

Announcer: [00:04](#) Welcome to "Prep Talk," the Emergency Management Podcast. Find out what you need to know about preparedness. Get all the latest tips from experts in the field. and learn what to do before the next disaster strikes from the emergency management department in the city that never sleeps. Here are your hosts, Omar Bourne and Allison Pennisi.

Omar Bourne: [00:25](#) Hello, everyone. Thank you for listening. I am Omar Bourne.

Nancy Silvestri: [00:30](#) And I'm Nancy Silvestri.

Omar Bourne: [00:32](#) And you are our listeners. As always, we thank you for joining us. We want you to come back as often as you can. Feel free to add Prep Talk to your favorite RSS feed. You can also follow us on social media, on Twitter @nycemergencymgt, Facebook or the Gram.

Nancy Silvestri: [00:54](#) On this episode of "Prep Talk," we're chatting with Joshua Friedman, executive director for Geographic Information Systems here at New York City Emergency Management.

Omar Bourne: [01:03](#) That's right. We were talking about maps, specifically how professionals in the emergency management field use maps in emergencies, but before we dive in, you know what time it is. Let us get you updated on the latest news in the emergency management field.

Announcer: [01:22](#) Here's your "Prep Talk" Situation Report.

Nancy Silvestri: [01:26](#) This is the Situation Report. Let's get started.

Omar Bourne: [01:29](#) Thank you very much, Nancy. On today's show, as I mentioned, we are talking about GIS and mapping. I came across this article on gisuser.com full disclosure, Nance. I did not know such a site existed until I started doing research for this episode. But I digress. There was an interesting article about a new night map feature to support campus safety and security.

Omar Bourne: [01:55](#) Basically, Concept 3D which uses 3D modeling, interactive maps, and VR-enabled virtual tour software to create online experiences came up with this new concept, I guess they're Concept 3D, so a new concept. The new night map feature which was actually launched earlier in August makes it easy to find the best well-lit walking routes on a campus. The interactive mapping platform is also used by hundreds of major universities, colleges and schools, as well as convention centers, hospitals,

- Omar Bourne: [02:37](#) resorts, you name it. You can check it out on [gisuser.com](#) for more information. But this is a great example of how mapping can be used in security and just by everyday people. I like the fact that it is a night map, and it really helps people as they're going about their business to make sure they're safe and secure. I thought that was an interesting story.
- Nancy Silvestri: [03:02](#) Another area where maps are critical, flood predictions. Looking for some real-time flood predictions, there's now going to be a map for that. University of Kansas professors help develop a new flood plain mapping model that allows emergency managers to view real-time wide area predictions for floodwater extent and depth.
- Nancy Silvestri: [03:22](#) Flooding estimates are crucial for emergency managers to have enough situational awareness quickly to get the right resources to flooded communities. The new model coming out of Kansas is called floodplain. It maps potential flooding as a function of stage height using basic hydrologic principles and gridded elevation data. Because the approach requires few inputs and supervision, it has significant advantages for real-time mapping. The model is also a simpler approach than the current hydrodynamic models that are used by FEMA.
- Omar Bourne: [03:50](#) Moving from Kansas to the great state of Texas, and this is from Texas A&M University. They recently hosted their second annual Animal Emergency Management Summit, giving emergency managers and those who work closely with animals an opportunity to discuss how they can work together in disasters.
- Omar Bourne: [04:12](#) The summit was started following the aftermath of Hurricane Harvey in Texas. The category four hurricane not only affected communities but also impacted pets and animals, both domesticated and wild. The summit basically brings together veterinarians, veterinary technicians, animal control officers, emergency managers, you name it. They bring them together to develop plans for animals and response plans for animal needs during disasters.
- Omar Bourne: [04:44](#) For our listeners, if you need more information about this story, you can check it out at [kagstv.com](#). That's where we got the story from, [kagstv.com](#). We always love to say that pets are a part of the family. I think this is a great step into trying to include them in the emergency planning operations.
- Nancy Silvestri: [05:08](#) That's right. We can't forget about our furry friends.

