

**An Oral History**

**with**

**Miguel Rodriguez**

**SSC History Project**

**Interviewer: Martin Oramous**

**2006**

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*An Oral History with Miguel Rodriguez*  
Interviewer: Martin Oramous  
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# Biography

Miguel Rodriguez is the Director of Propulsion Test at Stennis Space Center. He received his Bachelor's Degree in Mechanical Engineering from the University of Puerto Rico, Engineering Campus.

Miguel joined NASA in 1976 and commenced his career at the Marshall Space Flight Center Huntsville, Alabama, as a mechanical design engineer. He transferred to KSC in November 1978 and held several key positions with the responsibility of preparing several facilities and providing the capabilities for processing Shuttle payloads.

He started in the payload community as a mechanical systems engineer and progressed to being the Integration Engineer for the STS-31 Hubble Space Telescope payload. He joined the management ranks in 1990 and held several positions managing experiment integration, project engineering and operations. Miguel has worked on several special projects for NASA including leading the organizational efforts involving Strategic Planning and Performance Based Contracting. He also led a KSC team responsible for developing an initial tool for capturing employee competencies and skills in support of an Agency Core Capabilities Assessment.

Prior to Stennis Space Center, Miguel was the Chief of the Integration Office of the Cape Canaveral Spaceport Management Office (CCSMO) located at Cape Canaveral Air Force Station (CCAFS), Florida. He was responsible for assuring effective base operations, maintenance, sustaining engineering and support services for all NASA at Kennedy Space Center (KSC), the 45<sup>th</sup> Space Wing at CCAFS and Patrick Air Force Base (PAFB) as provided through the Joint Base Operations and Support Contract (J-BOSC).

Miguel began his career at the John C. Stennis Space Center as the Director of Center Operations in November 2001. This directorate is responsible for providing a comprehensive and integrated program that is a customer-focused delivery system of institutional services for the Stennis Space Center. He became Director of Propulsion Test in July 2002 which he currently serves. As Director of the Propulsion Test Directorate, Miguel oversees testing of engines used to launch spacecraft, including the rockets that carry manned shuttles into orbit.

Miguel has received numerous honors, including two NASA Exceptional Service Medals, the KSC Leadership Award and the NASA Silver Snoopy Award.

## An Oral History

with

**Miguel Rodriguez**

*This is an interview by the Stennis Space Center History Office. The purpose of this interview is to document the story of key personnel during/after Hurricane Katrina at SSC. The interview is with Miguel Rodriguez and is taking place on January 18, 2006. The interviewer is Martin Oramous. Also present are Paul Foerman and Shelia Reed.*

**MIGUEL RODRIGUEZ:** I'm Miguel Rodriguez the Director of Propulsion Test at Stennis Space Center.

**MARTIN ORAMOUS:** Where were you and what were you doing when you first realized the hurricane was really going to hit us and what were your thought processes of what you had to do at your home? Also, thinking about here and coming here and what did you do?

**MIGUEL RODRIGUEZ:** As Director of Propulsion there were two primary concerns I had. One obviously for my family and property, and the other one for preparing the facilities at SSC for the hurricane. People might recall there was still a lot of uncertainty whether it was going to come through the way it did. The Thursday before the hurricane hit we had to go through the facilities and protect computers and equipment and close down the protection on the engines on the test stands and all that kind of stuff. There were two intensive days and then people went to take care of their homes and that kind of stuff. When I got home for that weekend, the News and the forecast on the models kept showing it coming through New Orleans or east of New Orleans. It was obvious to me that I needed to make a decision if I was going to stay or leave. I live in Mandeville which is north of the lake, but still close enough for comfort. So, my wife and I decided that we were just going to skip town. We relocated to Dallas, TX to a hotel that would allow pets. So, that's where we ended up with quite a number of other people from Louisiana as well as from Mississippi and New Orleans. So, I left that Sunday about 2:00 in the morning because I felt that way I didn't have to fight the traffic. We made it without any problems to Dallas. Then the hurricane came in. The most desperation I felt inside was not being able to communicate and find out the status of Stennis Space Center or the people for that matter. I knew of many of the individuals that were going to come to Stennis for shelter from the hurricane. I found out that communications just weren't working. Once I got to Dallas, I was able to use my cell phone to call people until after the hurricane when communications got lost. So, I knew the status of many employees

