

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

AN INTERVIEW WITH KEN GRAHAM
FOR THE
NWS HERITAGE PROGRAM
ORAL HISTORY COLLECTION

INTERVIEW CONDUCTED BY
GREG ROMANO

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TRANSCRIPT EDITED BY
GREG ROMANO

Note: Transcript Slightly Edited for Readability

Greg Romano: This is an oral history with Ken Graham, Director of the National Weather Service. Today's date is Thursday, February 2, 2023, and we are conducting this oral history from Ken's office in Silver Spring, Maryland. This is the third oral history interview being conducted with Ken.

Ken, we're going to focus this session on your move to NHC, but we're going to start with a different story. Then if we have time, we'll move to your being selected as Director of the National Weather Service.

So, Ken, to start us off ... After our last session, you said you wanted to make sure that you've told the big-shoe story when you were an intern earlier in your career. What was that all about?

Ken Graham: It's interesting how certain things happen in your career that really change you. This was one of them. It was an experience with a big flood event. I mean, about 24 inches of rain in about 25-26 hours. There was a significant impact. This was Slidell, Louisiana. New Orleans got hit. [It was an] Incredible, huge, historic event, [in] 1995.

It was interesting. The warnings were good. I mean, we did a great job. The problem is you see so many people impacted, and that was an interesting thing for me because it's like, how do we do more? Then through a local church -- somebody at the office belonged to a local church in Slidell -- and they were going to deliver mattresses to those that lost everything. I had a pickup truck. We loaded up mattresses. We delivered all sorts of mattresses, and at the end of the day, I was the only one left standing and went to a community, a very low-income area. We're having so many conversations these days about vulnerable communities and things. You work long enough in the field offices, like I have, you really see those things firsthand ... these communities that are impacted so greatly.

So, I went to the final spot, dragging the mattress behind me. I knock on the door, and those that know me [know] I'm pretty tall. I'm 6' 6", I knocked on the door. The door opened, and I had to look up. I had to look up at this gentleman. He was just incredibly huge. I looked up, and I said, "Hi, this is Ken. I'm here to deliver a mattress." And he's like, "Oh, come in." So, you've got a picture of this ... You see the watermark about four feet up the wall. You could see the debris on the wall. There's no carpet. He already pulled the carpet out of this place. There's nothing. Bare concrete, and he's just lost everything. There's nothing in there. And he talked about, "Yeah, my clothes from my closet, somehow they fell when the wind came in, and I saw some of my clothes going out the back door with the water." I mean, it's just a tragic thing. So, I put the mattress down on the bare concrete. Remember this is 1995. There was no, I mean, I didn't have a cell phone. If I did it was bolted into the vehicle. So, when I left it was like that feeling you get when you forgot something ... keys or whatever, your cell phone. I'm just like man, I'm forgetting something here. And I said, huh.

I turned around, and I said, "Hey, look, what else do you need?" And this massive gentleman,

this big guy, says, "I need a pair of shoes." I looked down, he's barefoot. I said that can be accommodated. We can do that. I'm going to get you a pair of shoes. What size? Great. He goes, "19" with this deep voice. He says 19. Now, I said, okay, all right. Sounds good. [It's] 1995, there's no internet. If [there] is, it's just started. So, I didn't know where to get it. It was the telephone. You call. I called every shoe store, every store possible. No 19s. There was no way, and then I got some -- from the stores, I got some 800 numbers, toll free numbers, to be able to call for the shoes, and I reached a major company.

I told them the story. They were in New Jersey, and they said, "Let me transfer you." I'm like okay. Music, music, music. Next person ... I told the story. They're like, "Oh, okay. Transfer you." So, after many transfers, I finally got to somebody and told the story. They go, "This is amazing. We're going to -- we have the shoes. We're going to get them to you." I said that's wonderful. How do I pay? They're like, "Oh, there's no charge. We're going to overnight them. You'll have them tomorrow." So, I gave them all my information, and they did. The box came ... big box! Okay, I don't want to name the company, but it was the biggest swoosh I've ever seen on a bright-orange box. So that thing came in, and anyway, I took those shoes to this gentleman and knocked on the door. Looked up again. Gave him the shoes.