Omar Bourne: [05:10](#) No, you can't.

Nancy Silvestri: [05:11](#) Now, moving on to our friends out on the West Coast, the Emergency Management Division of Astoria, Oregon is in its final phases of its Tsunami Wayfinding Project, which is an effort to create evacuation routes to guide people to higher ground after a tsunami. Clatsop County emergency managers began the initiative following the survey findings that residents were not prepared and evacuation route signs were not sufficient.

Nancy Silvestri: [05:34](#) The first phase of the project consisted of community preparedness. The State Department of Geology and Mineral Industries worked with local communities to develop maps and brochures that included evacuation routes. County officials are continuing to work on placing more signs to ensure the safety of the community, so another great initiative.

Omar Bourne: [05:52](#) Yeah, and reminds me of a similar initiative that we have in New York City that we introduced a couple of years ago where we have hurricane evacuation signs that lead people to higher ground, especially in the coastal areas. It was good to see that other jurisdictions are doing this as well.

Nancy Silvestri: [06:12](#) I don't know about the rest of our emergency management friends, but some of us get very excited when we see coastal evacuation signs.

Omar Bourne: [06:20](#) That is true. I'm driving around sometimes, "Oh yeah. There's one of our signs." My goodness.

Nancy Silvestri: [06:27](#) That is the situation report. Still to come, we will be talking with Josh Friedman, a GIS guru in the emergency management field, but first, here's a public service announcement from NYC Emergency Management and the Ad Council.

Speaker 5: [06:40](#) When is the best time to talk to your family about staying in touch during a disaster, when hurricane winds are gusting, when floodwaters reach your door, or a blizzard blocks all the roads or is the the best time perhaps today? During a disaster, you may not be able to stay in touch with your family or friends as easily as you think. Make your emergency plan today. Go to nyc.gov/readyny or call 311. Don't wait. Communicate. Brought to you by New York City Emergency Management and the Ad Council.

Announcer: [07:12](#) You're listening to "Prep Talk," the Emergency Management Podcast.

Omar Bourne: [07:17](#) You are listening to "Prep Talk," and we are back. Joining us in the studio today is Josh Friedman, the executive director for GIS here at New York city Emergency Management. Josh, thank you for joining us.

Josh Friedman: [07:33](#) That's great to be here. Thank you.

Nancy Silvestri: [07:34](#) Josh, let's start with the basics. What exactly is GIS?

Josh Friedman: [07:39](#) GIS stands for Geographic Information Systems. I'd say a lot of people associated with simply making maps. Really, the production of maps is cartography, the science of cartography. If you want to think about what a GIS really means, a geographic information system would be any type of system that is used for the management display and analysis of what we refer to as geospatial data.

Josh Friedman: [08:07](#) Really, that's not as complicated a concept as it might sound like. Think about any piece of information you have. I could write down my name on a piece of paper. That's a piece of information about who I am. If I add one thing and that's something to tie it to a particular location on the earth, whether it's an address, a latitude, longitude, anything that would allow us to map that data, that then becomes geospatial data. My name and my address means that I'm now tied to a particular place, in this case, my apartment in New York City. A GIS, in general, really is the science and the field of obtaining, producing, and working with all of these types of data.

Omar Bourne: [08:56](#) For everyday people, what does that mean for them? Where would they more likely see this kind of GIS mapping?

Josh Friedman: [09:06](#) Sure. I think these days, the example that I usually use most commonly is Google Maps. Almost all of us, whether it's Google or some other app, we have our phones with us. We need to find where to go the best route, the best slice of pizza that we want to get to. We have a geographic information system on our phone. Folks at Google, very smart folks behind the scenes have created a system where they have map data. They have what we might call network data, so streets and highways and things.

