NATIONAL TRANSPORTATION SAFETY BOARD

IN RE:	
THE ACCIDENT INVOLVING AMTRAK TRAIN #89 AND MOW EQUIPMENT AND EMPLOYEES NEAR CHESTER, PENNSYLVANIA ON APRIL 3, 2016	NTSB Accident No. DCA16FR007

INTERVIEW OF: JOHN PIELLI

Thursday,
August 25, 2016

30th Street Station
2955 Market Street
Philadelphia, Pennsylvania

BEFORE

RICHARD HIPSKIND, NTSB
DONALD HILL, BLET
THERESA IMPASTATO, AMTRAK
STEVE STEARN, BMWE
FRAN WALKER, FRA
RYAN FRIGO, NTSB
CHRISTOPHER SCHULTE, FRA
BOB BEATON, NTSB

APPEARANCES:

On Behalf of the Interviewee:

MARK LANDMAN

This transcript was produced from audio provided by the National Transportation Safety Board.

P-R-O-C-E-E-D-I-N-G-S

(Time not given)

INVESTIGATOR HIPSKIND: Good morning, everybody. My name is Richard Hipskind and I am the Track and Engineering Group Chairman for NTSB for this accident. We are here today on August 25, 2016, at Amtrak's 30th Street Station in Philadelphia, Pennsylvania to conduct an interview with Mr. John Pielli who works for the National Railroad Passenger Corporation or Amtrak.

This interview is in conjunction with NTSB's investigation of a collision of Amtrak Train 89 with maintenance-of-way equipment and employees on April 3, 2016, at Mile Post 15.7 on Amtrak's PW line near Chester, Pennsylvania in Delaware County. The NTSB Accident Reference Number is DCA16FR007.

Before we begin our interview and questions let's go around the table and introduce ourselves. Please spell your last name and please identify who you are representing and your title.

I would remind everybody to speak loudly and clearly enough so we can get an accurate recording. I'll lead off and then pass off to my right. Again, my name is Richard Hipskind. I am the Track and Engineering Group chairman and the spelling of my last

name is H-I-P-S-K-I-N-D. And I'll pass off to my right now.

MR. HILL: Good morning. I'm Donald Hill, H-I-L-L, Safety Task Force for the BLET.

MR. WALKER: Fran Walker, W-A-L-K-E-R. I'm an FRA Track Safety Inspector.

MR. SCHULTE: Christopher Schulte, last name is S-C-H-U-L-T-E, Federal Railroad Administration, supervisory safety specialist.

MR. STEARN: Good morning. Steve Stearn, S-T-E-A-R-N, party spokesman for the Brotherhood of Maintenance of Way Employees.

MS. IMPASTATO: Theresa Impastato, I-M-P-A-S-T-A-T-O, Amtrak Deputy Chief Safety Officer.

INVESTIGATOR FRIGO: Ryan Frigo, F-R-I-G-O. Investigator in Charge, NTSB.

INVESTIGATOR HIPSKIND: And, Mr. Pielli, if you would put yourself on the record.

MR. PIELLI: John Pielli, P, as in Peter, I-E-L-L-I, Amtrak Engineering.

INVESTIGATOR HIPSKIND: Okay and, Mr. Pielli, do you mind if we proceed on a first name basis?

MR. PIELLI: Yes, proceed.

INVESTIGATOR HIPSKIND: Okay, John, do we

have your permission to record our discussion, our interview with you today?

MR. PIELLI: Yes.

INVESTIGATOR HIPSKIND: And do you wish to have a representative with you at this interview?

MR. PIELLI: Yes.

MR. LANDMAN: And my name is Mark Landman, L-A-N-D-M-A-N, here on behalf of Mr. Pielli.

INVESTIGATOR HIPSKIND: Okay, John, and if you're ready can you kind of just give us a synopsis of your work experience and take us up to your present job title and let us know how long you have been in that position please?

MR. PIELLI: Kind of going back to the left. I have been working along the northeast corridor since September 1975, when the northeast corridor was known as the Penn Central Railroad. I was hired in as a trackman back in the day.

There was main line and back roads. I was hired in on the back roads in South Jersey. Soon enough was promoted to a machine operator on the main line around New Brunswick, New Jersey.

I worked in all levels of engineering back in the day we were called track from trackman to machine operator to equipment operator to welder,

welder EA, welder butae (phonetic), foreman, A foreman, general foreman, management, general foreman, assistant supervisor, supervisor, engineer of track, production engineer, senior manager of heavy construction be it out of face undercutter, interlock and placements, TLM.