I regret not lacing the shoes because he put his -- sat down, and he started putting those shoes on and sat down on that bare concrete and started lacing up those shoes. It seemed like an eternity, and this big old guy stood up, and as tears rolled down his cheeks, he gave me a big ol' hug. You can not be impacted by that. Right? So that story is just amazing. It's one of those that shape you and drive you and make you bid on jobs like this one or NHC, just to continue to serve these folks that depend on us so much, Greg. But what a wild thing to remember. I can see his face like it was yesterday.

GR: And before we jump to NHC, and obviously, that's way above and beyond the call of duty, what you were trying to do. I mean, this isn't your job. But what is it? You said it shaped you. How does that affect how you approach the world today and how we, as the Weather Service, approach the world today?

KG: They're not products and services, right? Of course, they are. We have products. We have services. We have things we send out like a warning, or we have a website. For me, when you meet this giant gentleman with size-19 shoes, everything we do is about somebody. It's about a person. It's somebody that receives our information and makes a decision. It's somebody that uses it to make a decision or the right decision or wrong decision. Right? All that is part of what we do in the social behavioral sciences, what we do. So, I don't see anything that we do in the National Weather Service, other than the individuals that we serve and the people that we save their lives. This is real. It's not a game to me. You know, there's a lot of things we can do in life, but this is a complete passion, and it's about the big, giant guy, or it's about everybody and those decisions. So, I see it, I absolutely see it, as the individuals we serve every single day.

GR: All right, so you mentioned NHC. Last time we talked, we were talking about [being the Meteorologist in Charge in] Slidell. You've been there a while, and now you apply to be the

Director of the National Hurricane Center. What were your motivations for taking that job? I mean, that's one of the most visible jobs, weather jobs, in the entire country, if not the world.

KG: You know, leadership's funny. You get into a leadership position --and it's kind of a weird thing to say -- you almost try to work yourself out of a job. I mean, you make changes. You have succession planning. You build the team, and pretty soon it's -- even in Slidell, I show up for a severe weather event. They're like, "Why are you here?" Like, wow, that's beautiful. That's awesome. It just seemed like the time to maybe do something different. You know, after 10 years in Slidell. That's a long period of time.

So yeah, I threw my name in the hat. Got the job. It was a shock, and ... I don't know if we've -- I don't think we've covered this, Greg. You know, Slidell -- the New Orleans office -- was so busy. We talked about things like Deepwater Horizon. We talked about all that already on this recording, and that was such a busy job. It prepared me for NHC being a busy job, and even NHC prepared me for this job type of thing. So yeah, I threw my name in the hat. It was just an exciting opportunity. I mean, absolutely passionate about hurricanes, but yeah, there's some surprises, even in getting that job and in some of the international work. And, wow. I think of some conversations with previous directors, I think I had more hurricanes in my four years at NHC than some of them had in their career. I mean, it's a really interesting perspective, and we had some incredibly busy seasons while I was there.

GR: Well, that, what you basically just asked the next question, which was you took this job during a very active period of hurricane activity. You talked a little bit about surprises. So, share some of those surprises, but also, when you're talking about that, you know, what did you want to do when you took the job? What changes did you want to make, and again, recognizing that we were in this in this period? How did that impact how you approached your job?

KG: I think it's an interesting situation, getting to the Hurricane Center, because I think I had all intentions to really look at improving products and services, which we did, right? We did some of that and really worked on the relationship with the field offices and the other centers, and we did that. We did a lot of those things, but you know, it's interesting that tenure there [included] an incredible amount of operations. We tried some new things. Facebook Live, that was -- we leapt out on that one. When you walk down the street, and somebody says, "Aren't you the guy from Facebook?" That's something, right? That had a huge impact on the things that we did. All the media. My first IFB (interruptible fold back circuit). You put that into your ear, a custom-made type of thing. There were a lot of new experiences for me, but a lot of it was building a family there, and what a tight family at the National Hurricane Center that we built, incredibly. You go through that many disasters, a pandemic, and etc., we went through all that together and built a really close family. But there were a lot of people with incredible hearts. There were some functions that I had to -- [I'm] very proud that I did this -- there [was some administrative type of stuff that I tackled head on. And, you know, it was a great team there. I think we, taking that team and going somewhere together was a big thing.

