.

Assemblymember Lawrence - Well, he still owns the restaurants. I think the best hamburgers in town.

Commissioner Robinson - No, he sold that. He sold that, yeah. He started Mosquitonet way back when.

Mayor Hopkins - Yep.

Commissioner Robinson - That was pretty much our first Internet.

Commissioner Talvi - And his software for service model, that point of sale system. And Rogers Solutions or whatever that was.

Assemblymember Dodge - Right.

Commissioner Talvi - Local point of sale system, yeah.

Commissioner Robinson - You know, with him, this is an election year and I'm sure he's just swimming in cash right now. I mean, he's got everything.

(Multiple voices speaking simultaneously)

Mayor Hopkins - Anything else?

Assemblymember Dodge - So the fall workshops are set. I have one or two copies of what we're doing.

Commissioner Talvi - I printed some and I left them in my office.

Assemblymember Dodge - And our team met and set the spring schedule yesterday I believe. Was it yesterday?

Commissioner Talvi - It was.

Assemblymember Dodge - It must have been yesterday. I have some more if someone wants them. We're doing -- Paul is doing recordkeeping and taxes for mining businesses, which will be exciting. And we're doing another recordkeeping and taxes for ag and I think that the way I gauge success for these workshops is when I get people from Anchorage and Mat-Su that are yammering at me that they -- why am I not providing these in Anchorage and Mat-Su. And we're getting that again.

Mayor Hopkins - Because they have hotel rooms that need to be filled.

Assemblymember Dodge - So we think that's success.

Mayor Hopkins - Yeah.

Assemblymember Dodge - Although I'm happy to also make it available and take their money. I think I would like to suggest that we, as a group, start thinking about a feasibility study for the UASes. It seems like the tech park, a good first step is, what is the feasibility of it, what is an appropriate model, you know, who is interested? Market feasibility kind of a step, just as a validation and a good -- it's what we would need to get funding from whomever. Also.....

Mayor Hopkins - So like a recommendation for it or.....

Assemblymember Dodge - I think that this group might make a recommendation. Why don't we just talk about at the next meeting, you know, what about investing in a UAS feasibility -- a UAS tech park.

Commissioner Talvi - Could that be one of our projects?

Assemblymember Dodge - It could be -- yeah, I think it could fall under it, but a feasibility -- no, I'm talking about purchasing one, you know, having like experts go out and do a feasibility study that could come back and tell us is a UAS tech park feasible, who would be the clients, how would the package be put together? I mean, that would have a lot of credibility and I think move that project forward if it's an appropriate project. And if not, we want to know now, not after we spend time and money pursuing something that isn't. It looks good.

When you get to comments, I understand you might have something to announce. But I hear that the UAS conference was really good.

Barbara Johnson - It was.

Assemblymember Dodge - I'm sorry I didn't make it. It sounds like there was a lot of value. And I wanted to mention one other thing, and that is that Adam Krynicki and I were chatting. He has a new office. Right when you come into the library at the university, which is good news/bad news, but I had to go in and be one of those that bugged him so he couldn't get work done. And he was talking about a need for something called a Mentors Network. He's got people that are coming in with inventions, people that are coming in with business plans, people that are coming in with disclosures, and he needs people to be able to help them with developing the business plan or vetting an idea, or putting together finances.

So we were talking about how to put together a ListServ so that he could say, hey, I've got somebody that's got this area of expertise, do you know someone?

So I'm just kind of putting that out there. I'm going to put together a resource sheet so that people can -- you know, Van can say I'm good at this, and Russ can say I'm good at that and it's something that we can publish and share, and people can hand out and go, well, here, here's a resource sheet. We also talked about maybe a small business resource mixer next year at the end of our start-up week. So it'd be another opportunity again for some small businesses to come in and meet resources in the community. Put a face to them -- to a name and maybe have a little speed-dating conversation.

That's probably enough for -- I'll hold off because I don't want to steal somebody's thunder.

Mayor Hopkins - If I may ask, is it.....

Assemblymember Dodge - And I'm happy to partner with Paul and whomever on getting Keith and investors together.

Mayor Hopkins - Yeah, sure, that'd be good. The Mentors Network and then you talked about -- is that like a -- is that called Kickstart or.....

Assemblymember Dodge - Start-up weekend.