until just before the eye of the hurricane went through the area close to Stennis. I did get a hold of one of my neighbors. He informed me that there were a lot of trees that had fallen in our area, but that I did not suffer any damage. It turned out not to be the case. When I got back the Friday after the storm, I did have a tree that had landed on top of the master bedroom, a pretty large pine tree. I worked that Friday to the next Friday just to get in the house and secure it in order to go to Stennis and find out what was the situation because still there was no communication. Mind you, I didn't have television in Mandeville or computer so I could not log in to find out information through the new setups that were put in place so people could find information. So, I went to Stennis and that is when I attended one of the meetings that Bill Parsons, our Center Director, instituted since after the hurricane to review the status and the things we were going to do to recover from the hurricane. At that time I offered my availability, since I had done as much as I wanted to do in the house. I was offered the opportunity to head up a committee responsible for the housing for those that were displaced by the hurricane. They either lost their homes or their homes were unlivable. I had a team of about 20-25 individuals that represented the majority of the resident agencies here at Stennis to go start addressing the issues. One of the first things we had to do was to ascertain who ended up losing their homes or their home wasn't livable. Also, help those employees recognize that they needed to sign up with FEMA so they could have their name in the system and gather information as to the size of the family so that we could then interface with FEMA to find some alternative housing for them.

**MARTIN ORAMOUS:** With the lack of communication, how were you able to find out that from all those people?

**MIGUEL RODRIGUEZ:** We were able to obtain the information through the team, since the majority of the resident agencies were represented. Amazing enough by then we had put a system in place to collect the information by talking one on one with employees. It took about a one to two weeks to get about 70% of the information. Also, by then NASA instituted a web based system so people could log in if they were outside the area where they had power and a way to connect to the computer. They would call a phone number and then that information would be entered also. We had information for NASA employees as well as Contractors and Resident Agency employees. The Contractors and Resident Agencies really had a very good idea how to get a hold of their people. They were sending people to drive to peoples' homes to find out if they were O.K. or not. So we started building a database that showed each particular individual and what their situation was and what their needs were. From that point on, we just started working with FEMA to find alternative resolutions. One of the first ones that came available to us was the Sun Roamers Park in Picayune, which FEMA had already leased for their RV trailers. In that process we were contacted to see if we wanted to place personnel from Stennis. Actually, it was the Navy who established the contact and through the housing committee started setting priorities. This was a very difficult choice because everybody was in need... so how do you establish a priority? So, we used a priority system based scenarios such as employees living in cars or with special needs because they didn't have a place to stay. That became priority #1 and then we looked at those that were relocated far from the area. So we started placing individuals in FEMA

trailers, but to the tune of only 60. The numbers that we had to accommodate were close to about 1,000 people. For example, we had many NASA employees that had to relocate to either Marshall Space Flight Center, Johnson Space Center, and Kennedy Space Center to the tune of about 30 employees or so. We also had contractor employees relocated to Huntsville and other areas so they could take care of their needs. The demand was so high that there weren't sufficient places to put people. We started working with other groups in FEMA through Steve Brettel, who was also working as the SSC liaison to FEMA to establish a new trailer park that could house 200+ people in trailers. There were still many people living in office areas with their pets and their immediate family and sometimes extended family. That was presenting a health situation for us and them. To this day we are still working those issues, but everybody pretty much has either found a relative to stay with or have a trailer where they can stay or if their home wasn't livable at that time now it's livable enough that they can sleep in their house and eat.

**MARTIN ORAMOUS:** That was really a priority from the beginning wasn't it, simply because to try and get back to normal operations is to try to get people.

**MIGUEL RODRIGUEZ:** One of the key things that I had to do kind of transcending back to my job as the Director, when things were moving along on the housing side, one of my concerns was how do I get my work force to reengage in our job because the problem you get when a hurricane hits you is it affects you locally as well as your surroundings, but anything over 200 or 300 miles away, they think that life should come back to normal so they are not fully aware of the full impact that this hurricane had upon us. So, the concerns that we had is that a lot of the work that we have pending in support of NASA's vision would come to a total halt and some other decisions could be made that would leave us out from completing that work. My challenge was how do you reengage your work force, but at the same time allow the time they need to take care of their homes and their needs. So, after about 2-3 weeks after the hurricane, I recognized through my own experience that work was important to keep a balance for a lot of the people. It did for me because I spent a whole week at home and I was just tired of that and when you are tired then you start having accidents at home because you are trying to help not only yourself, but other people. So, I became conscious that it is important if I can balance the work and start getting things back in order it will provide an avenue for the employees to have balance in their lives. So, I called my management team and said look this is what we are going to go do. We are going to start at this rate and we are going to increase the rate, but I always want you to remember that if an employee has a specific need we need to give them the amount of time they need to take care of that need, but I am convinced that when they realize the balance the work provides for them, everybody is going to fall right in place, going to help us get back in place. Actually that happened fairly quickly. I was amazed because people enjoyed the balance and then we gave people time off. Dave Carstens was in charge of "Stennis helping Stennis" and their friends and their neighborhoods. We allowed them to go do that but they enjoyed having to do work also. So, I really believe that that helped get Propulsion Test back in place. We were able to test fairly soon after the hurricane.

