

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

AN INTERVIEW WITH KEN GRAHAM
FOR THE
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Greg Romano: This is an oral history interview with Ken Graham, Director of the National Weather Service. The interview is taking place on Monday, December 12, 2022. The interviewers are Greg Romano and Mary Fairbanks. It's a remote interview with Ken in Silver Spring, Maryland, Mary in Columbia, Maryland, and Greg is in Buckeye, Arizona.

So Ken, we are going to dig into this where we left off our last session. You were moving to headquarters, so what we want to hear a little bit is about what positions you were holding in headquarters, what the differences were that you first felt between working in the field and regional office and then into headquarters, and then we'll move on to some other topics while you're there. So let's start there.

Ken Graham: Yeah, it was an interesting time because there were a couple of teams built to start thinking about the future of the National Weather Service, and it was a new concept. It was already going on, this whole deployment to an EOC (Emergency Operations Center) and doing more than just issuing the forecast. It was about concentrating on what matters. There wasn't the terminology, "impact-based decision support." There was no IDSS, so to speak, but there was this field underswell, so to speak, of "we got to do this, we got to do this more often". So some teams were built, and at the time, it was controversial. It wasn't an automatic thing to be able to say that's the most important thing. I mean, look at it now. It's even in our mission statement, but back then it was something new, and it was really the whole -- the whole thought was focusing on the impacts.

You know, the whole thought was, well, we can still make improvements in the models where the models keep getting better. Where we could really make a difference is really talking about those impacts. So these teams were put together, but it's an interesting situation because there was this whole field effort to say, well, this is about the impacts, converting the science over the impacts, but there was another group of folks that thought it might be an incredible opportunity to maybe look different, maybe centralization or combining offices, and there was this thought of you can have these -- go back in time to pre-modernization where you had the larger office and the satellite offices. So what happened in that situation was fascinating. That structure of the weather service got out ahead of why we were doing it. And, that's what happened, and it went really south. So there was -- I'll never forget it. It was a day -- it was an MIC-HIC conference in Fort Worth and then the -- at that time, the deputy director of the Weather Service, the DAA, John Jones came up and said, "Hey, [we're] not really going in the direction that we want to go. Will you come up and help us?" And that's how that went down. I was pacing the hallways, pacing the hallways. What do I do? I really wasn't at that current position very long, but it was an opportunity to really have a field position, a field person up here at headquarters to really set the record straight, to really alter the path of what this was really about.

So that was it. Greg, I jumped up here as the Met Service chief at the time and worked on the 18th floor, was able to do some of the things that we talked about with the messaging. It's interesting, we could talk about it, too ... It was really pushing the limit and trying to steer it, but the forces were pretty strong in the structural part, and the whole thing kind of fell apart. But the good part is, though, is the fact that the culture did start to change. There was -- even in the

messaging of we need to do more of the impacts, more face to face with the decision-makers. Even at the time, we bet the culture a little bit despite the overall plan not getting really anywhere.

GR: So is this called the con-ops, or concept of operations?

KG: That was it. That was -- they couldn't separate the fact -- I came up here desperately trying to say, "Don't worry about the structure. That is not the issue. The issue was we got to focus on the right things." And some of the proposals, while I was up here, were out there, right? They were out there. Like there was so much effort here at headquarters on every grid element. Literally, let's look at dew point next, and let's spend the next year evaluating dew point grids and making them official. There was so much effort on going line by line on all these things when the field was just using them. In the field, we were already just using all the stuff, oh, yeah, official, not official. It didn't matter to us at the time. We were just getting the job done. So coming up here, it really felt like swimming upstream a little bit, really trying to alter the path of that con-ops and say, "This is about what we do. Can we please focus on what we do?" And that's how all that went down. It was an incredible experience, taught me a lot.

GR: Con-ops is considered ill-fated, I think, and there were some issues with it, and obviously, the structure piece was a big part of that. Were there other forces that were -- that this sort of meant that that wasn't going to happen in the future?

KG: Yeah, I think there was just this whole -- I mean, it's something that I'm working on, even today, the division between our headquarters and the field. I'm desperate, and in my current role as director, [I'm] really trying to bring that together because we really are on one page. At the time, there was a significant amount of distrust. There was distrust between the field and headquarters. The union was involved with really looking at, well you're really trying to centralize, so we're going to fight this no matter what. And even those discussions, that this is what it's really about, it was difficult to be able to turn the corner on what that really was.