Very highly involved three bursts of time in New York City with the reconstruction in periods of time with the special track work in the terminal. Promoted to, the titles are a little different, used to be called a senior engineer of the division. Now they have deputy division engineers.

So our titles do change. But to be responsible for up to about 400 people on the division both track and structures. Moved back into the production side of it. Worked on the production side on corridor, off corridor, off corridor local.

For example, Lennox City from New Jersey Transit. Inner city out in California, I worked out there. Was promised I would be out there for two weeks and I was out there for three and a half months. Worked in the off corridor I worked in Chicago, New Orleans, Jacksonville, Florida.

I was promoted out of New York to senior director of track maintenance for Amtrak which provided me with the different responsibilities. Some of the

responsibilities were for system type work, UT testing of rail system wide, contract services system wide, development of our capital plan.

In track we have 13 attributes, track, ties, rail, turnouts. There's 13, basically categories that we draw and we develop our capital program. Got, part of that responsibility was to interact with all the divisions nationwide.

Helped and coached them with their capital program. Make tough decisions where money was tight that we spent the money in the right place. Got a chance to see America. Probably would have never known that it's dusty and dirty when you go to the other side of Colorado.

Back on the corridor got asked to help out as a superintendent of production I would say in 2008. We had a little changeover going on. People were reaching out for some help with some folks that had experience with heavy type of stuff. I was one of the few that were here as Amtrak needed to burst up with the, some of the recovery efforts we had to introduce for our rock and tie problem and things like that.

Always involved I say for over 16 years with being the lead in the, our master construction schedule northeast corridor wide. I'm the guy that actually

sits with transportation and conducts the arguments or the business decisions on, when we recommend.

Although at times we're narrow by nature what our impact is going to be to the operation and the operations on all of the divisions have a systematic way of how they move and maintain the fleet and do the maintenance on the fleet with different departments just to touch base, you know, and more railroaders.

As the fleets migrate there's meets where trains pass each other. There's different circumstances where it's a two track main, three track main, four track main, incomplete interlocking center, lockage design for one particular move, universal interlock is to be optioned out for any type of a situation that would be in a stress where normally the fleet, during the day fleet is, you know, you're just running straight.

And some interlockings where actually in modern times we put high speed crossovers in to actually exhaust the train quicker off the track and get them out there. So spent some time recently amongst other things, John usually wears two or three hats.

I spent a lot of time in New York in the last four years with the very complex planning, amongst

other things with the projects we're doing in New York, east side access, East River Tunnel, zero defect program in New York, our successful over three years of work and they just met their final milestone as to Moynihan construction in Penn Station.

Brookfield is a developer working there also at the same time. So you kind of put all this in a handbasket. And I was asked to go up there and be the point to make the tough decisions and be fair to everybody.

So we acknowledged that with the operation going on in New York and the Acela trains going through New York to New England since we electrified New England to be somebody that can work with transportation, understood the ins and out of how the divisions worked, be able to sit with the external customers which we have 13 commuter agencies.

Understand their needs and wants and sometimes define in a tough situation things that we need to be successful to get the job done that will actually impact train operations and the way people normally do things. So I have the strong feeling a lot of people have the confidence in me is that when we go in on these big jobs I'm looking at the delivering point being two or three years down the road.

I'm looking at construction schedules. I'm recommending changes. I'm telling developers or even our people, sometimes we have to flatten the schedule. Maybe we're overachieving on paper instead of actually being able to achieve what we can safely.

But generally, been in every aspect of engineering in the maintenance side, in the construction side, on the USA side of maintenance and I've worked as a contractor for Amtrak, on Amtrak in California when we were stressed out somewhat. I've been at, I've been involved with the NTSB with certain horrible, catastrophic situations.

We used to have a committee here that used to be like a go team like the NTSB. I know I've been with Dick in Flora, Mississippi and other places. I kind of got a general idea how it works.

Recently Amtrak leadership came to me and were interested in if I was, what I was going to do. And I'm not ashamed of it. I'm 61 plus. What do you want to do? I said what I want to do is try to get something from in here out to the field at least to leave a little bit more of me here before whenever I decide to retire.

MR. LANDMAN: And just for the record, indicate that Mr. Pielli was pointing to his head.