Josh Friedman: [09:41](#) I can put it in my address and the address of somewhere I want to go. It will tell me how to get there. These things are a lot

more common these days, but in reality, it's been around for quite a while now. I remember going back a couple of decades, to date myself, I would go shopping in the supermarket, and they would ask me for my zip code. The reason that they were doing that is that they were creating basically a GIS behind the scenes.

- Josh Friedman: [10:08](#) They wanted to know where their customers were coming from, where different people bought in different things, and that would allow them to, I don't know, market differently or stock the shelves differently. I think the transition that we've seen, and we can talk a little bit more later, is what used to be kind of behind the scenes only accessible to certain people is now something that we all really have access to and most of us use on an everyday basis.
- Omar Bourne: [10:33](#) Now, you said that you dated yourself but you didn't give us a time when that occurred. You haven't quite dated yourself yet. What are we talking about? Early '90s here?
- Josh Friedman: [10:43](#) I've been in the fields for about 20 years. I'd say kind of along with the rise of the internet and more recently mobile phones and other devices that's really tracked. The field of GIS traditionally is dated back I'd say at least about 50 years now. But along with kind of advancements in hardware and software and other things, it moved from originally a field like a lot of things related to computing where you needed a huge rooms full of hardware, and only very specialized people could work with this and consume the output.
- Josh Friedman: [11:19](#) As we fast forward through the years, say a couple of decades ago, things were becoming a little bit more accessible and now with phones, apps, tablets, things like that, professionals in the field can be working with data, can be collecting data, doing analysis on the fly out in the field, and citizens can have access and really participate in a lot of ways as well.
- Omar Bourne: [11:45](#) That really speaks to the evolution of mapping, I guess, not only here in the city but across the country, right?
- Josh Friedman: [11:52](#) Yup. Yeah. I think, a few things that come to mind, the availability of data has increased so much. People have the ability to kind of report their own incidents. In the city here in New York, we have a 311 system where people can call in reports of different conditions, a pothole in a street or some other condition. That can be geo-coded, we call it. They will take a location, somebody's address, the intersection that they're

talking about and so we can put that on a map and help direct resources to help fix that problem.

- Josh Friedman: [12:28](#) But people through other social media platforms and such can really participate in creating their own data. We're talking about how the technology has improved. I think that's really key to understanding how widespread GIS is now.
- Nancy Silvestri: [12:45](#) That's exciting to see how much the field has evolved. Quickly to the point now where your average New Yorker is really providing such valuable information to you as an emergency manager, and a GIS specialist that we can ultimately use to help people during times of emergency. Can you tell us a little bit more about the types of maps you produce and how do you use those maps?
- Josh Friedman: [13:07](#) Sure. Maybe, we'll use it as context a mapping and planning for coastal storms and hurricanes. As in we're into August in New York City in this area, we're into what we consider our hurricane season now and for the next few months, we will use maps in our office here to help us understand the risks that New Yorkers face and that the infrastructure that we rely on face. That might be, for example, we have datasets of various types of critical facilities, so the hospitals, nursing homes, and other healthcare facilities, public safety facilities, schools, things that are important that New Yorkers rely on.
- Josh Friedman: [13:46](#) Knowing where those things are in relation to, let's say, potential storm surge from a hurricane that might hit New York City will allow us to plan better, to make those facilities maybe more resilient when it comes to people understanding which New Yorkers might be more at risk from a certain hazard.
- Josh Friedman: [14:06](#) We have an application called the Hurricane Zone Finder, which is accessible to all New Yorkers all year round and this is at its core really a simple GIS. You can go on that NYC.gov website and take a look any day of the year. Find out which hurricane evacuation zone you are in. Find out where your nearest evacuation center would be in the event of a storm. Really, that's a system that has a couple of basic components. We have our hurricane evacuation zones on the map. We have dots representing evacuation centers and similar to Google or other platforms.
- Josh Friedman: [14:45](#) You can punch in your address, and it will tell you what zone you're in. You can then get directions to the nearest evacuation center. I think that's an example for the public where we really want to use GIS and the data that we have available to us to

encourage people to prepare in advance. That's really an important thing we refer to what we would do on blue sky days. It's our way of referring to when there's not an emergency happening. Those are really the best times to kind of make yourself aware of what hazards might impact you and what resources you have to help yourself or your family and your friends should an emergency happens.