GR: That was going to be a question, support of the union, and you've addressed that. So they were fighting it as well.

KG: Yeah, absolutely. They were fighting it, and then in turn, the emergency managers were fighting it. It was a lost cause not too far into the process, because it is about messaging, and I say it now. You have to message things how people understand right from day one. You have to have the union in the door, on the teams from day one, and that's why we're doing this differently. It's not about the structure. I'm not worried about that at all. It's what we do, and we could get into that later on, where we're going currently in the weather service, but that's why I'm so focused on doing this right. It's about what we do for a living and doing what's most important. I'm trying to save the jobs. There's no effort to get rid of jobs. We're trying to save them. We're actually trying to grow.

GR: Got it, got it. So then, Mary, you want to pick it up from here?

Mary Fairbanks: I do. Thank you, Greg. So switching gears, you spent some time at headquarters and then had the opportunity to go back to the field, specifically to New Orleans. So what actually brought you back to the field?

KG: Yeah, so it's an interesting thing when you -- there was something called the "corporate board," and it was basically the senior leadership and the agency. It was an interesting -- it's an interesting environment that what was said in there wasn't necessarily staying in there. Back then it wasn't cell phones. Everybody had those little pagers, those two-way pagers, and you can see something -- somebody brings something up and everybody's down on their pager. I mean, it was an interesting thing to watch.

So I brought up some things that are -- that were interesting. I brought up things looking at how can we modernize the weather radio, brought up things about how do we let go of some of those grids and start thinking about really deploying people more. Sound familiar? Some of the stuff that we're trying to do now, and so I think it was -- there was also a proposal that didn't go over very well about how healthy it would be in the organization to redistribute some of the headquarters folks. They could still be headquarters folks, but they could run some of the programs co-located with [National] Centers and WFOs and you could redistribute folks and they could work on policy, but they're also on the frontlines to see what's really needed and really relate to what's needed and, heck, maybe even pull a shift here and there to really see the latest and greatest.

All that seems fairly basic in today's terms, but that was really out there back in 2006, 2007, 2008. So that was an interesting day that I really was trying to push forward thinking about partner requirements and had some help, but it really wasn't universal at the time.

And there was a day when I was asked, "You don't seem too happy at headquarters." I said, "Well, I'm fine." And then it was, "You don't seem to fit very well here at headquarters." I said, "Okay." And this is -- we can say anything in these, right? Yeah, here we go. And it's all history. It's all part of history. So there was a day when, put on a piece of paper were three offers. It was the regional director, Alaska, it was MIC at New York, and MIC at New Orleans, and at that time, I said, "Well, I bet I can make a pretty big dent in this whole decision support thing," which didn't have a name yet. I bet I can make a big dent in that if I'm out in the field. I'm going to do this stuff anyway. So I said, "Send me home." So I went home to New Orleans and spent 10 years there, subsequently. So how about that, huh? Isn't that an interesting day?

MF: Yes.

KG: By the way, all that happened while I was at the Federal Executive Institute, the FEI class, so the phone calls were going on while I was getting all this leadership training. I'll just say it was just interesting to hear all the leadership training and that even helped me make that decision, knowing where I can make the most bang for the buck, so to speak.

MF: Oh, I didn't even know that. That's great. Now, when you -- when you arrived at New Orleans, and you said you could really make an impact there, obviously do the things that you were trying to do, or at least change at headquarters, what key issues did you deal with down at the New Orleans office, and in particular, also, what storms were there during your 10 years that really made an impact?

KG: I think the biggest thing with showing up is being an intern and a forecaster at that office, I knew most of the people, so it was literally going home. And then I just remember that first all-hands meeting, sitting in the conference room going, "You know, let's ... what do you want to do? Let's leap out. Let's leap out and do some things." And we collected ideas on day one, and it was interesting because that was 2008 and it wasn't -- it was the first week, second week, we got hit with Hurricane Gustav.

So right away, in my first couple of weeks in New Orleans, [we] got hit by Hurricane Gustav, and then it was Ike after that, so you had two in a row to see the operations, really see how the state worked, how the office worked, and that sort of thing. So that was a perfect opportunity because I can say, "Wow, I can see this in action. We can put together some things, how we might want to do things differently," and we did. We did.