MR. PIELLI: A little bit about me, 49 years old I had thyroid cancer. I'm lucky I'm alive. So, you know, I look at my grandkids, things like that as positive.

But I also look at the people we have here as, I wouldn't say all of them, but most of them I've had some mechanics of promoting and helping them be mentored and coached so they can be effective. One of the goals that was set in front of me with heavy construction was to try to get the momentum to do more with less impact to operations or truly, John, if you tell us this is what we have to do we recognize that.

But we might tell you to move it down the slide left or right so we can understand the impacts. And this is not about safety. This is about how we would work. So to answer some of your questions some of the goals that were thrown in front of us is in engineering what would we have to do being involved with the deputy chiefs, I was acting deputy chief for a while when Mr. Cunningham passed away.

What do we have to do with modern technology to be able to sustain a reliable operation at 186 mile an hour? And there was some discussion that I was involved with, with Georgia High Speed Rail. It goes back to the left about what we did for testing for

Acela, the situation with strain gauges with two Acelas passing each other in the dead of night up in Davisville at 150 mile an hour.

You're smiling so you understand what I'm saying. What it's going to do to the effect of the windows, all that kind of stuff. So globally, round circle we're modifying our speed deck with different block stationing, with different type of signals, with rules that apply to that, with bridge work that needs to be scoped for higher under balance bridges, for more reliable bridges with ballast deck bridge approach signs so it's more stable.

Track, how we interact with thermal adjustment of rail, welding processes and protocols, how we would normally build the mechanics of a crew to get the work done efficiently without stressing the crew, least impact to the environment down to how we expect to our contractors to manufacture a concrete tie to a wood tie, to a different type of tie.

If we were changing ties how we would modify the TLM safely to be, to put them in as a factory instead of on a single spot situation. One of the goals was, and you work with science it makes me crazy a little bit.

But, you know, you'll sit down and people

will recognize to a high level, for example, and I'll speak Perryville to Washington along the northeast corridor ride quality is diminishing. What is engineering going to do to improve this?

Okay, well to me it's not just throwing money at it. It's doing the science to understand with ground penetrating radar what's underneath in the ballasts. What are the situations that you can't see? Once you get an understanding what that bubble is or what that problem is, the scab it's then how you want to address it.

And you have to use the tools that Amtrak provides you. But that doesn't necessarily mean they're the only tools. Sometimes you have to reach out. For our concrete tie program when you run the math, when we did the numbers you do an analysis on the population.

The population was telling us that we could predict with a certain level of reliability that we were going to get to a decision point in about three years out if we didn't accelerate. So we brought on a second TLM.

We hired a, and trained an entire TLS. I like colors so I called it the TLS Green Team. We had the TLS that was here on the corridor since '78. We

built and developed and productively used contract services and our own folks working at all the elements.

We were able to change over 200,000 concrete tiles a year on the corridor in a very tough state or working environment. But particularly, between Perryville and Washington where the railroad is at times on the peninsula or the, I would say the dirt in Maryland was very poor.

I'm from New Jersey. But what you have down there is you have, you still have a continuance of a mixed operation. You have freight trains, unit trains, coal trains, oil trains. Oil trains in America are big.

They introduce a lot of stress dynamics to the railroad. So you start to notice in certain areas that what you do normally, maintenance is temporary and then the temporary gets to be more frequent and then the owners at times have to introduce some heavy work that kind of recovers that life cycle and fixes the railroad in layers.

Layers of subgrade ties and rail. Layers of signal cases, signal bridges, block spacing, bridges, bridge decks, bridge approaches, the whole system so to speak. I'm not, I don't consider myself to be an expert on signal or structures.

I've managed and introduced heavy work in structures, signal and track. ET has always been with where I'm at being at overhead catenary or in New York which is unusual you have the DC operation with the overhead catenary.

But down on the Mid-Atlantic just the noise is telling us because we have autonomous geometry on our trains. We have our geometry cars. We have a set frequency that we report out the statistics to the FRA monthly on certified ones, although we do conduct other runs that help us a little bit.

We've been using a spot geometry car, a piece of equipment called the T-save (phonetic) since we purchased it from Conrail I think in 2005 or something like that. And that particularly does a more detailed inspection.

It has the ability to test all the parameters and FRA classes of track at a very slow speed where our track geometry car gets a little foggy when it's less than 15. So we're looking at both sides of the parameters and we're also conducting walking inspections.