Everyone's listening to this going, "we're going to talk about hurricanes. This is going to be

amazing." No, I spent a good amount of time cleaning up things that went back decades and decades and decades. Everything from, property to some of the administrative functions. We did it as a team, and I think that we built, some of the bond, is taking some of those things that are less attractive and eliciting this going, well, that's kind of a letdown. No, if you can get all of that cleaned up, and you can do that nicely, we can really focus on the mission. So, I'm really proud of that. I doubled the number of women at the National Hurricane Center and doubled the number of African Americans at the Hurricane Center. I'm really proud of some of those things that we did, in addition to having so many hurricanes ... not just hurricanes, but incredible hurricanes. You look at, you know, you look at Florence, Michael. You look at Laura, you look at Ida, you look at Dorian. The list goes on, right? Some of these hurricanes that I got to deal with in my four years are absolutely some that will go down in history forever, as some of the big ones that hit this country.

GR: You talked about the staff being a family and being really tight. Let's look at 2020. Specifically, I believe there were 30-named storms that year?

KG: Thirty named storms; ran out of names, Greg.

GR: Yeah, I remember that. I mean, I remember -- was it 2006? (Editor's Note: it was 2005), [we] ran out of names, but 2020 was particularly difficult. How did you work with your team? How did you keep yourself and your team energized throughout such a difficult season of just storm after storm after storm?

KG: Leapt out. So a couple things, right? If you go back to 2020, there's two things going on. One, 30 storms, and we had a pandemic. There's several things going on at the same time with this. At the onset of the pandemic [we were] looking at one of these La Niña years, and it's going to be busy -- what did we say, 30 storms at that time sitting there in February and March? But at the same time, we knew it was going to be busy. So, we leaped out right into the pandemic. We knew we're going to go into a busy season, and we set a cadence. We literally were up to, I don't know what the final numbers were, but if you look at the number of All Hands Meetings that we had, there are somewhere between 120 and 150 we did during the pandemic. If you look at the number of COVID Manager Meetings that we had, trying to plan out how we're going to keep everyone safe, and how we're going to do this in this busy season, I think the numbers are deep into the 200s. We spoke. We lit it up into communications that were constant.

The other thing that we did that was interesting is keeping people safe. We were the first plan in NOAA. We had the first COVID plan in NOAA. We didn't have the luxury to wait. We had to. We had to do something. So, we -- everything from cohort scheduling -- two hurricanes, remember, there's only nine hurricane specialists. You've got to keep them safe. So, there's a 10th, including our Navy partnership. So, we broke them up into twos where they wouldn't see each other. They wouldn't have contact with each other. Shift changes from the parking lot. We kept them in pairs to keep everybody safe. We'd literally taped the floor. Nobody was allowed in that space while the hurricane forecaster was in there. We leapt out on a plan. The union was there from day one. Management was there. The employees had a say in everything. We wrote a

complete COVID Safety Plan for the Hurricane Center, including the Weather Forecast Office, or WFO.

That was -- the reason I answered it first like that, because having that safety built the bond and the communication that it took to get us through that season. Does that make sense? It's an interesting thing to talk about here. So having that leap out and, and really having a safe place to be for everybody, including moving workstations. We did everything. We did everything to keep ourselves safe, and if there was a case of COVID that year, I don't remember it. So, we did keep people safe, and we got through the season. But a lot of it was talking. I mean everything from feeding the staff, bringing food in, to constant communication, talking, keeping people safe.

Thirty names, we ran out of names. We have, actually -- we could talk about it, too. The World Meteorological Organization, I went into the meeting and proposed getting rid of the -- not having the Greek alphabet as names, and we did it. We don't use the Greek alphabet anymore. That was all because of the 2020 season, and there's a story behind that, too. But yeah, that was it. Communications, taking care of each other, feeding each other.