We went down this road to say, "Let's leap out there and really go with emergency managers." So we met with the state, we met with some parishes, we talked about how we could revamp operations statewide. We went together. We didn't go alone as a weather forecast office. We worked with state emergency management, and there was implementation of task force calls for hurricanes. There was implementation with the governor, with an oversight meeting where you can actually go to Baton Rouge and give these briefings with the governor. [We] implemented that, the first office in the country to do a weekly briefing on Thursdays, at 2:00 every Thursday. I don't care if there's weather, water, or anything or not, we're going to do it. And those that are - - were worried about giving those briefings could use a perfectly nice beautiful day to give a really short three- or four-minute briefing to be able to practice, but the key was getting them involved.

Everybody had to do it. If you're on the shift and you draw that shift, then guess what, you're doing the briefing. It was just amazing to see "Let's go down this road," implementing emails prior to severe weather, implementing graphics to send out, having standardized graphics with an event coordinator. I mean, we leaped out, and I think about Hurricane Isaac. We deployed seven people out of the office, an unprecedented type of thing to send that many people out of the office to go with emergency management in Mississippi, emergency management in New Orleans, and emergency management in Baton Rouge for the state. Leaped out, got them out there, and we went 12-hour shifts. I wasn't in charge. We had an event coordinator, 12-hour shifts, and I said, "Put me to work" type of thing, so we leaped out. We had roles for everybody, clear roles. We even had decision support level, impact level in our AFD, in the area forecast discussion, had levels of colors and stuff that activated a certain number of staff depending on the activation. We leaped out, and then it got -- we got to the pilot project and we even went further at that point.

MF: So I'm curious, because you're coming in and you're really sort of forward-thinking. Were the rest of the staff at the office all on board, or was it kind of split, or was everybody like, yes, let's just go forward with this?

KG: I thought they were ready. Yeah, I mean, I really thought they were ready. There's always some discussion about the details. It's the same now, right? It's "Here's where we're going to go. We're going to take this to the next level." I think some folks were worried, "Well, what about the science?" And we proved really quickly there's more science needed than ever to be able to do what we're doing. I think people were nervous about stepping away from the computer and getting in front of a camera or getting in front of the microphone and giving the briefings and that's why we set it up where, "Don't worry," you know, "You'll have a chance to do smaller briefings."

But we did something different, which I think, as I look back at it, is interesting. We really found out who wanted to do what. We had a list of people that wanted to be that event coordinator. The event coordinator, you're looking at staffing. You're the only one that creates the briefing package, only one package, so all those people deployed, everyone's using the same PowerPoint, which is kind of interesting. Everybody was on the same page. We had people come up and say, "Ken, I'm absolutely petrified to deploy. I'm petrified at all of this. Can I just do the grids?" And you know what my answer was? "Yeah." So we did it. We had a couple of people that really just said, "Put me in front of the grids." You know why? Because the grids needed to get done. So we had a couple of people, 12-hour shifts, you focus on the grids, put your headphones on, and pretend nothing else exists in the world. We did that. And we had a radar person. We had the -- we put together roles, and if somebody wanted to get to the next level in a role, we trained them for the next event and put them on there. What are they going to do, right? Try them out. You're not going to break anything. So we said, "We're going to give you a shot. You're going to be the event coordinator, and give it a shot. We'll help you through it." So we grew people that way into some of the other roles.

So I look back at it, that was -- that was pretty forward at the time. You really put in people where they're most comfortable and where they do the best job, because here's the reality. Unless you're -- I mean, this is a harsh reality, but it's real. You got to be trained and really be comfortable if you want to deploy to brief the governor or brief the mayor in New Orleans. You've got to be comfortable in these roles because what you say impacts evacuations, impacts resources, impacts a huge amount of things. You could say three or four sentences and they evacuate a hospital based on those words. So we really, really wanted to make sure people were trained and ready and I think people sometimes wanted to be in some of those roles, and I have to say "You're getting there, but we're not going to this time, but we'll get you next time. We'll get you ready" type of thing. So it was interesting. I look back at it, it's funny you asked that question, as I look back at it, it was pretty interesting what we did.

GR: When you talk about the roles, for our listeners, establish for us the time frame where you were -- when you were an MIC, because you mentioned Gustav and Ike, and remind us where

we were in the time frame of when you were in MIC.