- Omar Bourne: [15:26](#) That website is NYC.gov/knowyourzone. I like the fact that you kind of broke it down for me and for our listeners because mapping and GIS, you think of it as a kind of a difficult subject to understand, but in your everyday life here in New York City, you can go on the website and find out whether or not you live in a hurricane evacuation zone. Simple. That's what GIS is. Simple basic mapping.
- Omar Bourne: [16:04](#) I liked that you touched on situational awareness because I think people think about mapping just as using it for huge hazards, but that's not the case. You could just use this to gain information that can help you make decisions, right?
- Josh Friedman: [16:19](#) Yup. We use it here at New York City Emergency Management every day, really. Situational awareness is one of our favorite terms in the business really just referring to having an understanding of the things around that emergency. Like you say, we often think of the biggest emergencies. For us, our office helps respond to relatively smaller emergencies or more localized emergencies on a daily basis. A water main breaks, there's a fire, we have residents impacted. Folks out in the field can see what's going on immediately in front of them, but they may not as easily know that there is a school or some other facility one block over that could be impacted.
- Josh Friedman: [17:00](#) It's our job here to help coordinate resources to help mitigate the effects of those emergencies. We, on a daily basis, provide relatively basic maps and tables of data to the folks on our operations team who go out and help support this response so they can know at a quick glance at a PDF or a piece of paper or a screen, okay, there are these certain types of buildings nearby. There's a subway underneath us. There is other infrastructure in nearby, that maybe the police or fire department has a handle on the emergency in front of them.
- Josh Friedman: [17:36](#) But this type of data and having access to it allows us to start to think, "Okay. What other effects might there be when the sun comes up tomorrow morning, and we want New Yorkers to be able to go about their business as easily as possible and as

normal as possible? What other things might we have to work on?" Having that data really helps us do that.

- Nancy Silvestri: [17:55](#) That's really valuable information for our responders to have at their fingertips. We often say when we hear this phrase a lot in the emergency management world that every response starts with a map, but GIS is not only just about mapping. There's a lot of other components that go into it as well. Can you talk a little bit about GIS beyond just the concept of mapping?
- Josh Friedman: [18:16](#) Sure. I've mentioned data a few times. I think I always like to start with that for a reason. The best GIS in the world, whether you have the best software or the best looking map really doesn't mean much if the data that is on there is not good. We go back to our Google maps example. If I'm trying to find a great slice of pizza-
- Omar Bourne: [18:39](#) You love this pizza, huh?
- Josh Friedman: [18:41](#) I'm thinking that pizza. It's getting closer to lunchtime. I searched for directions to a place, and I get the directions and I get there. But the business that's on the map has moved to another location or they've closed. Now, I'm there, and I'm hungry because-
- Omar Bourne: [18:57](#) Angry even.
- Josh Friedman: [18:58](#) Hangry [crosstalk 00:18:59] I'm well familiar with that. The GIS has worked. It showed me the map. It showed me how to get from A to B. But when I got there, what I was expecting to be there was not there because the data set of restaurants, let's say, was not up to date. We spend a lot of time here kind of the less glamorous behind the scenes work of making sure we have good data at the ready.
- Josh Friedman: [19:23](#) GIS is also hardware and software that we need to run these systems to produce maps and applications. More and more these days, things are moving to the cloud. It looks more like a lot of the current technology that's out there. GIS is always going to involve, I believe, the people component, so folks to actually look at the data, the maps, etc. That the GIS is producing and try and make smart decisions with that information.
- Josh Friedman: [19:56](#) At the end of the day, I think it's really all about analyzing the data, the map, analyzing and using the information that's out there because just as if the example, if I'm trying to go

somewhere in the data about what is in that location is out of date, we'll make it more difficult for me to achieve my objective. It's really all about, in our business, allowing people in the right positions to make smart decisions based on the information that they have.

