MMS OFFSHORE GULF OF MEXICO

ORAL HISTORY PROJECT

Interviewee: Steve Huttman

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Interviewer: Jason Theriot

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Bio

Steve Huttman spent 22 years in the U.S. Coast Guard, serving various capacities in maritime security and rescue. He moved to Houston in 1998 and began at G&H Towing as a mate on a harbor tug. He is currently the Port Captain for G&H Towing, a harbor tug business that operations a feet of 28 harbor tugs from Corpus Christi to Freeport and the Houston/Galveston Ship Channel. The fleet performs ship assist, particularly for the pilots bringing in large oil tankers and container ships.

Tape 1, Side 1

JT: This is an oral history interview with Steve Huttman, H-u-t-t-m-a-n, of G&H Towing, on 23rd August, 2006, by Jason Theriot, Steve Huttman on the Port of Houston Ship Channel, tape one.

SH: Okay, I'm Steven Huttman from captain to port captain at G&H Towing Company. I've been with G&H Towing since 1998, but before that I spent twenty-two years with the United States Coast Guard, serving in a number of different capacities, as an officer in charge of a Coast Guard harbor tug, two Coast

Guard patrol boats, two Coast Guard stations, and then had an opportunity to serve on an aides' navigation team and a Coast Guard lifeboat station, when I first got out of boot camp.

So I've got about twenty-nine, thirty years of maritime experience, operating small crafts, small boats, and harbor tugs. Started out at G&H Towing as a mate on the harbor tugs, what we call quartermaster, which is a second licensed person who can drive the tugboat, promoted my way along, went in the company up to being relief master on one of our Z-drive harbor tugs, was the first mate on the first Z-drive harbor tug that was brought into the Port of Houston, and have been serving as the port captain at G&H for the last two years.

JT: Where are you from, sir?

SH: I was born in Key West, Florida. I was a navy brat, so I traveled around quite a bit, grew up in New England, spent most of my Coast Guard career in New England and then on the West Coast, and in 1997 when I retired after twenty-two years I moved down to Houston, because my wife's family had moved down here to settle in the Houston area, so this is where we planted the roots and began a new career.

JT: Doesn't seem that you were ever too far from the water?

SH: Never, never. I think that's the whole thing with a mariner, is you've got to, every once in a while you have to have and see the water, or be out there. So sometimes I miss it, you know, being in the four walls of an office now as a port captain, I miss immensely being out on the water every day, and the things you do out on the water. But the nice thing is, I can get out of the office, go get in my truck and go find a harbor tug and jump on it. [laughs]

JT: Tell me about your dad. He was in the navy?

SH: My dad spent twenty-six years in the navy, served in all three, well, World War II, Korea, and Vietnam, and had over nineteen and a half years of sea service while he was in the navy for twenty-six years, so not much of that time was actually ashore. So we moved around quite a bit. We were in Key West, Florida, Great Lakes, Illinois, New London, Connecticut, Newport, Rhode Island, so definitely the life of a navy brat, and that's kind of what drew me to the maritime industry to begin with.

But then I kind of saw these white boats with red, white, and blue racing stripes on them, and when I joined the Coast Guard in 1976 their motto was "the lifesavers." They were known as the people who went out and saved lives, such as the recent feats of heroism we've seen with the Coast Guard with the Katrina and Rita hurricanes, that's what kind of induced me to join the Coast Guard. So I had my fair share of opportunities to rescue people, save lives, and be at major marine incidents.

But after twenty-two years of that it was time to settle down and quit moving, because we moved seven times in twenty-one years, so it meant uprooting a family and transferring, and going to a new place. So twenty-two years of it was enough, and figured then it was time to put down some roots and stay in one place and do something.

JT: You know, in my opinion the Coast Guard, U.S. Coast Guard doesn't get enough coverage and appreciation for what they do. Why is the Coast Guard so vital to our nation?

SH: Well, the Coast Guard, well, I mean, they're an absolutely unique service, and they don't sell themselves very well. They've been moved around through a

number of different departments, but you know, without—the forming of our nation to begin with, their first service as a revenue cutter service in 1790, when Alexander Hamilton, the first Secretary of the Treasury, decided we needed to stop smuggling after the Revolutionary War, they commissioned ten revenue cutters, and that was the founding, the basis of the United States Coast Guard, the oldest continuous seagoing service in the United States.

Actually, older than navy, because the navy existed, the Continental Navy existed, then was disbanded, then was reformed. So the Coast Guard is continuous, has been in service since 1790. So they began, you know, by this small, fledgling nation that needed to gain revenues on imports, because we are a seagoing nation. Everything that comes to America either comes to America or goes away from America, and it goes by water. So they needed to get control of that, and that was the foundation.

Later we added the United States Lifesaving Service, the Lighthouse Service, and the Boiler and Steam Vessel Inspection Service that in 1915 became the foundation of the United States Coast Guard. All those times, Coast Guard stayed in the Department of Treasury, and in 1967 they moved to the newly formed Department of Transportation, and then have recently moved again to now the Department of Homeland Security, and is right back next to where they were before, working alongside United States Customs and whatever, that all moved out of Treasury.

So why we need them is because they provide a myriad of services that no other agency in the federal government can do as quickly and as efficiently as the Coast Guard can, with a small group of people, because it's a multi-mission service that has both law-enforcement capabilities, national-defense assets, search and rescue, saving lives, protection of property, environmental protection, I mean, you name it, ice-breaking services in the Arctic and the Antarctic.

People often think of the Coast Guard as they're only here in the United States, but we have Coast Guard inspectors overseas, we had Coast Guardsmen die in Iraq during the Gulf War, so I mean every battle the United States has ever been in, the Coast Guard has been there as well.

JT: That's an impressive résumé.

SH: Yes. But they just don't do—they're kind of a very humble service that hasn't done a very good job of kind of advertising themselves, you know. The Coast Guard's entire budget was probably, I think at one point when they wanted to get into the advertisements for the Super Bowl, and most people recognize that the United States has four armed services. When we think of that we think of the army, navy, air force, and the marines. The reality is we actually have seven military services, or five armed services. The United States Coast Guard by law is an armed service of the United States at all times.

But we don't advertise it, because when you see the commercials for the armed services you don't see the Coast Guard, because it's in a different department than the Department of Defense. But the Department of Defense's recruiting budget is probably the Coast Guard's whole budget, you know, so we don't see it that way.