Mayor Hopkins - No, but that program.

Assemblymember Dodge - Mentors Network?

Mayor Hopkins - No. Well.....

Assemblymember Dodge - Kickstart is a funding program.

Mayor Hopkins - Yeah, right. So if you have a good idea and you want to try to move it along, some people just go jump right out, you know.....

Commissioner Talvi - To a kickstarter or.....

Assemblymember Dodge - Yeah. They're going to get sent back to do a business plan real quick, I think, is my impression with Kickstarter.

Mayor Hopkins - Okay.

Commissioner Talvi - It depends.

Assemblymember Dodge - Or if you can get it on.

Commissioner Talvi - It depends. There's -- I mean, if you have a product that captures the imagination of a crowd.....

Assemblymember Dodge - Like.....

Mayor Hopkins - Right.

Assemblymember Dodge - .....potato salad.

Commissioner Talvi - .....you can presell a product. I mean there's examples of people raising millions of dollars, but those are rare.

Assemblymember Dodge - Yeah, a kickstarter would not be what I'd have in mind. This is more about resources, but one of the resources that we would have there are people that do know about Kickstarter and do know about crowd funding and -- what's our other one? Kiva Zip and.....

Commissioner Talvi - Well, that's a microloan.

Assemblymember Dodge - Yeah, it's a microloan. There's lots of tools.

Commissioner Talvi - There's hundreds of platforms, yeah.

Assemblymember Dodge - There's lots of tools.

Commissioner Talvi - Crazy.

Mayor Hopkins - It sounds like something that moved along from an incubator. You know, the incubator was where you bring in the patent people, you know, all these different people are there to help somebody who has an idea that kind of gets it going. But, yeah, but that's a different thing, too, right. So.....

Assemblymember Dodge - You know, and Jim is working -- we're working on a virtual incubator idea and -- you know, we're still working on it, is what I'd say. But I -- you know, I

think that when I was at, of all things, I don't know what conference, but it had nothing to do with -- I guess it was community and economic development. But we went to a rent -- a space rental. Like there's these small business rental areas where you just go in and you rent space. But they had people like attorneys and CPAs and commercializing people come in and they would just have an hour, Thursday afternoon, from 2:00 to 3:00 and that way the people that were also part of the space could come in and ask questions of specific professionals. And it's an idea I've been pitching, but it hasn't gotten a lot of traction yet. And I'm not ready to plan it yet. If somebody else would, I would support them.

Commissioner Talvi - That meet-and-greet, that's part of Start-up Week.

Barbara Johnson - Yeah.

Assemblymember Dodge - Is a version of it.

Commissioner Talvi - Yeah.

Assemblymember Dodge - Very small version of it.

Mayor Hopkins - Well, Ms. Brooks?

Commissioner Brooks - I have nothing to add today. Assemblymember Dodge - Yeah, you did (indiscernible - simultaneous speech).

Commissioner Brooks - I'm good listener. I need to process. It was fascinating.

Mayor Hopkins - Well, thank you very much for your first meeting here.

Commissioner Brooks - Well, thank you.

Mayor Hopkins - And just to let individuals know, on September 30th will be when we take the idea, you know, the very germinal idea of a Military Facility Zone to see about would that fit over the tech park, because that's the whole reason to try to bring together the economic development piece that the state can have for businesses doing work with military and UAF is one of those.

Assemblymember Dodge - So what do you mean by that? Can you elaborate?

Mayor Hopkins - What do I mean by that?

Assemblymember Dodge - Yeah.

Mayor Hopkins - Well, the Planning Commission.....

Assemblymember Dodge - Oh, okay.

Mayor Hopkins - .....we have to apply for a Military Facility Zone, which has been something that's been in.....

Assemblymember Dodge - Right.

Mayor Hopkins - .....discussion a lot and we've narrowed it down from about eight places

around the borough to one that seems the most viable. And so that has to have a change in the comp plan before the assembly can authorize submitting an application to Department of Military and Veterans Affairs at the state level. That's who approves a Military Facility Zone, which sets many things in place. Then we can say, you know, outside of a -- you know, if companies want to come here and have their own feasibility study for a tech park, good, they can do that wherever they want. But, again, as I've commented in a number of presentations that the tech park, tying it with industries that are associated with the military and tying it in with the university, with UAVs, is the connection for a military -- I think for any Military Facility Zone to go forward.