But along the Mid-Atlantic and Chesapeake we have a lot of mud conditions. Now John doesn't know if in fact when he built the railroad down there it was,

it is what it is or people took shortcuts.

But it's much different than in particular places in New Jersey. I'm around a long time. I've done a lot of work with the forces that I've been responsible for in all assets of track, special track, work bridges.

But what we were lacking and it was my recommendation was out of face undercutting, not spot undercutting, out of face, point to point. First challenge that came up to us was in 2005 we had reached a certain threshold, I don't remember exactly what it was but it was a milestone where we improved ride quality and the consistency of holding maximum authorized speed to a certain level.

So with that said, we were able to make decisions to spend our money in other places. So at that time in the capital program and our heavy construction program we temporarily ceased out of face undercutting. Time goes by. In my opinion, we made the best decisions with the money we had.

We had to resume it. When we resumed it we had, actually in modern times we had the ability of ground penetrating radar which we didn't have ten or 15 years ago.

And I want to say state of the art but on

the northeast corridor it's the first place we've ever taken ground penetrating radar and tied it together like a zipper because you actually make a pass down, if this was a track you make a pass down the track and there was, the radar only has a certain encroachment where it measures.

Well we work with scientists and our own people when I was in system track and we were able to tie in, to knit in track to track to track. So if we have three tracks, four tracks and we traverse three tracks we can actually see if there's a pounding situation amongst combination tracks.

And what we found along the, in Maryland was we were right. It was there. But we couldn't actually tell before unless we opened it up and when you open it up there's some problems.

So that helped us determine the scope of work, the scope of work being whether or not we're undercutting with a standard cut of say 16 to 18 inches, whether we're undercutting to drop the profile on a track lower than an adjacent track so we can get the water to run to a ditch. It gave us more fields that we could look at, make it a little more complicated to get the job done.

We figured all that out, scope of work,

scope of work for out of face undercutting. On the Chesapeake the goal was to have the reliability reinstated to a certain level before 2019 as it's predicted that Amtrak's going to have a new Acela fleet and potentially if the other disciplines can move forward block stationing, bridge work, a whole big package.

I was one of the authors that wrote together the job box or to request the RFP for our own sake for ride quality. It went to Washington. I believe it was a $65 million package that when it all shook out and I don't know everything, but it came back to me as we didn't get the money.

So we were asked what can you do with modifying the capital program without a deep affect on maximum authorized speed because that's what happens. There's a sacrifice when you have money is some of the track might have to go to a slower class of track.

So what we did, we looked at undercutting tactically and we went back to the left again and we said how do we undercut on an inside track and be productive. Some of the challenges we had was the undercutters we had before Amtrak we used to use Mantis which is now a ramp (phonetic).

They had an undercutter that had no shaker

box. It used to just undercut the track and cast everything away. And Penn Central used that along the corridor for grade lowering for tri-levels for automobiles.

Amtrak bought four undercutters, I believe in the 70s. One is actually sunk in the Chesapeake because it never got here. The boat sunk. But we had three undercutters functioning in how I would say was the TLS from the 70s.

The TLS for the 70s was TLM P8-11 and undercutters. It's not as you would know in modern days as a TLS and an undercutter group. But to restart undercutting on the south end we had to use the existing resources that Amtrak has which is an RM-95 undercutter which was purchased with the funding that Amtrak was granted for the New England nearer project which was a lot of track lowering under bridges, several bridges and things like that.

One of the challenges is that machine can't work in territory that's less than 12 foot 5 track centers. Just the simple design of that RM-95 just doesn't fit. So now we're faced with we're using the resources we have.

We don't have the funding to go, or time to go out and purchase another undercutter and we

principally here don't look to get a contractor to do the work. We look at what does it take first for us to do the work ourselves.

So we started with initially the TLS is out working. So the TLS is out there full blown plowing track, recovering rock and ties. We tweaked that a little bit so the TLS would start with them interlocking.

So some of the challenges, you know, when we're in interlocking when can you work when it's off peak. How tight the track centers are, what the layout and design is because all of what we work has design for both vertical, horizontal and where we meet existing or where we're tight and narrow by nature so we know in advance if it's an undercutter process it's 12 foot 5.

If it's a P8-11 process it's 12 foot. So we already know if we're going to take a TLS operation in this territory what our survey team and our layout team is going to go looking for is the pinch points profile, things like that.