JT: That's interesting. So what was, gosh, twenty years, it's probably difficult to sum this up, but what was the number one thing about maritime that the Coast Guard taught you?

SH: Number one thing, boy, there are so many things. I mean, safety, protection of life and property, and saving lives and property on the seas, that's probably the biggest thing. I mean, that's what was the fundamental thing that drove me throughout my entire Coast Guard.

I may have done a number of different things throughout my Coast Guard career, but it always led back to saving lives and property at sea, whether or not it was at an airplane crash at Logan International Airport in Boston, where a plane crashed and people were in the water and we were rescuing them, or being out at major oil spills, or incidents, the influx of the Cuban refugees in 1995, as well as the Mariel boatlift before that, where we were saving lives at sea.

But it all runs down to that you could expect the Coast Guard to always be there. You know, when you're in danger on the sea, the one thing you want to see is a Coast Guard boat or a Coast Guard helicopter.

JT: They're the first responders.

SH: Yes. You know, as soon as they could fly in Katrina, the helicopters were up, and the boats followed immediately thereafter. So they moved all their assets away to protect themselves, and as soon as they could get back into the game and go out there and save lives, and that's the Coast Guard's core mission. I don't know any Coast Guardsmen—there's no feeling like the feeling of saving somebody's life who's in peril in the sea, and rescuing them. There's no greater feeling in the world than that.

JT: How did your career with the Coast Guard help you here at G&H?

SH: Well, it exposed me to a number of things. I was a boat operator, I drove every small craft that the Coast Guard had, the boats that are designed to roll over 360 degrees, come back up running in heavy surf conditions, the maintenance of vessels, the repair, the safety regulations on vessels, the enforcement of all those regulations.

What I did at the Coast Guard is now, I'm actually making sure that we're complying with those regulations as part of my duties in training masters and mates here, to ensure that our vessels are operating in compliance with those standards, and that we're maintaining and operating our boats that way, so there's a direct parallel, and the understanding of being able to understand what the Coast Guard's perspective is in terms of rules and regulations, and how now industry has to make sure we comply with that, and fulfill that safety requirement.

JT: Wow. So with G&H you've mentioned that there's twenty-eight harbor tugs that your company operates?

SH: Right.

JT: What is the jurisdiction, or how far distance does your company operate?

SH: G&H Towing Company has been in existence from 1934. We operate a fleet of harbor tugs in the Ports of Houston, Galveston, Texas City, Freeport, and Corpus Christi, Texas, so we operate in all those ports. That fleet of twenty-eight boats will be divided up to two or three boats in Freeport, four to five to six boats in Corpus Christi, then the remainder operate between the Galveston area and then all the way to the turning basin in the Port of Houston. So they'll be spread out and interspersed between those areas.

Now, G&H Towing Company is, in effect, an operating company for the two companies that own our harbor tugs, and that is Bay Houston Towing, and Suderman and Young Towing Company. They own the harbor tugs, and they're under a bare-boat lease to G&H Towing Company, which is responsible for operating the tugs, manning the tugs, maintaining the tugs, fueling them, and performing the ship-assist missions.

JT: And as the captain here in Galveston, you're the Galveston captain, what is your major responsibility for the company?

SH: Okay. My responsibility as the port captain, I'm to oversee and do evaluations on our masters, and on our tugboats we have two different crews. We operate a four-day-watch schedule currently, four days on and four days off, so we have a master on one watch and a relief master on the other watch, as well as two quartermasters, one on each watch.

My job is responsible for their training, compliance with the company's policies and regulations for the operating of the tugboats, evaluations of the personnel, scheduling them for training, or getting their towing officers assessment records. I'm one of a number of designated examiners that can sign people off for getting their license as a master of a towing vessel, and I'm the chief designate examiner for the company, so I actually interface with the Coast Guard in order to get our masters certified to become designated examiners.

JT: Great. Outstanding. Let's jump into some of the questions here about the history of the channel, the port, and I'd also like some of your perspectives, since we are on Pelican Island, some of your perspectives on how this area developed, and then we'll jump a little bit later into some more detailed questions about the actual tug itself, Z tugs and some of the new technology that's coming out.

We're here in Galveston today at Pelican Island, and as I drive by Harbor Drive I see a very different landscape than you do when you drive down, let's say, Turning Basin Drive. Two different worlds. At one point in time, obviously, Galveston, right here located on the northwest Gulf of Mexico is a natural seaport, but over the last century Houston has really surpassed Galveston in all phases of maritime development. What do you think caused that?

SH: Well, I think the primary cause was everybody recognized after the great storm of 1900, the great hurricane, how exposed Galveston was to the potential for hurricanes and damage. But the real issue, I think, is space. Galveston Island has a very small channel that may be about, what, two and a half, three miles of docks. And yet, what you see in the Port of Houston is docks, because they have space, that range from—although the distance from the sea buoy to the turning basin is fifty-two miles, twenty-five miles of that space is docks along a whole pile of the ship channel. I think 133 or so different berths along the ship channel.

So the diversity that can be spread out over that great amount of space, and plus their access to railways and the other hubs of an intermodal transportation system, is what has allowed Houston to expand greater, because just the sheer size. Galveston just doesn't allow the movement of all that commerce in such a very narrow area.

Yet when you go to Houston you'll see everything moving from containers to petrochemicals to steel to wind turbines that are coming in for setting up wind fields out in West Texas, to coffee, to bulk cargoes and grain, cement. So there's such a diverse type of cargo that's coming in, that you just couldn't have those various, different types of facilities all located on this small section of available channel in Galveston. You know, it was just a natural fit.

And though the channel gets bigger and wider, even though the channel's getting bigger and wider, the ships are getting bigger, deeper, and longer, so the available channel width's the same for that ship, but we're bringing more and more cargo in.

JT: Well, I understand what you're saying. Galveston Island itself is limited in its size and its capacity. But if we back up, let's say a hundred years ago, Houston

Ship Channel was a ditch. It was Buffalo Bayou, and those berths that you mention—

SH: Didn't exist.

JT: —didn't exist there until well after the turn of the century, or probably around the first couple of decades of the 1900s. So it must have taken some visionaries and some financial backing in order to make that process happening, turn a ditch into a ship channel.