Here's another one that I think we need to record because (and we are) the mental health means a lot. I think how that was tackled, it was emotional at times on some of the All Hands Meetings. I believe I teared up probably on half a dozen of those All Hands Meetings at the end, and it was only because this is an incredibly difficult season, COVID. I said, "If you have an issue, you better call me. You better call me. I don't care if it's two or three in the morning, you better call me," and some did. If you have an issue, I don't care if it's the middle of night, you call me. If you're having any sort of -- I don't want to say breakdown -- any sort of challenges, any sort of thoughts, anything that's going on in your head, toughness in your life ... call me. People were going through a lot. That was the untold story of the pandemic. It was tough on families, tough on marriages; it was tough on mental health. It was tough on all those things, and people went through that. I'm so thankful that people actually called. Some of them in the middle of night, and we talked through it, and people got help. We listened. We talked about it, the mental health, the stress; we talked about it openly, openly in every single one of those meetings. So, I don't know. To answer it, we took care of each other.

GR: You have said on numerous occasions, since you took this job in June 2022, that the issue of burnout -- and it's right at the top of your board sitting behind you -- is one of your number-one priorities. Did that year, working through COVID, such a huge storm, really help prepare you for dealing with the burnout issues that the entire agency has?

KG: Yeah, when you burn out yourself, you can relate, right? So, there's times I didn't think I was going to get through hurricane season 2020, and to be able to have that communication, to have all those hurricanes, that much mission in a COVID environment, everything else was incredibly difficult, and I mentioned the Facebook real quick. Even that was a stress, Greg. I mean, you know, in 2020, I wore my mask on all those broadcasts, because there's only nine hurricane specialists, 10 with the Navy person, and incredibly small. People think it's a big, giant National Hurricane Center. It's not. It's a very small operational center, and if you go back to

2020, we didn't fully have a grasp on how the virus, maybe, was transmitted. All that was going on. So, all we could think of was how do we keep ourselves safe. We had strict mask policies, strict policies on keeping ourselves safe, because there wasn't many of us. It's not a big group.

So, the world was not shy in sharing their opinion on my mask wearing on air in 2020. You could, you know, if people want to, you could probably go back and look at some of the comments, but they were incredibly attacking of that. But then at the same time, there was an equal number of people coming back and kind of defending it. It's just an interesting time. So, back to the burnout ... All that was going on at the same time, and [it's a] good thing you have great people to take care of each other, because you could talk about these things openly. I was able to phone folks, talk about it, and the biggest thing is to recognize if you're burning out. You've just got to accept it and understand it and do something about it. So yeah, definitely -- [I] definitely was burning out in 2020. I can relate to that list behind me big time.

GR: When you look back to that time, and forgive me for not knowing this, how did you deal with the media? When I've been down to the Hurricane Center in previous times, the media, particularly with a landfalling storm that's going to potentially impact the United States, the media are a big presence there. Were they kicked out? Is that part of the reason you did Facebook Live?

KG: Yep. We wrote it into the plan. No media allowed. We kept the numbers in that building to a bare minimum because I couldn't take the chance. If you think about -- think about the Hurricane Program for a big chunk of the Earth comes out of that building, right? We're very international. It's not just the United States, there's 28 countries that we're responsible for, and the collaboration and the forecasting, for those countries, 28 nations. You bring one person in that's sick, [it] could wipe that out. And, let me tell you something, we don't have a bunch of folks sitting there ready to back us up. Right? So, extreme right? They're not allowed. We had a couple exceptions when we had some big, high-level dignitaries that wanted to come but we made it very clear, absolutely. Let's do this. We're wearing masks. We're being separated, and I didn't want any of the forecasters in the building. That was that plan that we wrote. Very strict, really, rules I guess, so to speak. But yeah, we didn't have them in there, and that's why we had additional coverage with some of the media pool, the satellite coverage, and the Facebook Live. We got more aggressive with all of that, but it was, literally, every three hours of Facebook Live. There's a generic broadcast that most people don't know about. On the top of every single hour, we do a three-minute broadcast and give the latest information, and that was being picked up live, even on some networks. We didn't even know it, and it was being picked up live. So, it worked. But no, we locked that place down.