Nancy Silvestri: [20:27](#) GIS is this really fast growing field. Then, you can just see all of these examples of how the use has skyrocketed, not only among emergency managers and first responders, but also among members of the public who now have access to this type of data through apps and through Google maps and all these things that they interact with on a daily basis. Just like GIS is a fast growing field, one of the other areas that's grown a lot that we pay attention to you in the emergency management field is social media.

Nancy Silvestri: [20:55](#) As we've seen so many more people start to use social media in their daily lives. I think in the emergency management profession, we've tried to do a lot more to communicate with them and to figure out what that information means to us and how we can use people's presence on social media as a way to help during emergencies, whether it's from preparedness or on the response side. When we look at social media, things like Twitter and Instagram and Snapchat, and the list goes on, how can people use maps as a resiliency tool?

Josh Friedman: [21:27](#) I think the Hurricane Zone Finder that we talked about is a great example. That's just one of many, but it is something that ... It's a map that's out there that allows folks to know and plan, let's say, in this case for hurricanes. If I'm a New Yorker that happens to live near the coast and I can look at a map and when we say a picture's worth a thousand words type of thing and understand that I face a heightened risk from storm surge and threats from coastal storms, that can allow me to become better prepared, make choices to have supplies on hand or make a plan with my family and friends about where I might go if I had to leave my home for a little while.

Josh Friedman: [22:09](#) I think these social media platforms also allow those of us who work in the field to have access to data that is being collected by citizens in real time. Folks now, every time there's an emergency on all these platforms, we will see photos, videos, tweets, reports. There's a lot of data out there which is a challenge to figure out how to use it. That's part of where the field is evolving.

Josh Friedman: [22:34](#) But I think as well, you mentioned earlier in the situation report segment about the Concept 3D program to provide maps for

safe routes on campuses. I could imagine that people putting that together would go out in a campus maybe and look at the lighting and the path network and all that, but conditions can change rapidly. Maybe some light bulbs are out, for example, something as simple as that. Citizens could give feedback to the people running the program to say, "Okay. This is for this week until this is fixed." This is the less safe route because there is something wrong with the lighting or there's some other condition that makes it less desirable to use that route.

Josh Friedman: [23:16](#)

I think if you spin that up to any type of emergency, large or small, that's something that we will come to rely on more and more because we do not have thousands of people to go out, take photos, report on these conditions, get there exactly when the emergency might be occurring. But citizens who were there and have these resources will be able to provide that information that we can use.

Omar Bourne: [23:40](#)

It's something that I think of ways when you talk about that and how they've kind of mastered having people interact where people can give information about if there is a pothole or an emergency that may cause delays or a collision or accident. The interaction between people and the GIS system really adds to its utility. Go ahead, Nance. Sorry.

Nancy Silvestri: [24:12](#)

I think it's a really exciting time for people just everyday users, whether you're on Twitter, or Instagram, or Facebook to share information that is actually going to contribute in a very meaningful way to both emergency response and this concept of situational awareness that you've been talking about. But just to know that anybody using their regular platforms of communication can now reach government officials and emergency managers in real time with information that we find to be critical and can use to make more informed decisions. It's such an empowering role for everyday New Yorkers and tourists and everyone in between.

Josh Friedman: [24:48](#)

Really, I would say the more people that do that and provide that type of data, the more valuable it is. It presents its own challenge. We were referred to kind of taking the equivalent of drinking out of a fire hose if you imagine that, [crosstalk 00:25:01] difficult concept, because there's so much data out there, but really in those, especially in the early moments after an emergency, and I believe Waze does a similar thing. One person reports an accident, and it might show up.