SH: Right. Right. Oh, absolutely. And like I said, Bay Houston Towing, I think they date back into the late 1800s, with Captain W.D. Hayden originally founding the Bay Houston Towing Company, going along the ditch, and the mules and helping ships in, you know, along the pre-existing ship channel, until it was officially opened, what was that, 1927 or so, when we opened the official ship channel, which was a first of its kind project, where a public entity other than the Congress of the United States contributed toward the dredging and the creating of a ship channel, which was now—and anything that the Congress, where they appropriate money, always now requires at least some local or state input in funding.

Well, the Houston Ship Channel was the first project that actually started that out, because it would have never gotten sold through Congress unless the local politicians came up and said, "Hey, we'll contribute, because we see some benefit in this." And then we've started with a channel, I think, that was twenty-five feet, and today we're seeing a channel that's forty-five feet deep.

But you can't do this in other natural harbors, you know, and I've operated in places such as New York, Boston, Portland, Maine, Seattle, Washington, etc., but you have fixed stuff. What we have the benefit of down here in Houston is, we're running basically in the mud, so we can just dig the mud deeper. Now, if you

were in New York and you get to forty-five feet and there's rock at the bottom, you're not going to blast all the rock out in order to bring bigger and deeper ships in.

So the beauty of the Houston Ship Channel is that we can shape and carve the ship channel without all the huge costs that you would have with blasting and dredging in rock harbors. Now, on the West Coast what's basically had is very, very deep-draft channels, like in Seattle there are spots where you run into the Straits of Juan de Fuca, the water depths are over 660 feet deep. But you also have all this rock, and it's not as safe and as easy to bring the vessels in, and it's also not in a convenient place to hub and distribute all the materials, whereas Houston has access to both East and West Coast, and middle America, by its just natural geographic location.

JT: Yes, it is sort of a wonder of man's engineering marvel.

SH: Absolutely.

JT: Look at it from where this channel has come over the last hundred years, and then the wherewithal of some of these individuals to know about what we're talking about today, you know, at the turn of the century.

SH: Right. Oh yes.

JT: And to be able to implement it, using public backing, public and federal funds.

SH: Oh yes.

JT: It's amazing. Along the same line of thought, if you look at some of the other ports, like Corpus Christi, Port Arthur, Beaumont, in referring to the oil industry

now, which is where oil was discovered in 1901, Spindle Top down there, those are natural seaports, developments of decent population, and it would appear to one looking from the outside that those two areas, Port Arthur and Beaumont, could have easily become mega-petrochemical industries, bigger than what Houston is. Why is it that a Houston Ship Channel, Port of Houston emerged?

SH: Well, I think the local authorities got out, the visionaries in the business community, and the politicians and stuff, they saw the benefits or the synergy of what the port could offer, and didn't look at it through a kind of microscopic view, but saw a broad view and said, "Well, look at all the different things we can do." And then they've also promoted their port in order to bring in more opportunity.

So I think a lot of the credit for the growth of the Port of Houston really needs to go to the public entity that was built to create the infrastructure, which then the natural vacuum, all the other industries are then tied to it or just attracted to, whereas if you only are looking at one segment of a community—now, those other ports, Beaumont and Corpus Christi, they bring in lots of chemicals, lots of cargo, but the mix of the cargo isn't quite as diverse as what you see in the Houston area.

So not only is petrochemical one of the major issues that are in Houston, and the ability to interconnect with other factories and plants and facilities that actually need those resources, but the fact that they can bring so many different types of commodities in, so that they're not just a one-stop town, and all we bring in here is chemical tankers. But we bring everything from small break-bulk cargo vessels to, you know, grain or feeder vessels that then feed the Caribbean and Central America, all out of Houston, a natural place, which just allows for that mix of traffic and commodities.

JT: What type of impact has the offshore oil and gas industry had on Port of Houston?

SH: Oh, it's huge. I mean, the Port of Houston, I mean we dock, on average, two to three large crude carriers of crude oil every day.

JT: The lighters?

SH: Yes, coming in, lightering vessels that come in every day to feed the various petrochemical plants and refineries. We operate Baytown, you know, from Exxon Mobil, the largest oil refinery, so they've got to have the feedstock in order to turn that into various other products. So every day we can count on twenty-four hours, we're going to sail a vessel out of Exxon and we're going to bring a vessel back into Exxon, or Shell crude, or Lyondell Citgo, or BP Amoco down here in Texas City, so, I mean, there's always that demand for traffic, because if they don't have their feed they're not going to continue to produce their product.

So, I mean, it has a huge industry, and then on top of that, all the refined products that then need to move from one factory or one plant to another plant. The easiest way to move that stuff in bulk is to move it by vessel. So now you have feeder service from Dow Chemical and BASF down in Freeport that needs to bring product up here to LBC or Oddfells' docks in Bay Port, and then from there they've got to bring it up to Stolthaven or over to ITC terminal.

And so, I mean, that feed just continues to move off of the one product, because they're all petrochemical products that are all driving that one source of business, with each one a separate segment of it.

JT: How do you guys keep control of all of your ships and all of your clients?

SH: It's huge. Now, we as the operating company just operate the harbor tugs, so we work very closely with the Houston pilots. We have our own dispatch office that is actually located with the Houston pilots in an adjacent room in their building at the South Loop off of 610, and we work very closely. We have communications with our tugs 24/7. We recently built a very sophisticated system using an automated information system, which they call AIS, which is where our tugs broadcast their position, course, and speed, so that we can see them visually on computers, and see where they're located at any given time, and then try to meet the demands of the shipping, you know. So it's a 24/7 operation. Our tugs operated 24/7 providing ship-assist services.

JT: Well, it sounds like technology is certainly in your favor. Tell me a little bit about some of the pioneers of this tugging industry in this area. What were some of the earlier tug masters like? How did they operate?

SH: Well, tugboating has been around for a long time, because what they realized early on was you had these large vessels that operating in a narrow channel become very cumbersome. They don't behave very well in restricted areas. They're designed to operate at sea, and now we need to bring them into a little harbor or dock, and when they don't do that all that often, you need some help to get you to the dock, either getting you away from the dock or to the dock.

Sailing vessels used to do it with their own crews out there rowing vessels, and so we move from, you know, steam-powered tugs to diesel-powered tugs that we have today. But tugboating has moved along with the shipping industry. But, I mean, obviously the old-timers, and they often go back, you know, were operating with manila or hemp rope, which today we use rope that is high-modulus [phonetic] polyethylene line made out of—basically the plastics that we help bring in, now makes the ropes that actually we attach to the ships, that are

stronger than steel, lighter but stronger than steel, and made out of drawn plastics and plastic fibers.