KG: Yeah, so I got to headquarters in '06 and I -- so it was '08 when I went to that Federal Executive Institute, and it was '08 when I was offered the secret little piece of paper to go elsewhere, and so that was 2008. So it was the summer hurricane season 2008, and upon my arrival, here we go, have Gustav, have Ike. It was a blessing, honestly, because I could really see the situation, and it was a different culture. It's nothing -- there's nothing against anybody, the things that I say. It's just culture, right? And it was -- basically, it was only management that could do the briefings for emergency managers and that was the culture back then. You know, going back ... you go back to the '80s and '90s especially, if you weren't management, you weren't briefing partners, right? So that was one of the earliest things I broke down. That's like that's -- you know, you can't do that because you can't do as many briefings and there's other people that have incredible knowledge. So that was one of the wonderful things, to be able to observe, in that first event, to say "That's not the way I really want to do that. This is going to be a whole-office concept." And that's where the term came from was, us in New Orleans.

GR: Gotcha, gotcha. So a couple years later, Deepwater Horizon. Talk to us about that event, how you were pulled into that, and your role. That was certainly a big event for the Gulf area, and certainly for New Orleans, but also for the nation as a whole, and for NOAA.

KG: I was actually -- it's interesting, I was -- I'm a little fuzzy on exactly where it was. It was either an MIC-HIC conference or -- it had to be, because I was an MIC. So it was an MIC conference at the time. I think it was up here. Was it in D.C.? It's interesting. So I remember being at this leadership conference, MIC-HIC conference, and then seeing the reports coming in of an explosion and an oil spill, and I kind of observed it, looked at it, and it was interesting coming with from what I believe in and what we should be doing when it relates to IDSS. It was in the middle of this meeting and I notified everybody, "I'm leaving." That happened. It's interesting. There's some fuzziness with exactly where it was, but I can see the group and I can see some of the MICs going, "This is big," and then I said, "This is big. This is big-big." I left. So I actually left the meeting, flew back to New Orleans, and got back to the office and "Let's huddle. What are we going to do?" And they said, "We got to leap out. Talk to some of the emergency management -- managers' at Terrebonne Parish, Plaquemines, some of the others along the coast, and they said, "Man, this is going to be big. We're going to need a lot of help." So I said, "Let's do it. Let's deploy."

So we deployed. At first it was to the EOC. I think it was in Houma, Terrebonne Parish, and we were doing some of the briefings, because you think about it, oil on the water, underwater, you think about smoke, you think about dispersion, you think about helicopters, people on beaches, people trying to do the cleanup. Everything has to do with the weather, and it was an incredibly active severe weather summer, one of these that -- a significant amount of tornado warnings. It was just incredibly busy when it came to convection, and interesting enough, it was hot. So we even adjusted our heat criteria because people were coming from all over the world and they had to wear these big old suits, these hot suits, and they were keeling over. They were falling over on these beaches, heat exhaustion. So we lowered, big-time lowered our criteria, worked

with the media to help us get that information out there and 5, 10 degrees lower on the heat criteria to issue the heat advisories. We were very serious about that.

So there was a day that they set up the incident command in Houma, and just huge, I've got old pictures, all sorts of pictures inside that room, big room, hundreds and hundreds and hundreds of people. You manage a shift change involving about 400 people. It was something to see, it was something to see. I've never seen anything like that before. And interesting enough, we kind of felt on the periphery, we had two people deployed at the time, we felt on the periphery of the entire event, but once they saw what the weather service can do, they said, "We don't only want you in this EOC briefing us on weather. We want you at the head table." That happened.

So we went from that EOC in Terrabonne Parish into that big incident command center. This is a big national event. The President declared this -- President Obama declared this one as a spill of national significance, which really opened up a lot of resources, opened up a whole different aspect of the federal support, and we jumped in. From that point on, we did all the weather briefings. We were at the table. Two amazing individuals were deployed to do that, those briefings. They got overworked and we sent two more. In the end, they probably were overworked the whole entire time. And it was just so, so intense. It was just absolutely intense. The severe weather, presidential visits, helicopters. There were times in Slidell, at the office, we closed the dampers on the HVAC system because you could smell the burning of the oil. It's just really interesting to go back and look at that stuff.