Josh Friedman: [25:14](#)

But the more and more people that report that same accident or that same traffic jam kind of the logo gets bigger on the map.

We in the field can have a sense if a lot of people report something in the same area, we have a higher confidence or can place a higher priority on going to respond to that. I think that is important. New Yorkers and others can feel definitely that they can play a role in helping provide information to help us help make New York safer.

Omar Bourne: [25:44](#)

Yeah, and not only just in New York City. I mean anyone, anywhere, whether you're in a different part of this country, different parts of the world and you are listening to us in the Caribbean or Africa, wherever, you can have the opportunity to interact and use the technology and the resources to play a role as well. We've looked at the history of GIS. We looked at where we are now. We discuss how technology is continuing to improve and develop, and we talked about social media. Where do you see GIS going in the future?

Josh Friedman: [26:29](#)

I think it will be even more accessible to more people in the future. I think like a lot of other things, I imagine it mostly living in the cloud and being accessed and used by people more and more beyond the core profession. I think that's one of the things that those of us who work in the field have noted that putting together say a map online, like the Hurricane Zone Finder is becoming something that folks who don't have the same specialty training are more and more able to do.

Josh Friedman: [27:05](#)

Even though I have some years of training in the field, I can now do things that it used to take someone who knew all about coding to put together and the tools are out there for me to do that type of thing myself more. We kind of talked to about self-help GIS. We've seen in the past during Hurricane Sandy I think is one example. We had citizens or other folks who were kind of standing up their own maps to try and amplify messages that we were putting out or represent data about things that were going on in their communities.

Nancy Silvestri: [27:41](#)

You've been in GIS for a long time. What is your favorite map or your favorite GIS project that you've produced or worked on?

Josh Friedman: [27:49](#)

I would say for me, it would be the development of the hurricane evacuation zone. I'm kind of a weather geek. I like thinking about and learning about these things. It's a balance that a lot of us in the profession know. We plan and prepare for events that we hope will never happen.

Josh Friedman: [28:07](#)

But there is something that I like about just kind of having understand the hazard. Going back about six years now, New York City released updated hurricane evacuation zones and my

role was helping look at the model data about where storm surge might go in the city and translating that into the map that folks would see today if they go on the Hurricane Zone Finder or they look at some of our preparedness materials for coastal storms. I think that's kind of the thing that I enjoyed most and most proud of.

Nancy Silvestri: [28:42](#) That was a long project that began six years ago. Can you give our listeners a sort of behind the scenes look at what exactly did it entail for you being able to pull together those zones and what was that process like and why was it so gratifying for you?

Josh Friedman: [28:58](#) Sure. It starts, in this particular case, folks at the National Hurricane Center who are the scientists and the experts behind understanding coastal storms will produce some data that it's called the SLOSH Model. For those who are interested in getting in the weeds, that will show their estimation of where storm surge, where the water that's being pushed to shore by a hurricane might go. But what they don't take into account just because of how their modeling works and the fact that they're doing this for everybody from Texas up to Maine, they don't know about all the little features of New York City that the kind of details of our landscape, the impact that buildings would have.

Josh Friedman: [29:44](#) What you get is a map that if we put it out there for folks, it would be really hard to understand. It'd be all these different colors all over the place. They'd be going through the middle of buildings. At the end of the day for us, it was really going block by block throughout the entire city to really look at this information and try and make smart decisions about, okay, this block needs to be in zone one, this block needs to be in zone two. How do we map this out, so we don't incorporate more people than necessary, but that we're sure as we can be that if a certain type of hurricane hits and we feel that a certain area has to be evacuated, that we will capture the correct number of people in the correct locations?

Omar Bourne: [30:28](#) Meticulous process.

Josh Friedman: [30:30](#) It is.