So, I mean, we've come a long way, and the technology of everything continues to move along, from the ropes to the number of people you have on the vessel, to the size of the vessels, to the horsepower of them, and our fleet actually represents that today. We operate some tugs dating back to 1960s, single-screw harbor tugs with only, say, 2100 horsepower worth of power, to the current largest tug we operate is a twin-screw Z-drive with 5100 horsepower. And we're currently in the process of constructing two more tugs that are going to be 6300 horsepower. So, I mean, the power continues to grow, and harnessing the technology.

JT: Let's talk a little bit about that technology, now that you've mentioned it. If you talk about the crewmen rowing their little rowboats back in the day, with the mast ships and then the steam power, and now we're talking about Z drives and technology, which is really fascinating, and as you say, it's technology that is continuing along the same parallel pattern with the shipping industry. Tell me why, tell me first of all what is Z-drive, and why is it necessary on this channel?

SH: Well, what Z-drives do for us is, a Z-drive, basically it's called that because it basically looks like a Z. You have a shaft that comes in at the top, with a reduction gear that then drops down vertically to another output shaft, so if you were to draw out the linear of the shaft, it would look like a Z. At the bottom of that you have a propeller, like we do on a current tug. The benefits of this are, though, that you have an azimuthing drive, a drive that has the ability to spin 360 degrees.

So you have unlimited versatility of where the thrust can be located, versus on a conventional tug you have a fixed propeller, and a rudder behind the vessel that may have up to forty-five, in some cases some tugs sixty degrees of angle as the

maximum angle that you can throw your rudder over, and that limits the tug's ability to do different tasks on a ship. Whereas Z-drive, you have unlimited possibilities in terms of how you adjust the thrusters in order to thrust the tug, in order to maintain position on a ship.

And for a pilot, often they're looking for when a tugboat is working along a ship, that the tug stays in a relatively stationary location, and provides his thrust in a given direction, and a Z-drive can do that at ninety degrees to a ship, so that the pilot can count on that vector that the ship is going to be moving sideways, whereas a conventional tug might throw his rudder over and be working full ahead, and the best angle he might be able to maintain is forty-five degrees.

But a Z-drive can get all the way out to ninety degrees, so rather than having to then work with that vector, he can just understand that I'm going to move this tug right sideways. Then, of course, I mean it just opens up the whole world of what you can do with a Z-drive tug. I think our operators, we brought the first Z-drive in in August of 2000, the *Matthew K*. It was a 4300 horsepower Olstein, with Olstein Z-drive units on it.

And, of course, we gathered a bunch of different operators from the company who'd never run Z-drives before, sent them out and worked on a Moran tug in Charleston, South Carolina for two weeks, and then we basically came back and said, "Okay. Well, here's your Z-drive, and go figure out how to drive it." So cooperating with the pilots and our operators, we kind of developed and found that, really, the limitations of a Z-drive is not so much the vessel, but the vessel operator's ability to make the boat do what it's capable of doing.

JT: And it's still brand new?

SH: Yes. And in the five, six years that we've been operating now, we have built a huge pile of very experienced operators that could push the limits of what the tug's capabilities are, you know, so where you can get to a tug that actually could run backwards in front of a ship, and put a line up while running backwards, and put a line right up through the stem of the ship, which no conventional tug could even consider doing.

So, I mean, it changes. As most of my operators will tell me, it changes their whole view of tugboating, because now when going alongside a ship or going to do a task with a ship, they have numerous options that they can choose from to employ, to help the pilot do his job, which in the past they would have had only one or two ways that you could only do this, because you just can't overcome the physics involved.

JT: And the second part of the question, sir, why is that technology so necessary on this particular channel?

SH: Well, we're doing a number of things. In Houston we operate some very large ships, carrying some dangerous cargos, and these tugs have the capability of providing a tethered assist that provide a level of safety that an existing, conventional tug couldn't do. So for the case of these chemical tankers, or crude oil tankers that are currently coming in loaded, we will often provide a Z-drive extended-tethered assist onboard these vessels, where they're made up over the stern, and they could either provide braking forces or steering forces on those ships, which gives the pilot a little comfort to know that should they have a steering failure or a loss of main propulsion, that they have some means to gain control of that vessel, because we take these huge vessels and operate them in such a narrow channel.

So that gives us an ability to control the situation, and provide some level of assistance that we couldn't do with a conventional tugboat. And the ships we're getting are getting bigger and deeper, so we're now docking container ships that are 994 feet long, with 77,000 horsepower engines in them, and we have to be able to control their speed. In order to control their speed you need to put a tug out behind them, and the only tugs that can do that effectively are the Z-drive tugboats.

JT: What would some of the earlier tuggers, let's say in the twenties and thirties, what would they say about this new technology?

SH: Oh, they couldn't believe it. You know, matter of fact, most of them, even guys going back twenty years say, "I don't even know how you guys can run those things," because they just don't understand the theory or the concept of operation, you know. They see what they can do, and go, "Oh my gosh, that's really incredible what you can do with those boats." But, you know, they're still back in the old school of, "Well, this is the way we used to always do it."

You know, we often think that with this newer technology we have some guys who are able to adapt to it very well, lessons of, you can't teach an old dog new tricks. Well, sometimes we can, as long as you're open to the new ideas of doing things completely different, that you wouldn't ever consider doing with a conventional tug. So we've had some success in doing that.

But generally we find that it's the younger operators who really latch onto this technology, and the ability to adapt to it, because you're driving a vessel now with your hands on two separate controls, with two hands independently operating like joysticks, so the Generation X and the Generation Y now have the ability to operate one of these tugboats this way, because they're very comfortable in that kind of environment, whereas the old timers want to put the engines in gear and

wait for the delays, and we have two big throttles, so it can be very daunting to somebody who hasn't seen one before.

JT: Interesting. What is your perspective on the pilots and how far this group has come, and how important are they?

SH: Basically, the pilots are the conductor of the symphony. In order to bring a vessel into port, you have to have that pilot with their unique experience to bring the vessel in, with the handling characteristics, understanding the channel, and then he's the guy who conducts the whole process. But it's not a one-man show for anybody, because even the best of the pilots will say, "I need these tugboats. I need them here."