And it was interesting because at the time, Admiral Thad Allen, it wasn't just about the severe weather, it was truly about when are the windows of no weather, so to speak, right, is there such a thing, where they could cap, do the cap. So we were constantly looking for places to be able to give a break, to be able to really do what they needed to do to cap the well. Remember, it's tropical season, too, so there were times, seven, eight days out, they're begging, "What's going to happen," right? And this, look, the standard weather service answer was "Too far out, we don't know," right? I mean, that's our culture. The problem is, when you got 20, 30,000 people responding to this thing, it takes a little time to get them out of there. Anybody that's not on the shore has to be asked to be helicoptered out. Think about that. All those people have to be helicoptered out, so you need notice on that. And I remember -- I just remember in the middle of the night, again, we were working 18, 20-hour days, and in the middle of the night, we got questions about "What's this system going to do?" You know, the models were bringing it into the gulf. What's it going to do? And I just remember calling the National Hurricane Center and trying to get information, and I was -- it was very -- I was very clear that "it's too early to tell" is not an acceptable answer, and we were able to work out a solution and some sort of talking points to give them, and they did do some limited evacuations, and it turned out to be a system, but not incredibly impactful, but right after that system was the one-week window that they needed to cap the well.

So there's so many stories about deploying IMETs coming in, and I do want to give a big shout out here. This is a big deal, is the fact that that was probably the most aggressive -- I don't think we called it "IDSS" at the time -- probably the most aggressive external support in our agency's

history, because of the longevity of it, but there were hundreds of people that backfilled our staff in Slidell that were deployed from all over the country. Really, you look back at it, it really kicked off what we know now is a lot of this deployment. Deployments were going on, but not to this degree, and hundreds of people, think about it, flew in, pulled a pay period of shifts at the Slidell office to cover for those that were out. That was amazing, and there were people from all over the country just to be happy for that support. When we called for volunteers, there were hundreds of people that said, "Count me in." It's just absolutely amazing to look back at that.

I will say that it was interesting that some leadership at the time were a little upset that the people deploying weren't going on the frontlines, and I always joke about this. You can't deploy to New Orleans unless you can pronounce the word "Tchoupitoulas." So you got to be able to deploy the people that are most familiar with that locale and that's what we did, and we had an incredible amount of backfill. I can tell you, it's probably still today the most stressful event I've ever worked in. I worked a lot of hurricanes, a lot of hurricanes, a lot of tornadoes. We can talk about the tornado that took out the National Finance Center. There's all sorts of events that I could talk to. That one there was the amount of hours, the amount of time, and there was so much adrenaline -- we don't have to get into this, but I'm open with it now. There were health issues afterwards. There was so much adrenaline that you can't shut down after working that many hours, that much intensity after six months, literally just chilly extremities, just numbness, just so many interesting things, and it turned out it was purely stress. It was literally so much chemical to be able to bring to the fight that you couldn't come off of that for months. So I look back at this stuff and it's a real testimony, even today, when we put people first, and I think some of my personal experiences make that so passionate, to make sure our people are first.

GR: You mentioned the tornado that took out the [USDA National] Finance Center. You know, one of the things that you and I did several years back is you -- I was working with GSA and you came to do a talk on customer service and about IDSS and how that was important -- how that played an important role in that tornado event. And, I remember, Ken, you got up on stage ... you had the lavalier mic on and you just told stories. I also remember -- I also remember that there wasn't a dry eye in the room when you were talking about that, and I think some of those stories really reflect on what the weather service does, but also what you and the team in Slidell did during that tornado. So perhaps you can talk about that for a little bit.

KG: Yeah, that one there was -- what wasn't really understood at the time going back to the 2006-2008 era wasn't fully understood, but the field was doing it, was this IDSS. It begins years ahead of time. It begins years before the event. It's about -- it's about gaining trust. It's about working these big events and having that relationship way ahead of time, and that's just absolutely everything. It's paramount. That trust is everything. And it's one of these -- and Greg, I don't remember some of the stories I told in the last round. I should have wrote them down, but, I mean, I just look at during the time in Slidell with Hurricane Isaac, and then I'll get to the tornado. Hurricane Isaac, I gave two briefings on Hurricane Isaac. Nobody was really taking it seriously because "it was Category 1. We've been through this before we're coming off of Katrina, got Gustav, we got Ike, we got all these big storms. We should be able to handle this little Category 1."