Well to start an undercutter with a level of reliability was a very difficult task as we had not run an undercutter operation and a TLS operation on the corridor since 1985. So what we were faced with in

2005 is we did, under my watch we did an analysis of all the curves from Boston to Washington.

And we had a curve modification program with the intent to actually go to nine inch underbalance if we can get the FRA authority for that. And that's a couple words is a little bit crazy. It's a particular applicability.

I'll never forget that. But I remember the day we got it, the next day the FRA revoked it for whatever reason. But most of our track was considered with seven inch underbalance unless there was a particular increment via bridge work the deputy chief would only permit a five inch underbalance on a bridge or a situation.

But at the end of the day in 2005, we were able to accrue 11 minutes of over the road time with improvements. Concurrent with that, transportation provided us with an edict is that they only wanted one hit between Washington and Boston.

One hit would be a 24/7 outage on an express track with heavy work that was of a continuous nature that they would have to run around. Some of the background or some of the reasoning in that was that they had to conduct TPCs, training performance calculations, understand where the trains meet, where

they would move our fleets and other fleets either before the hour or after the hour so trains weren't standing in tight areas where tracks converge waiting for others to go by.

And until they got kind of used to doing that, we had to kind of conduct our work a TLS or whatever you want to call it in occupancy and for any other continuous outages we were kind of asked to work on the weekend. So as the time table improved I think it was from two hours and 49 minutes to two hours and 29 minutes where we had the confidence at the time when ride quality was on the high end we were out there.

We would cover rock and ties and reconstructing interlockers on the weekends. Undercutting, big challenges, put a big undercutter out there it constitutes some 80 to 90 people. We didn't have any operators.

Most of the people we had retired. Other people moved to other positions, were promoted, you know, attrition. I sat down with our labor relations people and I worked out with some contracts to bring in some retired people to mentor the young folks so they could learn how to operate the undercutter safely so we don't have any injuries, serious injuries.

And with a certain level of effectiveness

and recognizing that should a person make a mistake that an undercutter can get hit with an adjacent track by a train as a TLM because you have a big whopper out there. So how we introduced the undercutter program was initially in a three year, in increments.

The first year we trained the operators of the undercutter and we tucked the undercutter in behind a clipping gang or the fastening gang behind a TLM and we used the ability and the knowledge of the foremen on TLS, supervision that was there, the equipment capacity, I mean as far as like equipment engineers and repairmen.

And we kind of grew the flowers or grew the fruit of an undercutter core. Pretty successful. We learned with the rates of advancement with the undercutter it was kind of like TLM was the rabbit. The undercutter was the turtle.

We understood what the ballast return was from the undercutter. We had brought scientists out there to actually take buckets of undercut material to try to understand the findings, what was being returned. We worked through that a couple cycles.

We changed the screens in the undercutter and we changed the scope of work in the undercutter based upon the knowledge bubble that we had where in

some cases, and it was kind of forbidden years ago where you'll find today in certain areas by design the undercutter has no return. Everything that's there in the ballast section is so far gone we're totally wasting everything, just gone.

And people are like, my God. Well it's done by science. It's part of the job. It's in the increments of advancement of the work. The challenges we had is along between I would say Perryville and Washington the northbound express track is in the center. It's not on the west side of the way the railroad is situated.

So in the center it's like my God, here we go again because in the 70s and 80s when the undercutter was in the center we would push, I don't know, our undercutter has the capacity of pushing between 14 to 16 cars on a reasonable grade. We pushed 38 side dump cars.

And with side dump cars we would have to power them, electric, you know, power for the conveyors. And the problem was as soon as you filled the cars you were done for the day because there wasn't a work train that would be able to come out and interrupt the fleet to shift the loaded cars off and bring you an empty train.

So when Amtrak went and bought the RM-95 we bought these creatures called SMF 40s which are great. They have a side conveyor. Just they don't hold as much material. The challenge there is with a standard cut of 14 to 16 inches if there's no return every 100 feet you're filling a car.

So if you move forward with ten cars your days work is 1,000 feet. It's really productive but not what your goal is. And then you're stuck until you can shift out at night. When you shift out at night you have to have the block clear ahead of you depending upon what the constraints are.

And part of our ride quality package was to use the opportunity in the track limits and the period of performance that we're going to be out there that was in the plan to thermally adjusted the welded rail that was probably getting used its useful life of being comfortable with the neutral temperature, change the pads and insulators and clips, eliminate all joints, introduce a hollowing welder which is a higher level of liability versus a butae, not that butae is a bad weld.