So now we have our tugboats, and now we have tugs with very experienced masters on those vessels, that provide a unique skill. Then when we get that vessel up next to the dock, we need to have the line handlers who need to make sure that they can run the lines and get the vessel securely moored, you know, so it's really a symphony of people and agencies that have to turn these vessels around. But basically, the pilot's the conductor, telling our tug master where to go and where to get ready, and what the plan of attack's going to be. And then he counts on that tug master's skill to be able to go out and execute that.

JT: What about the Coast Guard? You've had some experience in there today. What about the Coast Guard on a ship channel, what types of role do they have here that may be different and unique from other ports?

SH: Well, Houston is unique in that we have a vessel-traffic service here, a mandatory vessel-traffic service, which they give the pilots and our tug operators and the other users of the waterway a picture as to what's going on around the ship channel. So it allows you to see beyond the bend, know what's coming up, know

what to expect, and that's not mandatory in all ports in the United States. I think only thirteen ports have a mandatory vessel-traffic system in place.

That adds another level of security, and an ability to see the big picture as to what's going on, and to help prevent accidents before they happen. The Coast Guard's instrumental in maintaining the aids to navigation which all mariners rely on, whether it's from a push boat to the recreational mariner, to the large ship, where the buoys are, where the beacons and lights are all working, in order to show me the path, in order to bring the vessel into port. So, I mean, that's a critical role as well.

They provide the safety, environmental response for oil spills, as well as safety of life at sea, and rescuing mariners with their small craft as well. So, I mean, they all kind of go together. This really needs to be a partnership between all these agencies. No one agency or one individual can make the port function. It requires teamwork from every agency, all pulling in the same direction toward the desired goal, that's going to continue to make the Port of Houston, and continue to grow.

JT: Has it always been that way?

SH: Well, I think each agency has their own perspective on things, and I think we're getting better today of building the bridges between understanding everybody's unique role within the organization. Now, the pilots, for example, are a blend of operators who come from either the deep-sea environment, or from what they call the brown-water environment, which is inland waterways or off of harbor tugs. So they bring with them a unique experience of, "This is what I remember when I was on the harbor tugs," into the pilot association, and the deep-sea guys bring in their experience from the handling of large vessels and whatever, so you now get these two worlds melded together.

I think in the course of the last year or so we've lost six or eight of our top tug masters, to become Houston pilots, and it's a natural progression, because these guys work with handling these ships all the time. They know how to apply tug forces, what I can do, what the limitations of a tug are, and so that brings that unique perspective to the pilot organization so that they understand, well, these are the tugs that we have in the fleet, this is how they can best be utilized.

Whereas a ship captain who's very familiar with deep-draft vessels, but doesn't know what's the capability of this tug, what's the capability of this operator, and can I count on him to do this job for me, the melding of those two worlds is instrumental. So I think we'll continue to be kind of like the triple-A farm club for the Houston pilots continuing, because we bring a unique skill to that environment, you know, from harbor tug masters.

JT: Let me ask you this. Where do you get most of your feedstock?

SH: Well, all of our employees, we are a union company and all of our employees come from the Seafarers International Union, which is a maritime union that's based in Piney Point, Maryland, and so they are our labor pool, and we have a mix of masters, quartermasters, which are second officers, licensed chief engineers, assistant engineers, deckhands, able-bodied seamen, and deck engine utility people, and we get all those from the union.

Now, the maritime industry across the spectrum right now is having difficulty attracting people to a maritime field. You know, I don't think people, going to sea and being out on vessels and away from port and home is a different kind of a lifestyle than most of us are accustomed to. You can't just take anybody off the street and turn them into a mariner. You know, mariners, they have to have a love

of the water and being away, and solitary, you know, that whole kind of a nature. It takes a certain type of individual to be a mariner.

But we're looking. Opportunities for employment and the opportunities down here are wide open, and probably as wide open as I've ever seen. It's always been, you'll see within our fleet families, generations of people who've been doing tugboating for years. The Hayden family of Bay Houston Towing has existed and continues to perpetuate. You know, they've been in this tugboating business for over, I think, a century now in their family, so it's a hand-me-down, learned skill, and for many of our operators it's the same thing.

Their grandfather was a tug master down here. Their father was. Now their sons are working for the company, and a lot of the tugboating industry is very much like that. It doesn't matter whether you go East Coast or West Coast.

JT: And I guess you guys probably get a good bit of young mariners from the Merchant Academy right here at Texas A&M.

SH: Yes. We get a number of third mates here that come down here to get their towing endorsements for their licenses. We've got some King's Pointers as well from the United States Merchant Marine Academy. It's another avenue within the broad framework of the maritime industry, because we can have deep-sea vessels, or offshore supply vessels, or tugboats and push boats. I mean, there's a whole—there's even segments within each little group of the industries, people who specialize in running the rivers, people who specialize in ship-assist work, people who specialize in offshore supply vessels, etc.

Time for a tape change? I'm talking too much.

JT: No, go ahead, this is great. Tell me about the two big accidents that you've experienced over the last ten years.

SH: All right, the two, and the one I didn't personally witness it, but it happened just before I came onboard G&H Towing, so I think it was somewhere in 1996 or 1995. *Laura Hayden* was one of our single-screw flank-and-rudder tugs, ended up involved in a collision with a Stolt [phonetic] tanker at the intersection of the Gulf Inter-coastal Waterway, and the Houston Ship Channel, at twenty-five twenty-six. It's actually a very dangerous intersection. There's lots of traffic there, crossing traffic.

From what I understand, they made a passing arrangement with the vessel. The tug may have had a steering problem, and ended up crossing in front of the tanker, got ran over. We lost three people on the tug, who died. The tug was rolled underneath the vessel, underneath the Stolt tanker, and one of the crew members survived.

So I remember vividly being instructed when I first got down here as a mate, to understand the ability to change from—if you were to have a steering failure on these type of tugs, what procedures you needed to do in order to regain steering so that you could get control of your vessel, because this big accident had cost the loss of lives within our fleet.

On the second one, where no people were injured, I think had to be I guess about 1999, was with the tug *Jupiter* and the *Big Red Boat*, which was a cruise ship that the Port of Houston had coming into Barber's Cut Cruise Terminal. It had on that side of the vessel, it was a twin-screw vessel that had propeller guards on the side of it, and the tug was actually alongside the vessel and laying against the propeller guards when the pilot of the ship had to reverse the ship's engines, and the tug

actually sank down just a little below the propeller guard, and the propeller struck the side of the tug *Jupiter*, and cut three—

Tape 2, Side 1

JT: This is an oral history interview with Steve Huttman, 23rd August 2006, by Jason Theriot. Steve Huttman on the Port of Houston Ship Channel, oral history tape two.