Nancy Silvestri: [30:31](#) But incredibly important. Thank you for that. As a result of that long process, now New Yorkers can have a very, very easily understandable map to figure out what zone they live in and what their risk is for coastal storms. Thanks to you and the team for pulling that together and working and sifting through all of

that data to come up with these updated hurricane evacuation zones.

Omar Bourne: [30:55](#) Josh, this is a great conversation that we're having. I have one final question for you here. What would you tell your younger self about GIS and getting into this field, not just your younger self, anyone who's listening to an emergency management podcast who might actually be interested in getting into the field or just GIS in general? What advice do you have for them?

Josh Friedman: [31:21](#) I mean I would tell my younger self that you're making the right move going into GIS. I would encourage anybody out there who's thinking about that to do the same. Obviously, I'm a little bit biased.

Omar Bourne: [31:33](#) That's okay.

Josh Friedman: [31:34](#) I do think it's becoming more accessible field. It is also challenging as more and more technology is available at our fingertips. The number of things that we have to know and learn keeps expanding. I think that can be a great thing because it keeps us challenged, keeps us on our toes, needing to learn new things.

Josh Friedman: [31:53](#) I think also the great thing about GIS and geography, in general, for those listening out there is it really is tied into almost every aspect, profession and field of our lives today. I found, for example, at the beginning of my career, I was not working in emergency management. I was working in a GIS firm working with communities to help work on planning projects and things like that.

Josh Friedman: [32:18](#) When I came into Emergency Management GIS, I really found something that was inspiring because it allows me to feel like I'm helping make a difference, a positive difference hopefully in the lives of the people of New York where I live. I think that's maybe the one thing that I would say is that whether it is emergency management that you're interested in, and that's hopefully folks listening to us today, but whether it is any number of other fields, the medical profession, economics, the marketing, whatever it might be, everybody is using GIS. I think it's a great field and a great opportunity.

Nancy Silvestri: [33:00](#) Yeah. I would say to our younger listeners, if you're looking for an exciting opportunity and a fast growing field, certainly consider GIS. It's been very enlightening in helping to explain a

lot about what you and your team does here at in New York City emergency management. Thank you for that, Josh.

- Nancy Silvestri: [33:16](#) Now, it is going to be rapid response time. If you're a first-time listener, it is simple. Omar and I am going to ask some questions, and Josh is going to give the first answer that comes to mind.
- Announcer: [33:30](#) It's time-
- Announcer: [33:30](#) For "Prep Talk" Rapid Response.
- Omar Bourne: [33:34](#) All right, let's get into it. Rapid response. Our first question, this is one that we ask all of our guests, what is one emergency item you cannot live without?
- Josh Friedman: [33:45](#) I'm going to say my water bottle. For those who know me, I never go anywhere without it. I have it next to me now, on the train, at home [crosstalk 00:33:54].
- Omar Bourne: [33:54](#) I want to say that the water bottle or water is probably our most popular answer, right?
- Nancy Silvestri: [34:01](#) Yeah, absolutely. It was an easy guess for Josh. If you've ever been to our office or seen him, you've seen the water bottle. All right. Josh, what are your hobbies?
- Josh Friedman: [34:12](#) My hobbies? I will say skiing and tracking and listening to airplane. That's a little more unusual.
- Omar Bourne: [34:20](#) No, no, no, no, no, no. It's not because interestingly enough, like I'm always fascinated when the airplanes fly by. I'm like, "Oh my gosh. This is just fascinating how these big pieces of metal can just fly in the air and take you from destination to destination." I'm totally there with you. I might be trivializing it a little bit, but-
- Omar Bourne: [34:47](#) Oh no. I use the GIS to do at least part of that. There are apps these days that allow me to look at my phone and see all the planes overhead, what type of plane it is, where they're coming from, where they're going to. In New York, where I guess in my case, I think lucky enough to have three major airports plus a few smaller ones right around us. There are always tons of planes in the sky. It's an interesting look.
- Josh Friedman: [35:12](#) Maybe one day at lunch, we can go outside and just stare at planes.