GR: All right. So, moving to hopefully a nicer subject, if nothing else, you applied for and became NWS Director. As we are conducting this interview, you've been in the Director's position for about eight months. So, walk us through the motivations for applying for the job and your first thought when you realized you got it. Then we'll get into more details in terms of the path.

KG: I think, at NHC, it was just interesting having more than just one WFO. You got a sense of working with multiple Weather Forecast Offices, River Forecast Centers. You get a bigger picture of working there, and the international part was huge. I mean, working through 28 countries to get the votes that you need to not use the Greek alphabet anymore because of the misconceptions of the names. You know, some of the names had different meanings in the Greek alphabet, zeta, eta, theta ... people got them confused. When you had zeta, people thought it was the last name in the Greek alphabet, which it's not, and people were panicking because of that. Some of the Greek alphabet names are vulgar in Spanish or Portuguese or French, and you know, along with English as official language. So, it was a perspective that I saw that was bigger than just a local area. As a result, yeah, it's a situation that you spend so many years of your career trying to push the limits, do something different, the whole impact-based decision support. My first deployment was in the 90s, and to see the value of that and all the talk. It was one of these situations that you talk about change. You talk about how you would do it differently. I think we might have talked about it before. As an intern, it was like, someday, when I'm a forecaster, I would do it this way. And then you're a forecaster, and it's like, if I'm ever a lead forecaster, I'm going to do it this way. And then, if I'm ever an MIC, and become an MIC, if I'm ever the Regional Director, and then, it's like, well, if I'm ever Director of this agency, I would do it this way. So, there comes a time in your life that you've tried to make changes. You've done everything you can. You think you, hopefully, you made a difference in your career, and then it's like, I have a shot at this, and there's enough of, "If I was this, I would do it this way." Put your money where your mouth is. So, there was some thought process that went into putting in for [the Director position]. Let's give it a shot. Let's go ahead and throw my name in the hat, and then, yeah, a few interviews. Then learning, having that phone call that you got it. I might have -- I didn't faint. It was close. It was like, wow, this is actually going to happen.

I think there's an interesting .. going from intern to Director is a -- it's a heck of a thing. Right? I didn't even know if it was possible. I don't know if any of us knew it was possible, and the fact that I actually got it. I think, still, I have to do things to remind myself that I have the job. I think I'm still growing into it, honestly. So, I think that part of it was absolute shock. I had an opportunity to really make a difference, and I think the timing is perfect, with people, infrastructure, and our future as the pillars of what I'm trying to do. It's just a culmination of all 28 years in the Weather Service coming together and all these years of trying to make a difference and to actually be in a place that we can really transform and do some big things in this agency is the ultimate humbling honor that I probably have ever had.

GR: Let's dig into a little bit on that. You mentioned that, "Yeah, if I were going to be director, I would do it this way," and you got here. You quickly set a path for the agency towards transformation. Set those people priorities and the other priorities under the Ken's 10 moniker. So, you'd obviously thought about it. What were some of the whys behind these, and what did you see or hear when you walked in the door that made you think NWS needed to march along such an aggressive path?

KG: I think for me, I think it's ... there's a couple things. One of them is the -- you know, everything from the story about the shoes and so forth, there's that last critical mile. That is,

we're losing a lot of lives in that last mile. It's where you can have a perfect forecast, or you can have a forecast that's good enough, but we're still losing people. Why? And I think seeing it on the front line, seeing it being deployed is a behavioral and social science aspect of this. It's when are decisions made on a timeline? Was the right decision made? Is somebody in the room, which I've had to do, and say, "Excuse me, may I speak freely?" This is not easy. It could be anything from a governor to a mayor to an elected official. It could be anybody, and you have to have the trust to be able to do that and say, "Look, what part of 10 feet of storm surge don't you understand? Or what part of a forecast of 18 inches of rain don't you understand?" That's huge, because we're asking, in many cases, nonscientists to make really tough decisions based on, I'm sorry, information, that's not easy to understand. We get it because we do it for a living. Right? But that's not where everybody is. So, I think seeing that over the years gave me the drive that we've got to get to that.