Here's the problem. It was huge in size, larger than Katrina, larger than Katrina in actual size, and the other part, it was only moving about three or four miles an hour, and at one point was probably more like one or two. So as a result, the forecast was 14 feet of storm surge and 24 inches of rain. So the first couple of briefings, I just, with the governor and everyone, nobody was really taking it serious, and I just [felt], "What am I doing wrong?" I was beating myself up. What am I doing wrong?" The third briefing, I gave the same exact briefing. This time, you saw everybody scrambling, Greg, I mean, there were Blackhawks flying. There were tarps moving. They were really ramping up, and I'm watching this room going, "Oh, my God, what have I done? I think I did good, I think." But afterwards was interesting. I asked the governor, I said, "Governor, you got a second?" He said, "Yeah, Ken." Said, "Hey, that was the same briefing. What was different?" He goes, "Oh, oh, you were scared. You were nervous in that briefing, and that made, that made me nervous." Take that in, because what that is, that shows you that relationship and that trust is earned way ahead of time, so you know each other. He read my body language. My voice cracked. He knew I was upset, and I think if -- I think I've matured to the point today I look back at it and even the first couple of days I should have said, "What part of 14 feet and 24 inches of rain don't you understand here?" I think I have more confidence now to be able to do that. I didn't back then, because I was like "I got to convince them" type of thing. I would be more direct now.

Go to the tornado event, it was -- look, to have three to four -- I don't remember what we had. EF-3 tornadoes that far south; it's not common. Not too common in south Louisiana. Everything that spun up started to rotate and they were -- they were multi-vortex tornadoes. It was a rare event in south Louisiana. So we briefed everyone early in the morning. Typical down there, you don't get a -- sometimes you don't get the best notice down there. You have big events that don't happen. You have little events that overachieve. It's a tough place to work, even in my discussions with Storm Prediction Center. It's just a tough area. So we ramped it up, did the briefings, got everybody ready. So this is a historic day on tap, and it was interesting because it took out the National Finance Center, big tornadoes, but St. Tammany Parish, I remember one cranking up and it just started, just an incredibly impressive storm. We already saw it on radar, but because we did the briefings, because we had the trust, St. Tammany Parish, the emergency management director already did a call with all the schools and said, "Hey, we need the radios on. Everybody needs to have their radios on because things are going to happen fast today." So the only thing that happened, the only thing that we did, before the warning was issued, I just got my cell phone and this is how it went down. "Yes, Ken? "You're about to get your ass kicked." Got it. That phone call was three seconds. Within three minutes, thousands of kids were in the hallways at every school in St. Tammany Parish. That's the relationship, it's -- and that's what we have to think about, even the direction that we're going now with the eyeball to eyeball and the nimble, flexible, mobile web service, and that's where it's all about, and it doesn't change today. You look at Hurricane Ian, you look at Hurricane Ida. We have to be there in the room to help with those tough decisions, and that's a big example right there, and never forget those stories. You really don't.

GR: Got it. Now, move to something fun, Mary.

MF: I don't know, now. I could listen to those stories. Those are very powerful. And just as an aside, you bring up two things, I wrote them down, the trust and the relationships. That is across the board important in everything that we do. Yeah, very powerful stories.

Well, we will move to something fun, or at least end on that, and that is SWERV (laughs). I remember this for a time because we were working at one point to try to get it up here and it was, it was a little bit of a battle and we weren't quite successful. So tell us, tell us about SWERV. What is it?

KG: I remember -- it's funny you said that because I remember why -- do you remember why we were trying to get it up here?

MF: I don't, no.

KG: I do. It was the inauguration.

MF: Oh, okay.

KG: We were actually trying to get the SWERV up here for the inauguration and it was just really difficult to figure out how to get a 40-foot ex-FEMA trailer onto the White House lawn for the inauguration. So there was a lot of logistics issues there, but we didn't have the answers, so that's what that was.

Yeah, the SWERV. Look, it was back in the pilot projects. The pilot projects were some projects for them to pick some offices and it was simple. If you had a couple of extra people, what could you do? A couple of people, how could you take this IDSS thing to the next level? And we were happy to participate, right? We were one of the leading offices in doing this at the time and it was exciting to be able to see what we can do. So the Significant Weather Emergency Response Vehicle, the SWERV, is the name, and the joke internally was when you put a bunch of meteorologists behind a big old three-quarter ton pickup pulling a 40-foot trailer, I don't think SWERV will move down the highway.