Omar Bourne: [35:16](#) Absolutely. We have the LaGuardia approach right over our heads [crosstalk 00:35:20].

Josh Friedman: [35:19](#) There you go.

Omar Bourne: [35:20](#) ... office. What is your favorite disaster-themed movie?

Josh Friedman: [35:26](#) I have to say I don't watch disaster movies.

Omar Bourne: [35:28](#) Really?

Josh Friedman: [35:28](#) I think maybe in part because kind of disaster work, disaster preparedness is my job. Generally, I skew towards comedies, kind of use movies as a little way to relax. I'm certainly not disaster movies. I would think of a "Spinal Tap" and "Blues Brothers" would be the ones that I could think of. There are a lot of car crashes in "Blues Brothers." I don't think that quite counts as a disaster movie, but-

Nancy Silvestri: [35:55](#) All right. What's currently on your playlist?

Josh Friedman: [35:57](#) I have to admit, I don't actually have a playlist. I'm really flunking the questions here.

Omar Bourne: [36:01](#) No.. It's all good.

Josh Friedman: [36:04](#) Yeah. Although I use tech every day, I'm short of a little bit behind the curve compared to most people, I would say. But, generally, in terms of music lately, I've been revisiting some music from the 90s, from my younger days, some drum and bass house, folks like Dieselboy and LTJ Bukem. I don't know how many of our listeners would know those, but if you're interested in some good old school beats, go to YouTube or any other platform and take a listen.

Omar Bourne: [36:34](#) I have one that we were actually talking about this before we came on, so I'm going to add it to the rapid response question. Breakfast. What does your breakfast look like?

Josh Friedman: [36:45](#) My breakfast looks like three hard boiled eggs, a couple of chicken sausages and oatmeal, and of course an ice can of cold brew coffee.

Omar Bourne: [36:59](#) You're going in a different direction with that cold brew.

Josh Friedman: [37:03](#) Well, later in the day. Later in the day.

Omar Bourne: [37:05](#) That's after work. That's breakfast during the week. You mentioned breakfast on weekends. How is that a little different from your breakfast during the week?

Josh Friedman: [37:13](#) It's completely, totally different. Usually, I don't have the sausage. What can I say?

Nancy Silvestri: [37:20](#) Just a little less filling.

Josh Friedman: [37:21](#) I find something that works and I stick with it.

Omar Bourne: [37:23](#) There you go. Sounds good to me.

Nancy Silvestri: [37:25](#) It's a good quality. All right. Sum up the work you do in one word.

Josh Friedman: [37:30](#) I think I will say rewarding, kind of touched on that. I feel like I get to work in a field that inspires me. I love to look at the world in a spatial way and finding a way in emergency management to use that to help New Yorkers and help other folks, I think, is really satisfying. I think the field in general, those tend to be rewarding for most folks.

Josh Friedman: [37:54](#) Somebody told me earlier in my career, who I work with said that if you walk into a room full of GIS professionals, you're never going to see a bunch of people frowning. I think for at least over 20 years for me, that's definitely been the case.

Omar Bourne: [38:07](#) Well said. Thank you very much for being on the show with us and enlightening conversation. I think just for you to be able to talk about how people use GIS in their day-to-day lives really helps people understand how much this does impact them. We thank you very much for being here. For our listeners, if you want to learn more, NYC.gov/emergencymanagement for the website, NYC.gov/knowyourzone for the hurricane finder. Thank you for joining us. That's it for today. Nancy, anything else you want to add?

Nancy Silvestri: [38:50](#) Thanks, Josh, for sharing your experience. We learned a lot about GIS today. I'm sure our listeners are very appreciative for your time, and I know we are here as well.

Announcer: [39:02](#) That's this episode of "Prep Talk." If you like what you heard, you can listen any time online or through your favorite RSS feed. Until next time, stay safe and prepared.