The *Jupiter*?

SH: Yes. So the *Jupiter*, she was nosed in at the end of the Barber's Cut Turning Basin, taking on water. They tried to run it aground, and it ended up sinking stern first up to the wheelhouse. All four of our crew members got off, were taken off by another tugboat, so it just kind of proves that the inherent dangers associated with close-quarters maneuvering with other vessels that have appendages, propellers and things that can happen. So they dug the vessel out of the mud, picked it up with some cranes, set it on a dock, rebuilt it, and she's back in service out there again today.

But tugboating is a contact sport. If you were to look at any one of our tugboats on any given day, you'll see dents and dings, visors dented over, handrails bent over. I mean, our tug masters do, basically, a controlled collision, bringing alongside a deeply laden vessel a harbor tug that many of us think, well, these are just, they're highly maneuverable craft, but in many cases they displace 443 tons, so it's 443 tons of weight that now is going alongside a loaded tanker moving at five, six, sometimes seven knots.

You actually bring this vessel alongside in a controlled collision. If you do it right, nobody even knows you're there, and if you do it wrong, things can get

banged up and beat up in a heartbeat. Of course, tankers are probably the easiest vessels we go alongside, because they've got big, long, straight sides.

But when you get into some of these container ships that have huge flares on the bow, and very dangerous opportunities for tugboats, where they can't lay alongside the ship, where there's potential for crushing wheelhouses, bending masts, bending handrails, so on any given day at our facility down here at Pelican Island Terminal our welders may be out there rebuilding a little section of a tugboat where an operator misjudged things. But I think that's true in tugboating just about anywhere.

JT: What makes the Houston Ship Channel so unique?

SH: I think, the volume of traffic, and the close-quarters maneuvering. The fact that, you know, there's so much—I think when we were first talking I used the thing of chaos, you know, kind of like an organized chaos. There's so much activity going on at any given time, and so many vessels coming in or going out, or push boats involved, fishing boats. I mean, the level of activity that's going on, I don't think I've seen anything like it anywhere else I've ever been.

JT: And probably such a narrow channel makes it more unique—

SH: Oh yes.

JT: —than like San Francisco or New York, for example, where ships can just come right on in. It's a little bit different.

SH: Right. I mean, this is where we handle two-way traffic in a 540-foot channel, and to see two tankers pass each other in that kind of a channel, that's pretty remarkable stuff. And some of the areas where we have to turn them and back

them in, and stuff them up into some of these docks, I've never seen anything like it.

But the challenge for a tugboater is, there's never a dull moment, and the guys will often say that tugboating is moments of sheer terror, filled by hours of boredom, because once you get the ship up close to the dock, the rest of the time is you're shoving on the ship for an hour and a half or so while its lines are all being run, before they say you're all finished. But it's the moments of terror leading up to that, before the job is all done and you go back out and find another job to do.

JT: You've been here for ten years, roughly. What are some of the major changes that you've seen on the ship channel?

SH: I think the scale of our tugboats. I mean, the company here's had a very aggressive building company. I got here in '97 and since then we've built four brand-new tugboats, we've chartered in two tugboats, and we're in the process of building two more, so the new construction, the Z-drive tugboats that we've brought in, the type of tugboats.

I mean, I think that's the biggest change, you know, the move to the Z-drive tugs, and, frankly, I don't think we'll ever see another conventional tugboat ever built to service ships these days. It's just more effective. The best practice in the towing industry today is Z-drive or Voy-Schneider propulsion systems that I don't think—the day of the conventional tugboat, it's just a matter of time before they disappear, and we'll all be looking back fondly at the twin screws that we operate today, and can do such a great job, but it's just kind of a dying breed, you know.

JT: Are other harbors and ports using multiple harbor tugs, and is that something that is necessary to other areas as well?

SH: Oh yes. Yes, it is the best available technology that's out there, and we saw it move to that with the navy mandating it many years ago for contracts to provide ship-assist work for the navy, where the only tugs they will use were Z-drive tugboats, and now you see that as an industry trend throughout the industry everywhere. So Z-drive tugboats are being built all up and down the West Coast, East Coast, and Gulf Coast, to provide services, and even especially so in LNG services, where liquefied natural gas plants are being built, and those ships that are bringing in LNG, most of the contracts today are going to require at a minimum Z-drive harbor tugs, in order to provide the docking services to them. So it's become now almost the industry standard.

JT: Let's talk about—sort of jumping a little bit ahead, it's one of the questions down on the list—yesterday, BP decides they're not going to, at least at the moment, establish a terminal right here on Pelican Island. What are your thoughts on the LNG technology, and is it something that you see in the future here?

SH: Oh, I think we're going to see it. The thing is, is that most of us look at this LNG technology and say, "It's new." When I was in the Coast Guard back in Boston in 1983, they've been operating an LNG terminal in the Port of Boston since then, and it continues at the District Gas Terminal in Boston, bringing large LNG vessels into Boston Harbor, backing them under the Topen Mystic River Bridge, and backing them up to the terminal in Everett, Massachusetts. So the technology has existed for a long time, very safe industry.

Of course, the cost benefits to bring the natural gas in, you know, in terms of bringing it in in that volume, had to meet the break-even point, and that's why now we're starting to see various facilities being built. Now, we have a facility being built currently in Freeport, so just forty miles down the coast we're already going to see an LNG terminal. We have an LNG terminal being built in Sabine,

so I don't know that maybe by the time the BP project got on the drawing board and got through the regulatory process, other terminals may have been up and running, so the need for that terminal may not have been as dramatic as the guy who first came in and said, "Okay, I'm going to be up and running at this time." So I think that was one of the driving effects.

It would have a dramatic impact in the Port of Houston, because many of the security requirements for escorting and the movement of LNG carriers—no other traffic can move while that vessel is moving. So the placement of a terminal here in Galveston could have had a detrimental impact on the Port of Houston, where traffic would be delayed while that ship was either coming in or going out of port, where it could not meet any other traffic. So that could have had a very detrimental impact on the Port of Houston at the same time.