**MARTIN ORAMOUS:** It's almost like coming back to work is one of the few things that is familiar to people from before the hurricane because everything else has changed. How did the test complexes fare?

**MIGUEL RODRIGUEZ:** They fared well, really when you look at the devastation that is around Stennis, I feel the Test Complex did very well. We had really minor damage and leaks and some damages to the roofs, but nothing even compared to the surrounding areas. We were able to test fairly soon. We didn't have damage to critical systems. We actually ended up supplying power to the rest of Stennis through generators and other avenues that we have in the Propulsion Test Complex and of course those structures are built to handle explosions from stages and engines. So they are built to very high standards when it comes to wind resistance and explosions and all that. We weren't surprised by it. We were surprised though that with the type of damage that the hurricane did around the area, we didn't have more damage than what we had.

**MARTIN ORAMOUS:** Was there anything that you faced when you were out there or with housing or even personally, not that you could expect because you really don't know what to expect, that really kind of blindsided you? That you just didn't really think that you would have deal with, a real big obstacle for you, in any of those aspects.

**MIGUEL RODRIGUEZ:** Not really. I guess a lot of it is just personal nature. Personal nature, I mean you take what comes to you with a grain of salt. You need to make the best out of it and try to overcome it. I think what really surprised me the most being from Puerto Rico and having been exposed in my very young, early years with hurricanes, the amount of devastation as you've heard people telling their story, it was really, I don't know how to explain, it kind of makes you feel like you just don't have anything to complain about because the situations that you heard were so tough, so difficult that it makes you wonder how would you handle a situation like that. I didn't lose my home. I was able to stay in my house after the storm. Other people lost their home, had to swim to stay alive. So, when you hear those kinds of stories that was really the most impact to me. Recognizing and actually visualizing the damage first hand because I drove around a month after just to get an idea of the full impact because the news weren't concentrating that much on Mississippi. They were concentrating mostly in New Orleans. It is just amazing and that to me was the most impressive and overbearing part of this whole endeavor. I heard yesterday that Trent Lott said Mississippians are resilient and it is absolutely true. Three weeks after, you could hear the stories, but people weren't down on themselves. They were just ready to engage and get the community back. It's amazing. It's really amazing in my opinion.

**MARTIN ORAMOUS:** Absolutely. Is there anything that really kind of touched you as far as your personal experiences or just the way people here at Stennis came to the line or anything at all like that? Nobody around here as ever experienced anything like this. They might have lived through Camille but...

**MIGUEL RODRIGUEZ:** There are several things. One of the things that upset me is the people that made the choice to stay when it was very obvious that the hurricane was

coming in that direction. That bothers me. It just helps resolve in myself that that was the right decision to make even though on previous occasions I questioned my rationale to stay. It was all O.K. The whole process that you go through to make a decision like that, it just brought it closer to home. On the other hand, when you hear people had lost their dear ones then it really impacts you. It's friends, people that you work with. You hear those cases and that's pretty tough and the circumstances that led to that. I don't know. That to me is the most impressive and sad part of the whole ordeal. On the other hand, once you get past that, it gives you a lot of satisfaction to see the community pulling together. I witnessed that with my own neighborhood. How everybody was helping each other. Today we're a closer neighborhood. That will change as people move on and relocate. So we will have a different neighborhood that won't have that kind of magnetism, but in the community here at Stennis you can see that there were no boundaries. People were helping each other. It didn't matter if they were Contractors or civil servant employees. It didn't matter if they were people that you didn't even know. I mean it was just a matter of helping. That's pretty impressive. Actually when you look at it, there is always something good when bad things happen. That's one among many others that happened in this area and that still is going on.

**MARTIN ORAMOUS:** What kind of advice would you give someone in your position if they had to face the same thing you faced 10 years from now or whoever might take your position as Director of Propulsion Test Directorate or you personally?