It was just never -- never seemed like the most safe -- there's only three of us that can actually pull it. I had an RV trailer, so I was pretty comfortable pulling it, but there's only three of us comfortable to pull it. I could parallel park that 40-foot trailer. So it was an interesting situation. We built it. People just volunteered to be able to do that and put so much work into it. It was hard. There were no there's no recipe to follow. We were trying this, and we talked to FEMA and they have some, actually brand-new ready, brand-new trailers that were sitting there for deployments to hurricanes. We found one. They donated it to us. We get the paperwork, all legal. We had general counsel involved the whole time with how to accept a free trailer, got a bigger truck through GSA, and then we said, "They can't just look like that. It's got to look gorgeous." So we worked with some local companies, wrap companies, and it was really interesting because I was like, "I don't know how to be able to figure out how to do the funding

for this. I just don't know how to do this." It was crazy. A couple of sponsors came forward and the wrap company says they would do it for no cost as long as they could put their company name on it, and I go, "All this sounds a little dicey." So I went back to general counsel and they said, "It's okay." It was amazing. As long as the money didn't go through our hands, as long as the sponsors worked with them, and they did, everything from Midland radio to others, they worked with them. So I had it wrapped, 40-foot trailer wrapped with tornadoes and radios and hurricanes and clouds and lightning. Just the thing was just crazy. I don't know how many -- the other part of SWERV was when people saw it, they swerved because they were like, "What in the world is that thing?" You couldn't miss it. I mean, when it was deployed to the Boy Scout Jamboree in West Virginia, deployed to Mardi Gras, deployed to floods right on the frontlines to give briefings, emergency managers on the frontlines could walk into this command center and get a briefing with the televisions on the wall and everything. We could take this to the frontlines. It was taking IDSS to the next level, taking them right to the frontlines.

It was huge, highly successful, controversial, very controversial at the time. There were some senior leaders at the time that thought that was the wrong thing to do, and I probably messed up somewhere along the way and wanted me in trouble, so to speak, and, but it was clean as can be, which is pretty amazing, to be able to build that thing, but it set the culture. I mean, it just set that IDSS to the next level. It really got us there and it lasted a long time. It deployed in Hurricane Irma. I'll talk about its demise if you want to know. So lots of success, but it's a FEMA trailer. It was a little -- and there were times it was full of termites. The poor little SWERV just gave everything it could, the engine that could, right? The old story, and there were times we had to repair it with termites. It just got old just in that environment, the frontlines and anyplace it gets 65 inches of rain a year and just the seasons, it was just tough on the SWERV. So we deployed it to -- this is a story I don't tell too often. We deployed it in Irma, deployed it to Key West. So it helps bring -- get some generators to employees in south Florida, generators to employees in the Keys. We had crews down there helping folks get things back together again. It was just a perfect opportunity to have a command center, even a place that people -- if the facility wasn't in shape, a place to be able to work. I mean, it was just a perfect situation down there for Irma.

I went as acting MIC for about a few months down to Key West, and I was going to leave, we were going to collect all the generators and I was going to bring the generators back. This is a story I don't tell. Get ready for it. It's a wild one. So we load about 20 -- it was a lot of work. Those portable generators are heavy, loaded a little over 20 21, 22 generators on this. We're all on the floor. It was just solid. That SWERV was squatting. Let me tell you, that was a lot of weight that poor SWERV. So I had it worked out with the Key West Police Department that I would leave about five in the morning, and they'd have to clear the street because I couldn't make the turn out of the Key West office by the Dairy Queen right there. They cleared all the cars. The police came. I got a police escort out of the area. It was kind of nice. So everything was good, right? Early morning, man, everything's going to be good driving back to Slidell.

Well, I got to the turnpike, West Palm area, and there was a time that a light on the truck, the GSA truck, the government pickup, said "check trailer." Well, yeah, I look in the mirror, I said, "I

checked it. It's still there." I don't know what that light is supposed to mean, so that's kind of strange, and it went away. And then a few miles down the road "check trailer." I tapped on the brakes, seemed okay. I turn on the lights, I can see the lights on the SWERV. So I pull over to the side of the road. I look at everything, everything seems fine. I said, "One of the lights must be a malfunction," so I continue. So at that point, driving probably 70 miles an hour, things are good, long road ahead, thinking about lunch, and "check trailer." That's not bad. This time the "check trailer" blinked and it made a sound this time, so something was a little different. I turned on the running lights. I didn't see running lights on the trailer. I pressed on the brakes and the truck skidded, and actually, there were no brakes on the trailer at that point, so it was pushing -- all that weight was pushing that truck, so the truck skidded a little bit. I said, "Well, this isn't good. It's not a good situation." So I skidded the truck to a stop, just skidded a little, skidded a little, skidded a little. I did it safely. I knew what to do. I did it safe.