But we see LNG terminals continuing to get approved. You have one on the Louisiana side of the Sabine River, and then you have Exxon Mobil getting theirs on the Texas side, so we're going to have a number of LNG plants popping up along the Texas Gulf Coast, with a potential, I think, for one in Corpus Christi as well. So it's not like we're going to lack the ability to bring LNG in. It's just who was able to get moving first, who was first in the game.

JT: For the smaller ports, you know, obviously Houston, even though it is one of the biggest in the world, it is limited in that respect.

SH: Right.

JT: This gives the smaller ports an opportunity to bring that technology—

SH: Oh, absolutely, absolutely.

JT: —to their communities, along with everything else that goes along with it.

SH: Right.

JT: And correct me if I'm wrong, but the actual gas in the LNG, that is coming from the gulf, and they're liquefying it offshore?

SH: Much of it comes from overseas as well, and then is brought into the Gulf of Mexico on these large—what they do is basically take natural gas, freeze it until it becomes a liquid, so that they can carry it in a bulk format, so you can carry large, large amounts of it, then bring it back in and then you re-gasify it and turn it back into a gas, and put it into a pipeline.

So, you know, there's plentiful supplies of it overseas, and there's some in the gulf as well, but then you now just need to get that product in to market, and so what's the cheapest way to do that. And shipping is always going to be ships. You know, if you factor that you can put—we're bringing some container vessels into the Port of Houston now that are, I think, 7,000 TEU, tonnage equivalent units, on a ship, which could equal, I think they say, seven miles worth of tractor trailers. It's much more efficient to put it on one vessel, economically and environmentally, than to be running seven miles worth of tractor trailers.

JT: How many containers is that, roughly?

SH: Seven thousand, seven thousand containers.

JT: They're putting 7,000 on a ship?

SH: Yes.

JT: My goodness.

SH: Yes.

JT: And that's all going to Barber's and—

SH: Barber's Cut and then to Bayport, yes. We're seeing ships of that scale right now coming in. And they're talking they want to get bigger. They want to have 8,000 to possibly 10,000 TEU. A TEU is a twenty-foot by eight-foot container, so that's the number of the twenty-footers. There's forty-footers on there as well, and that would count as two equivalent units. But, yes, there's a huge volume there.

JT: Well, without giving away my perspective on this question, what do you think is the Houston Ship Channel's biggest gamble?

SH: Biggest gamble.

JT: Over its hundred years.

SH: Oh, I think the fact that somebody had the fortitude back in the twenties to see the potential here, and that was a risk that, you know, if you build it they will come. Nobody knew if they were going to come. And now they're coming great guns, and we're continuing to still build docks, so those guys who looked back then, who rolled the dice and said, "Is this worth digging this channel this extra fifty-two miles up some mud ditch into a bayou city? Is this going to be of any benefit?"

And I'm sure there were some naysayers back then who said, "It'll never work out. It's not a natural seaport." And now here we are dredged to forty-five feet, and who knows what our future may bring?

JT: Well, it's definitely going to get bigger. You've got Z-tugs and LNG ships coming in. Do you think that this new technology today, eighty to a hundred years later, do you think this is something that would surprise those early visionaries—

SH: Oh yes.

JT: —or is that what they intended?

SH: No, I think they would be marveled at what we're doing today. Just being on one of the tugboats recently when we brought those four huge container cranes into Bay Port was a marvel, to see them sitting on a tanker hull, being built overseas and brought in here, and then offloaded and put on a dock. I'm not sure people can imagine the scale of that project, you know, with those four huge cranes sitting on a ship. And to watch that thing coming up the ship channel, with a span, I think, of 170 feet or so of reach, was just absolutely incredible.

JT: You know, to me as a side note, I see something like that as a missed opportunity for the port. I would like to have known that. You know, why wouldn't you—I could imagine having a large crowd of people out there to accept this ship that came up with these four cranes on it, like the *USS Texas* that's going to be here later on in September. I'm just thinking off the top of my head of ways that the ship channel, Port of Houston, and the Port of Houston Authority can improve upon their public image. But I don't think that enough people really appreciate what goes up and down that channel, and how it relates to everyday life. Do you agree with that?

SH: Yes, I agree with that wholeheartedly. I try to tell people who I meet, you know, where I live, and they say, "You work on the ship channel?"

I say, "Yeah, but you know, you probably don't realize it, but much of the work that people do around Houston all relates to what goes on in that ship channel, one way or the other, whether it's the people at Wal-Mart who are getting their container boxes delivering to them, all of the products that are coming in by ship, being offloaded to people at Home Depot, Lowe's, the coffee, the windmills, the power generation, everything you can think of, every product imaginable."

I think of that American Plastics commercial where they start disappearing all the things that are made of plastic, and, well, if we're not bringing in those petrochemicals, you're not getting that plastic. So then you have the jobs from the linemen to the agents to the longshoremen to the pilots, to the tug companies, you know, and then the trickle downs of, somebody's got to take care of my engines, somebody's got to take care of my electronics, somebody's got to give me the rope to do the job.

I mean, the trickle down from this port is just absolutely huge, and I think most people in Houston just don't see it. They just see it as, that's the little ditch down there, it's the ship channel. But it drives all the other things that happen around the greater Houston area.

JT: Let's back up a little bit. We talked about generations of tuggers and pilots and whatnot. Would that have been possible without the Jones Act?

SH: Well, Jones Act, I mean that protects our American merchant seamen. It gives them an opportunity that, you know, the only vessels that can move between United States ports and operate United States vessels are American seamen. So

that protection allows us to continue to provide Americans the opportunity so that we don't farm out or offshore or outsource the jobs that might be done at a cheaper labor rate, but can provide a standard of living for our mariners, and the ability to compete.

Now, a lot of the ships we dock are foreign vessels that come in and out of this port. I mean, that is traffic that is kind of a global scale that we have to have. But we also need to provide jobs for our citizens, and that's one of the unique things that the Jones Act does for us as well. It protects our seamen, you know. I think that protection provides that protection all the way back into our river systems, back to the guys who are loading the stuff on grain barges and moving it down the Mississippi, and loading it on ships and putting it out to sea.

So I think that our merchant—you know, people think of our Merchant Marine fleet in the United States as, well, we don't have all these big, great, deep-sea vessels anymore. And we may not have the same scale, but when you look at the number of vessels that move product, or towing vessels, or assisting rigs from offshore supply vessels to riverboats and push boats and tugboats, you know, the size of our maritime fleet is huge. But if you only look at one segment of the industry and say, "Well, our deep-draft vessels that travel overseas, we may not be able to compete in that market," but I'm not sure anybody else can compete in our market.