**MIGUEL RODRIGUEZ:** There are several things, depending what your position is. As Director of Propulsion my belief system is you have to first of all take care of your family, those who are closest to you and that is above anything else. But right there if not immediately or right at the top is taking care of the organization and those assets that have been put upon you to be the leader of and the person in charge. Step 1 was to make sure that we had things taken care of before the storm so you check that box. Then in parallel to that you are taking care of things at home and immediately after you take your family away. You are not going to help anyone if you stay at home and the hurricane causes harm to you. You leave with your family and then you come back and take care of the family situation and your home. You get things in order and then you go tend to the business. I will share with you that I was supposed to go on a vacation for three weeks the week after the hurricane. Well, it was an easy choice for me to say, "Well, how can I go take a vacation if there is need in not only my department, but at Stennis as a whole. So, I made that choice to go help at work. I've taken care of my stuff, now go help others and help Stennis. I think that if you follow those three then at the end of the day or when you go and look back you are going to feel pretty satisfied that you did your part and you made the right choices. That's how I feel about it. It was an easy transition for me. So, I recommend to people to think of it the same way, always put family first. In a situation like this where there is so much uncertainty, make sure you give yourself time to leave the area. Some people might question why did I wait until Sunday. Well, when you look at the situation and you look at evacuation and all that, it was a safe approach to take. I would have made a different decision if I would have known that Sunday was a bad time to leave. So, I would have left earlier. So, the other part is communication. Let people that you know, know where you are and that you're

O.K. because they are also worrying about you. That is sort of my advice. From that point on, help rebuild the community. Be part of the community to get it rebuilt.

**MARTIN ORAMOVS:** How do you think we are doing now?

**MIGUEL RODRIGUEZ:** I think we are doing great. Under the leadership of Bill Parsons and contrary to the belief of others as to what our involvement should have been or should be, we did extremely well. I don't know how else to put it. To be able to do through people like Steve Brettel the type of interaction he did with FEMA, it simply wasn't about Stennis. I think the whole State benefited from that. The local families and neighborhoods did benefit from it. There is still work to be done because it is a daunting job to get our hands around this, but I think that Mississippi is doing very well thanks to the leadership not only from the State, but locally as well as help from FEMA. I think we are moving along fairly well. I don't have the experience of having gone through the previous hurricane like Camille. But listening to people like Roy Estess that have lived through it as well as Betsy and others then I feel we are doing fairly good based on that description. They say it is going to take about 5 years if not more. It's going to be slow, but we're doing great.

**MARTIN ORAMOVS:** Is there anything else that you can think of that we haven't touched on or that just comes to mind that just stands out in your mind? Whether good or bad?

**MIGUEL RODRIGUEZ:** Not really, like I mentioned earlier, having been exposed to hurricanes before, but in another country, Puerto Rico, which is a completely different scenario because of the construction in Puerto Rico, having seen the devastation, I think that as a community we ought to all be very proud of what we have been able to do up to now. When you think about it, this happened the August 29, and here we are in January and when you look at the amount of people that we have found housing solutions and food and supplies through FEMA and the interaction with Stennis, then you have a sense of accomplishment. The Navy has done a fabulous job taking care of their people. The other Contractors have done a great job also taking care of their people. Here we are in January and I think that it's commendable when you think about it. People found the time to spend Christmas and allow themselves some time. One of my big worries is that people are over exerting themselves and they are not resting. That's my conviction as why the work is important because it forces the individual to balance, but on the other hand I worry sometimes if by keeping on with the work then it creates a stress at home and then things become unsafe and then you start hearing the cases of people getting injured. I really think that for mental balance the work is important because it gives them a sense of something is going to continue even though around them grocery stores, businesses are closing or businesses don't have employees. At least there's a certainty here that is going to continue since we are getting support from not only the state, but from the Federal Government then it all helps that process. So, I'm very positive about it as you can tell. I still have a tarp over my house and one of these days I will get some roofer to come put a roof over it.

**PAUL FOERMAN:** To kind of follow on about what you just mentioned about work being important, on Oct. 12, 2005 we had the first RS-68 test, the first test of any kind after the storm. Then, on October 25, 2005 we had the first SSME test. Tell us how important that was and what kind of sense that gave you that we are going to get through this thing and we come out as a Center doing what it is supposed to do after the storm.