And replace the I-joints, replace the impedance bonds because some of the impedance bonds were beyond their useful life, conduct curve mods, grade changes, whatever that is. Take that track while

we have it, it's so valuable to us and do everything we can do to that section of track to put it back on cycle.

I visited the Union Pacific and I was out in North Platte and they had a conveyor car that I was very interested in looking at. And it was what we went with. We purchased, we had a contractor build us a conveyor car.

And our conveyor car, and I don't know exactly I believe the boom is about 35 to 40 feet in length and it was manufactured or fabricated to buck up, to buckle up to our MSF-40s. So we went and had a conveyor built.

Concurrently we bought another Brandt truck. I was a little shocked. We went from $750,000 for a truck to $1.3 million for a truck and we rigged up the undercutter group to now add people for MSF-40s, for a Brandt truck, for a conveyor.

We put that again this past season in behind the TLS. The TLS we looked tactically at our program. Our program this year initially priority one was to conduct heavy improvements to the oil train route which we're familiar with from Perryville to Davis as it last winter the operating speed went from 110 to 15.

We put the undercutter in behind the

clipping gang again. We had the guys, as somebody used to say in basketball for practice, okay, we had them in there. We had them practicing with the Brandt truck, with the MSF-40s, with the conveyor car getting them ready, getting them into practice.

Concurrently we built and developed two more additional surfacing gangs to, that eventually would turnout and rotate independently with the undercutter to have a full undercutter operation. We hired some 200 people because we understood that as soon as we impact the undercutter everybody else is short.

So we looked at the grand plan of people resources, what we needed, the training levels, the schooling, the mentoring, the coaching, management staff, supervisory staff, vehicles, heavy vehicles, even down to because we're big how many hotels we can obtain with rooms in the territory where you're not in there in like northeast Maryland and they want you to leave on Friday because they have events and they want to just put our people on the street.

So it's all those levels, it's procurement. Telling procurement I need 200,000 ties and they're like well Amtrak don't have the money for that. You know, they're changing how they do business. So there's a lot of meetings, a lot of justifications.

There's a lot of getting support from above and in many cases you're changing how people normally do business.

More work engines, more work train crews. You pinch transportation they have an extra list. The extra list is based on their normal work. As soon as you say John Pielli wants five train crews they're like my God, does he think about what it's going to impact their normal business.

So all those layers. We learned. We learned with the undercutter how to work, what the expectations are. The people, we introduced the design from Bacon to Davis. Bacon is about Mile Post 51. Davis is around 40.

As a test, we didn't tell the people but we introduced a different field of work. Field of work first started with out of face surfacing, out of face undercutting, excuse me, which is standard cut, cut in keep the bar just below the ties.

Constraints are the understood control. They didn't have, can't or excessive super elevation in the dog house or the undercutter so they could control working in that clearance envelope.

We also got to introduce them to learning how to read the data. That's the layout along the adjacent rail for vertical and horizontal and how to

get out ahead and build their daily plan so they would be able to recognize if they were tight that they needed the adjacent track protection.

That worked out fine. We did it in a series of increments. The next increment was we set up a situation where it was tight and we did a curve mod. So we added in layers.

So now they're working in the tight environment. They're recognizing they have to work off peak because they need an adjacent track. They need to be aware of what their affect is to the ballast shoulder and the fouling envelope of the adjacent track and what their goal is and what to do if something changes because that's what we're here for to deal with change.

The same curve, Curve 341 we introduced a 28 inch cut which is a lot. So we introduced to our people to learn how much they can cut in one pass and how much that they'll have to make a field decision on a second cut is necessary.

A second cut is a lot of cost, a lot of cost in effect and time, all right. They learn that. They did well. There was, I don't want to say earth shattering but it was very much an awakening when they seen the changes we were introducing.

So they understood their job box, their tool box. What they also learned is that when we lower track that deep the railroad has a certain surface level that was there before mankind changed the earth where we go down and we go down deep into the clay.

Normally the railroad is built with the sins of whatever was here, layers of clay, sand, hard pack. Hard pack is coal centers that the railroad in the northeast corridor was before the 20s. There was no ballast, it was coal centers.

So the coal centers are under our track that's packed. We call it hard packed and in the 20s they started ballasting and using granite along the corridor. They started in the 1900s in New York.