JT: What about the next fifty years? Do you see us moving towards, as most of our capitalist society, moving towards outsourcing to foreign, cheaper labor; is that something that threatens what we see today on the Houston Ship Channel?

SH: I think it has the potential to threaten that. Now, we're talking about an industry that requires very skilled operators, and I'm not sure that safety and security, and protecting the movement of all this products within and out of your port you want

to have without some level of control. But here at least you know that the people who are operating your tugboats are American citizens, the pilots on the ships are American citizens, you know, so that they have an interest to protect their country.

So I think seeing it in that safety-and-security role, I don't think we'll ever see the—you know, the American merchant seamen and merchant officers are a critical facet of our whole national security system, and because of the products that we move in and out, the commodities we move in and out of the ports, I think they go hand in hand. I think that that security feature needs to be there.

There's a great benefit to America by having these highly qualified individuals who are regulated by our Coast Guard. They run background checks on you. You have credentials in order to run, so that we have some safety and security, knowing that that system's in place.

JT: Do you guys allow, or does the ship channel allow single-hull tankers or vessels that are carrying chemicals? Is that allowed to come up the ship channel, foreign ships?

SH: Oh no. Most of the vessels that are coming in today carrying regulated products are all regulated by the Oil Prevention Act of 1990 that came out, that Congress enacted after the Exxon *Valdez* spill, and most of the industry that is moving regulated barges have already complied, or I think they've even moved up the phased-in compliance for double-hull vessels already, ahead of the mandated requirement, just because it just made it safer to do that.

So any of the regulated cargo is highly regulated to ensure that you're in compliance with your flag state requirements, and then the port state control of the United States regulations for prevention of oil. We do a huge volume of

traffic, and I'd like to knock on some wood that we continue to provide the level of service that we do, without the coordinated teamwork between pilots, tugs, and the people who bring them in, that we continue to bring these products safely into the Port of Houston.

JT: We're sitting here at Pelican Island, which is a beautiful little island, lots of marine life, lots of habitat. You've got one of the largest cities in America and the world, in fact, located in communities along this ship channel. Obviously, environmental protection is a major issue.

And the way that I've seen it in doing these interviews, and in just about everything else that we're doing, particularly along the Gulf of Mexico, is we're seeing this major shift into sustainability, and it's almost taking us this long to realize what lies ahead in fifty to a hundred years. How has the tugging industry, and just your perspective in general on the ship channel, how has that conversion taken place for environmental sustainability?

SH: Oh, I think we've come a long way. We have EPA mission requirements on our harbor tugs to Tier-two-level engines. We're upgrading engines, rebuilding engines to produce lower emissions for the engines when they are running. We have policies in place at our harbor tug company to shut down our tugs' main engines when the tugs aren't being used at the dock, so that they don't produce more emissions.

We actually, the company undertook to become a voluntary, in compliance with the International Safety Management Code, voluntarily, which is another kind of level of safety management system, which one of the major tenets is environmental protection. We want to do everything we can to protect our environment, the environment we operate on, operate our vessels safely and

protect the environment, so I think everybody recognizes that in order to exist in today's environment we need to do that.

I know we're even looking at biodiesels as potentials for using biodiesel to replace regular diesel. So I think, you know, everybody's looking for how do we continue to do what we're doing, and then build on that framework to protect the environment, reduce costs, and sustainability.

JT: Twenty years in the Coast Guard, how has your world changed in post-9/11?

SH: Well, it's changed huge, and it continues still today to have major impacts on our mariners. Renewing licensing, documentation, credentialing has changed dramatically, where we now all of our guys have to be fingerprinted at each and every time they go to renew credentials. As a safety-security issue they are now coming up with regulations for the transportation worker identification card that every mariner's going to have to have, in addition to his license credentials.

We have vessel security and safety plans in place today. We have members of the company who serve on the Area Maritime Security Committee. We have people who serve on the port coordination team, you know, in order to deal with security threats. We have heightened our general safety awareness security. We have maritime safety levels now, MARSEC levels that we have to comply with that never existed before, and these are all really post-9/11 issues.

And I think we continue as a sector that has vulnerabilities that continue to need to close gaps, you know. But you have to do this in such a way that at that same time you promote the free movement of commerce, because you can't be slowing it down, and we're now starting to see some effects on the level of security checks and backgrounds of mariners, who were finding it harder and harder to stay and retain their positions in the maritime industry, because of maybe some past

indiscretions that in the past would have never been a problem, but today are now becoming troublesome for retaining your credentials.

JT: Have you found, and I know that you're involved in a lot of those committees and areas, have you found that in the last five years that simple fact, the Homeland Security regulations in post-9/11 had really tied a lot of these entities closer together as never before?

SH: Oh yes, and I think they've done some wonderful things. I think the Port Coordination Team and the Area Maritime Security Team, and the captain of the port, the Coast Guard who oversees the Port of Houston has kind of brought in the stakeholders from the industry, so now that we all talk we all have our perspectives on the table, so that we have the ability to move huge amounts of traffic, such as when [Hurricane] Rita was approaching and we needed to empty the port with all the ships that were in the Port of Houston at the time, and send them all out to sea.

Within a period of twenty-four hours we sailed, I think, seventy different ships out of the Port of Houston safely, and had them out, and then days later after the storm had passed we then started brining traffic back in to be able to coordinate that. I think if you didn't have the framework that's in place because of all of those security teams, you wouldn't get the partnership and the stakeholders together that now talk and pick up the phone so that you can reach the fellow at the Coast Guard, and who can talk to the pilots and talk to the harbor tugs, and make sure we're all on the same sheet of music and working toward the same goal. So all the oars are in the water, but we're all pulling in the same direction now.

JT: Yes. Seems like it's come full circle, and the Port of Houston is more prepared than ever.

SH: Oh, I think so. I think we've had some visionary leaders, you know, going way back, and then people who continue to have that vision, to look toward the future and to continue to build for the future.

JT: Great. Well, Mr. Huttman, good luck with the new Z-tugs.

SH: Okay. Pleasure. Thank you.

JT: Thank you.

[End of interview]

[edited by Jason Theriot, 28 November 2006]