**MIGUEL RODRIGUEZ:** It's sort of what I mentioned before. I recognized. Immediately after the storm, there were discussions to start the testing immediately. That probably wasn't the right choice to try to have it immediately because we still didn't know all the situations and where people were and how it was affecting them. But, it was important as soon as practical to get back into testing because it not only means about what it does to your employees, the community can relate to that because everything else around them is gone. I mean the aquariums and arts and galleries and places like that that people are used to going. The schools were closed. Testing an engine would start giving the people the feeling that we are getting back. So, we felt and I felt that the sooner we could get into testing as long as it was safe for the people and the people had the attention to put to it, that it would help not only individuals, that's the #1 goal, but also the community would know that we are coming back. That was the importance of it. It really did that. We had FEMA here. They had never seen an engine test. That by itself gives them a boost because being on their end is not something that makes you go home every day happy because you can not take care of all the issues. It is a very demanding job. It takes people's minds off of issues and problems and makes them see something that they are comfortable with and it is a beautiful thing to experience and see by the way.

**PAUL FOERMAN:** Making the employees the #1 priority after the storm is a great thing. People took care of their personal lives, themselves. Once that was kind of taken care of then they could focus on work more. Great concept and I commend Bill or whomever that came up with the idea of this is what we've got to do. A pretty easy decision I think to be made. Then your job in the housing area was a vital part of that. Could you give us that perspective of taking care of the employees first?

**MIGUEL RODRIGUEZ:** As leaders, leaders are confronted and that doesn't mean only my position because we have leaders through the whole organization when you go look at the whole effort, I can name many individuals down at any level of the organizations that are leaders. We bestow on us the responsibility to bring the place back into running. I think one of the key factors that made us so successful is that Bill from the start felt that it was important for Stennis to worry about the people. We knew we had critical facilities and we play a vital role in the vision for exploration, but the people is what is going to make you get there. Sometimes, leadership forgets about all that and they just think about the end whether it is a year or two years from now. I think it was a key factor for Bill to keep all the leadership sort of in that direction, saying, "Help the people. We are going to get criticized and I'll take care of someone complaining because we did this or we did that. We want to do the right thing. We shouldn't have to fear retribution for trying to help people." That kind of direction. That kind of reinforcement made it easy. In reality we all want to help people, but if you put the importance where it doesn't belong, then you can just forget about the people and you don't want to do that. That was the catalyst

and from that point on it just kind of took over. I mean everybody recognized that that was the most important #1 priority for Stennis and everybody fell right in line because after all that's all really what we as human beings like to do is help each other and help the community.

**MARTIN ORAMOUS:** Take care of each other and everything else will fall into place.

**MIGUEL RODRIGUEZ:** Yes, that's right. Again, another factor, you take care of the people, job and everything else will fall into place. That's why when we made the decision to kind of push up the schedule to get the facilities ready, it was seen by some as a sign of us not thinking of the people. Where I felt that it was critical for me is to be able to paint that picture that told people that we wanted to go do this, but we wanted to make sure that you have got the time to work in your house and we had to manage that every day by asking people, "How are you doing. Do you rather do this? If we are going to do an engine test, do you have things at home that you need to take care of." Some individuals came forward and said, "I can not be the test conductor or I can not do this." We said, "Fine, perfect. Go take care of your stuff at home." If we didn't have another person, we delayed the test. It's a tough line, but it was the right thing to do. I think we did provide to people the avenues they needed to relax and enjoy things.

**MARTIN ORAMOUS:** I know you worked on some of the crews that went out into the community and tried to help bring peoples' homes back to living conditions and clearing trees and debris. What did that mean to you, to be able to work with other people like that?

**MIGUEL RODRIGUEZ:** I'll tell you. I will tell you what it means. What I enjoyed the best is to show up at a house and I didn't have to worry about taking the leadership because I knew nothing about cutting trees. You can sit down and analyze it and that kind of stuff, but it's not something I do for a living. There were many employees at Stennis, work groups, that worked for me or other organizations that through their life had experience and the skills to do those kinds of things. It was great to just show up and say I'm here to help. You tell me what you need me to do. They will give you gloves and give you a chainsaw and tell you the 1, 2 and 3 most critical things about a chainsaw to keep you from hurting yourself and off you go. You go do it. We helped one lady whose husband had to work fulltime, actually probably over 20 hours a day, clear their house of trees that were about to fall on their house because they were stressed by the hurricane. We spent from about 9:00 in the morning to 6:00 in the afternoon. The lady cooked and fed us and we had about 10-12 people and it was just great to see the talent. That's what I said. Leadership is all over the organization and we have to recognize who are those that have the leadership for certain things. It was great to see that. It felt great at the end of the day to say, "Wow this is super." I didn't go as often as I would have liked to go because of the housing committee, but the times I did go it was very rewarding actually.

**MARTIN ORAMOUS:** Unless there is anything else for you...

**MIGUEL RODRIGUEZ:** That's a wrap.

*(End of Interview)*