And here's the other part, and this isn't easy to say. I've been saying it since I got the job. I haven't had a ton of pushback, which means people are thinking about it, but if you go into the future with computing power and you add artificial intelligence. You start adding AI into things and modeling and decision making. You start thinking about all of that in the future and how much can we do? There's always some improvement we can do here and there, but how much can we really make a difference in some of that long term in the forecast? You think about that last mile, that critical mile, and you realize if we lose the impact-based decision support, if we have trouble adding value in all aspects of the forecast, and you lose the IDSS, I'm pretty convinced, in 15 years, there's going to be questions about all of us and our agency. So, I think the drive to put in for this job is the fact that we can do something about it, and that has literally shaped the nimble, flexible, mobile eye-to-eye [focus] with our decision makers. What I've been saying. It shapes pillars. It shapes the Ken's 10. Everything is shaped to take hundreds and hundreds of priorities, narrow those down to fewer that we can get done quicker, to lead us towards being indispensable to our partners in 15 years. That's why I put in for this job. Are we moving fast? Yeah, probably, but we've got to get on this path to be able to be as indispensable in 15 years as we are today.

I am really passionate about where we need to go. We need to be eyeball-to-eyeball with these decision makers. They need us more than ever. They're begging for it, and we've got to ... we got to figure out ways to be able to do it, and that's really shaped the Ken's 10.

GR: Part of the reason for doing this oral history early in your [Director] career is to be able to come back in five years or 10 years or whatever, and say, hey, how'd you do? And you know, put some perspective on your career moving forward, at that point in time. So, I'm going to wrap this session up with a thought. We often say that history tells us why we became what we are today and inspires our future. So, looking back on your career, and we've talked a lot over the -- our three sessions, what do you think are the key break points that brought you to the stage, and how do they inspire your path forward?

KG: If you go back in time, it's all the stories. Look, you go back, if you listen to this whole recording again, you'll hear those stories. Every one of those stories is still told today, because it

made some sort of difference, right? It's this -- it's the shoe. Wow, look at the impact that we have on this person. He's alive, needs help, but you know, our products and services, you know, did what they were supposed to do. Every one of these events shapes you, and I think it's about the individuals. I think about that last mile. I think of vulnerable communities. We could do something about it. I mean, we're having conversations today about looking at our entire outreach program and doing it differently. Doing it with vulnerable communities in mind, it's incredibly important.

So, looking back in time, every single one of these big events changes you on the other side. So, anybody listening, when you -- I don't care if you're in the Weather Service, or the private sector, or whoever's listening to this thing. Go back and look at those big events in your life, and go figure out how that changed you on the other side, because I can tell you every one of these big events, whether it's Deepwater Horizon, tornadoes, everything shaped who I am today, and it drives the passion. I think what's interesting, too, you don't really think about it until you talk about it like this. It's interesting that the drive and the passion is no different today, 28 years later, than it was walking in the door as an intern. I think that's interesting. So, it's not lost. In fact, it's probably grown through time, and I think it's every one of those events that add up to there's people on the other side of this.

There's the people priority. There's people doing the work that are the highest priority for me. There's so much passion, just so much passion in this agency that we can do anything. The problem is we're trying to do everything. So, I'm trying to narrow that down to tackle the burnout, and so forth. And you think about it, it's not just us. It's the people we serve, right? It's about the people we serve, the individuals making those big, big tough decisions. It can be anything from I'm going to drive a mile away from the water to big decisions, like I'm going to evacuate a city. It doesn't matter. They're still decisions to save lives. So anyway, that's a roundabout answer to the question, but take those big events. Learn from them. Write them down. Tell the stories of those big events.

GR: Well, it may be roundabout but that's probably the best summary we've ever heard. So, thank you, Ken. I much appreciate it ... appreciate your time.

KG: Perfect. Thank you.

[END]