I pulled over to the side of the road, and as I put the truck into park, I look off to the side of the mirror and there's two state troopers. They have traffic blocked up behind me. All the traffic's behind me, and I said, "Yeah, I haven't seen anybody pass me in about 10 or 15 miles," so I'm like that's -- I thought traffic was kind of light, so it was kind of a weird thing, and I look over, there was a tire going down the turnpike. It passes me, hits the center wall, and comes to a stop, and I said, "Oh, I must have hit a tire." Still didn't dawn on me. I said, "I wonder where that tire came from. I must have hit a tire." I didn't feel anything. This was really strange. So I walk out, I come around the right-hand side of the vehicle, I look, there's no tire, there's no axle. I lost an axle, lost a tire. There was all sorts of damage to the side of the SWERV, and I said, "Well, that's not good." Smoke coming off of it. I thought the thing was going to catch fire, didn't, and then I come around to the back end of the SWERV and there's a state trooper. She's right there in the road with her hands crossed looking at me, and I -- and she goes -- she pointed to the tire and she goes, "Is that yours?" And I'll never forget, I looked at the tire, I said, "Officer, I've never seen that perpetrator in my life." So I broke the ice.

She laughed, and we got a tow truck, and they had to get a big tow truck for it, and I only cleared the underpass when it was on that flatbed by a couple inches from hitting the sensors underneath that underpass. It was just a crazy thing. Got it to the local trailer place, and I'll end the story, got it to a trailer place. Apparently, I was frustrated. I don't remember. It was just a mess. I took it there. I said, "Fix it," and I left. And I'll never forget, Keith de Armas was the facilities tech. He's retired now. He says, "Ken, I just got a phone call from a trailer place in Florida." I said "What'd they say?" They said, "Well, some really tall guy left a big trailer here, says fix it, and he left. He never gave us his name, address, phone number. He just was -- seemed like he was ticked off and just left." And they said, "Since it said New Orleans Weather Service on it, we thought we'd call you." Anyway, true story. So that takes you from the beginning of the SWERV to near the end of the SWERV, the whole thing, but what a game-changer along the way. Anyway, I'll stop now.

MF: So is that where the SWERV was laid to rest, then?

KG: Yeah, it made it back. It sat a little longer, and then it was, yeah, put to rest. So it was a

great effort and a game-changer, honestly, a game-changer, and I can't thank the crew that put it together and all of us having the dream and making it work. The news conference, we had it covered with a giant tarp. We had the -- we had FEMA, we had the NOAA administrator who was incredible and was there, the director of the weather service, we had congressional members, we had the mayor, everybody was there at the news conference, but we did something really silly. People make fun of me for this stuff. I thought it was awesome. We started chanting "move that tarp," and we had about nine people on the back end of this thing, yanked on the ropes, "move that tarp," that TV show, "move that tarp," and they all brought that tarp back and it revealed the SWERV and everybody was -- that's the first time a lot of people saw it and they were just blown away by it, absolutely blown away by it, yeah.

MF: So is there a SWERV-2 in our future, do you think?

KG: You know, when you look at the future of the weather service, I mean, the words are nimble, flexible, mobile, eyeball to eyeball decision-makers, and that could be from EOCs, that could be on the frontlines, that could be a van down by the river. I think there's all sorts of opportunities over the next 10 years to figure out how we do that with -- especially when we're cutting the cord with AWIPS, right? We're going to have the same tools we have on the frontlines as we do in the office, so I think all sorts of wild opportunities are coming.

GR: Let's just make it an RV Class 2 or Class 1 RV, not a trailer.

KG: Yeah, no more trailers.

GR: And I think for our listeners, if you've not towed a travel trailer, it's hard to appreciate how much weight that's pushing you when you don't have brakes. It's not an exciting thing. I've been through that myself as well.

KG: Especially with 20 generators riding, and the whole back end of the truck was full of fuel -- fuel tanks. Anyway, it was a great situation.

GR: Yeah, well, at least it didn't break down on Seven Mile Bridge. Then you would have been on national news.

KG: True, very true.

GR: Okay, well, I think that's a good place to end this session. Ken, next time we are going to talk about your time at the National Hurricane Center and coming to -- back to headquarters as Director of the National Weather Service.

[END]