When they blew up New York to build the tunnels they started scattering granite out in New Jersey and it worked out pretty good. Actually if you go on the west coast it doesn't look like granite. It looks like little lava rocks but it's a little different.

But what we introduced is that the undercutter started to get the momentum, started to get an understanding of the, their job box, understood when they went deep what they had to do and that's controlling the chutes, controlling the MSF-40s. We've

had, we had situations where the undercutter gang made mistakes.

They made mistakes as far as not controlling some of the flow of the spoils through the machine, clogged the shaker box. Well that's, my God, it's like machine comes to a stop. It kind of idles down and then it's okay, let's lock out, tag out and everybody gets in their with shovels and digs it out.

It's not a good situation. So with the undercutter we looked at what can we do to change it so we wouldn't have to go in and dig this box because we're asking our people to work with a certain reach. And we put some electronic devices on the belt pressure.

So if the belt pressure gets to a certain point it kind of slows the flow down so you're not introducing so much waste into the box that you're clogging. So we worked with that.

We also learned with returning track in super elevated, returning the railroad behind the undercutter in curves of up to six inches the particular parameters they had to look at to be aware of because they were changing things. When we went deep into the clay it was a test.

We did Curve 341 and, because we see down in

the science between Carroll and Grove which is Ottington that we're going to have to do some heavy undercutting in there in the near future and we're not at that point yet. So we're trying to graduate the education, the performance of the gang.

So we had them cut through Bacon Hill curve at about 28 inch cut and we got the phone call we're cutting clay. Well we knew it, okay. So we went out there. We worked with the guys and we got to understand the dynamic stress on the machine, shaking clay, cutting through clay and we got through the curve and we brought the design back up to a standard skim cut, as I would say, and we understood what that factor was.

And that factor was, how many cars of spoils came out? How much clay came out? How would we restore the road bed to a reliable base bottom? And we already knew what we were going to do and we went in there and filled the track up to the top of the rail with sand, mason sand.

And people are like what the hell are you doing? So the undercutter gang got to see the full picture and actually it's a design repair that's known in the industry as sand is a good base layer for track. So how did we do it? Did we remove 2,800 feet of

track, no.

We filled the track to the top of the rail with sand and we brought a CAT tamper with no vibrators on and lifted the track up about a foot and just dropped the track back down in the sand. So we got about six to eight inches of sand under the track. We brought the scientists out there and let them put their gauges in there.

We actually have instrumentation out there now as we also have in another location at Okepon (phonetic) Road which is an FRA test spot and we're seeing that the performance of the sand and the work that we're introducing a benefit now of 50 percent, which is good. So we're trying to get a patch.

The FRA is asking us to try to use the northeast corridor as a test with the traffic we have and the speeds. So we're moving forward. Concurrent with that package, new people, new training, introducing veteran people I hired as contractors to come in and help the people learn how to surface, track surface.

There's high speed surfacing which we were doing and we're still doing well. And there's the new construction surface and that we kind of got out of the business of doing because we hadn't out of face

undercut for years.

So now you're back into multiple passes. How do you introduce the work with modern machines? We're limited by Amtrak. We just can't go out and by 3x CAT for $15 million. We don't have that money.

So we understand, we have to understand what capacity we're looking for to keep up with the turtle as we're moving along to get the job done to deliver it in a particular time that we've set with transportation to make that time table modification. So we go out there and go to work and we decided, Amtrak decided to take ten miles of track approximately and throw it six inches to the east under the wire.

So we would widen the clearance envelope for the future. We wouldn't have any tight areas and we would prepare the oil train route in increments because you can't fix world hunger overnight for the potential of America having wider tanker cars which they're in the process now through AREMA and everything else to come up with wider tankers.

That constituted planning in their for ET to be able to shift the wire, adjust the wire as it's thermally adjusted. But at the end of the day the surfacing gangs, both of them were learning.

We had, we built a team in there to look at

the process as our process for track buckling countermeasures was introduced in say '85 when we had a situation here south of Philly on how we work using track stabilizers which we didn't have in '85. We used to use ballast compactors.

And at the time when, in the 80s when we were working our time table was five hours. So there was not a real concern if we gave track back for ten miles at 30 miles an hour. So we developed all these quick release processes that improved, based upon science.