So that's what will be discussed: a change in the comp plan or a little patch from the Salcha area in the borough, and then that has to go to the assembly after that. So those things are in process and then the ordinance for a Military Facility Zone approval will come in behind that.

Assemblymember Lawrence - Mayor, on the 30th, what is the forum of this discussion?

Mayor Hopkins - It's a work session at the Planning Commission. So the Planning Commission will hear because there's an ordinance already being submitted to the Planning Commission to consider changing the comp plan.

Assemblymember Lawrence - All right.

Assemblymember Dodge - So two separate issues, then. That is that specific piece for the comp plan. That doesn't mean that's the only area you're going to propose from a Military Facility Zone, is it?

Mayor Hopkins - Well, for the moment.....

Assemblymember Dodge - It's just the one that.....

Mayor Hopkins - .....it's one that has risen to the top.

Assemblymember Dodge - Right.

Mayor Hopkins - So far there's -- you know, the pieces around that, the university has -- they're not interested in it enough yet and, you know, they said it may be a good idea, but not right now. And so a couple of the other pieces are -- they've got complications for the idea of a tech park. If there's other ideas, you know.....

Assemblymember Dodge - Right. But it seems like the tech park is one piece and then there may be other areas, though, that a Military Facility Zone overlay would make sense.

Mayor Hopkins - It might, yep.

Assemblymember Dodge - But not right now is what you're saying?

Mayor Hopkins - I don't have any right now that I'm bringing forward, right.

Assemblymember Dodge - Okay.

Mayor Hopkins - So anyway just to let you know that it's going to be a discussion at the

Planning Commission and then they vote on it on the 14th of October.

Commissioner Talvi - Is that parcel adjacent to the range so that.....

Mayor Hopkins - It borders right against it.

Commissioner Talvi - So there's no need to have the separation or any of those complications.

Mayor Hopkins - No, the -- no.

Commissioner Talvi - Yeah.

Mayor Hopkins - So, okay. Just -- Barb, your comments?

Barbara Johnson - I just wanted to say briefly I went to the UAS interest group meeting in Anchorage and it was amazing and we had a lot of industry folks there and ACUASI, and we also had Department of Commerce there. And what Kathryn touched on is exactly what we talked about, is the need to proceed with a feasibility study as the next step for the tech park. And DCCED actually has some interest in assisting us with that, so we're.....

Assemblymember Dodge - Super.

Barbara Johnson - .....very happy about that. It was over-the-top for the support for Alaska from industry personnel and CAE who had visited us in July and August. They had shown extreme interest then. At our dinners in Anchorage, it really does sound like they want to base in Fairbanks and not in Anchorage. So they had mentioned a time line for being here and it sounds like they want to be in the community before the tech park is done, which is a way for them to kind of start up like ACUASI has done, and then physically move to the tech park once it's complete. But they've also been talking with other industry partners about the tech park and going joint with that.

So the discussions on those will continue to evolve. But when someone says they want to base in our city, we don't go out and announce it to everyone, so we're going to just keep cultivating that and pull the pieces together to make it happen and move forward. But that's really, really, really incredible and I couldn't see how it could look more positive than it does right now.

Mayor Hopkins - That's great. All right.

Assemblymember Dodge - What's the status of the business plan that UAA has been working on?

Barbara Johnson - The UAS business strategy?

Assemblymember Dodge - Uh-huh.

Barbara Johnson - They're actually -- they've got a comprehensive draft done and it's my understanding it's going to Joe Jacobson at Commerce and then also the University of Alaska and a few other people to look at it first before it's distributed more broadly for comment. But they've done a great job with it.

Assemblymember Dodge - And it might be released?

Barbara Johnson - On their time line.... I don't know, because I don't know how long people will be given to review it for the initial run-through.

Mayor Hopkins - Okay. Look for a motion to adjourn.

Assemblymember Dodge - Move to adjourn.

Commissioner Talvi - Second.

Mayor Hopkins - Okay. Moved and seconded. Of course, the next meeting will be October 28th here again at 3:30 on Tuesday, October 28th. And so seeing no objection to adjourn and especially before the fire alarms go off.....

Approved: 

Chair Signature October 21, 2014