There really wasn't a final package for restoration of undercutting for, in high speed territory. So we used all the elements that we had to make sure we were safe and safe plus. But what we also introduced concurrently with the undercutter this season was the first pass we wouldn't stabilize.

When I was out on the BNSF I noticed that in their initial pass in some cases depending upon what machine you're using they're just tamping about every third tie just to get to the undercut track which is undercut by a contractor using an RM-80. Just setting it on a pillow of clean or shaken ballast.

And when I talked to the people out there I said well I think I know what you're doing but let me

hear it from you. And what they explained was as a tamper inserts his picks, the little square things that are on the end of the tools, they're normally four to six inches in physical height.

And they're usually about a half an inch below the bottom tie. And what they were finding is that if they weren't paying attention when they were conducting their initial pass at surfacing that smooth road bed undercut with an inclined plane or a pitch by the undercutter would be attacked with the tamper. They would just chew it apart.

So they changed their spec for their first pass to basically put it up on a pillow of stone. So the second pass those picks weren't invasively hitting like this table top and they started in increments to stabilize them from there.

Some of the things we were looking at is how much can we make a change and be comfortable with giving track back with slow release if we undercut more than a standard cut, 28 inches, whatever that is. So what we did is we put some gauges in there and we watched it and we inspected it.

And there was probably a period of three months, two and a half, three months where between Bacon and Davis the track was left for 60 not put back

for 110 because we were finishing up on all our homework. Some of the challenges we had with the surfacing gangs beyond the undercutter again was learning curve, learning the machines.

Our advertising or promoting I don't really seem to think we had any issue with that. The people were eager. They wanted to learn the job and do the job. They just had to be trained on how to read the data from the adjacent track as we leave a base line and to understand how to interpret the data to what the track is left from with the undercutter.

Challenges we had or mistakes we had. Two surfacing gangs were working behind the undercutter. When they were advancing it came to a particular time in the plan to bring the TLS, the seasoned CAT tamper in behind the operation.

Visited the job, talking to the supervisors and managers try to see how we're going, how is the throttle, how we're doing. Conversation with the people, the seasoned people on our MDZ, I'll call it.

John, what the hell is your new surfacing guy doing? I got in here and threw the track a foot the other way. Now I'm talking to a guy that's run tampers and he's our best. He's been running these things from day one.

I'm like what are you talking about? Didn't you follow the data? Yes, I followed the data. Well within, and they call it within zero, zero profile, within a quarter inch. So now I'm like we threw the track six inches.

The undercutter surfacing gangs went through there and put the thing and smoothed it. CAT tamper comes in, throws the track a foot the other way. So now I've got curves that the neutral temperature is not set anymore and I've got to figure out what our group, what the hell is going on.

And what happened was our design team had the layout there. And they were actually pinched by what their output needed to be. Amtrak expanded in Michigan, expanded in Albany. So they got down to where their lead surveyor was calling the TLS and asking the TLS surfacing gang where they were so they could just get enough data out in front of them for a weeks work.

Then the miscommunication was they didn't realize that we introduced two other surfacing gangs that were in advance. So the two surfacing gangs in advance, they were smoothing and keeping it close to zero because we threw the track six inches ahead of the TLM.

And the design was done by an outside consultant that was reviewed that called for us to throw it the other way. So we had to stop. We had to have some meetings once we understood what's going on.

And at the time nothing was unsafe. We hadn't encroached on any envelopes. We had a little hiccup with time and it's how do we make up some time to get back on schedule. But what we did and since June 10th our undercutter group is working between New Carrollton and Bowie, Maryland and they're fully, 100 percent turnkey successful.

They're using the conveyor car daily. They absolutely have a good process of loading their MSF-40s. What they do is they pull five cars or four cars off with the Brandt truck. They get foul time on the adjacent track.

We know from, we work with transportation when the best opportunities for foul shots are. And what we do is we discharge five cars from, four or five cars of loaded spoils with foul over the adjacent track to a pile, a predetermined pile where we high rail in the advance and development of the work package of where we're going to stage spoils.

So we either leave them on Amtrak's property and test them or test them to determine levels of

things that maybe aren't, weren't too comfortable and then we dispose. The train goes back against the undercutter.

As soon as it goes back against the undercutter of course they'll stop and there's the process of protocol. They do that so they work it safely.

And then the cars that are being loaded while the other cars are out being unloaded, they can quickly discharge them again into the front cars and keep that undercutter going to where we've had very successful increments day after day of undercutting where now we're predicting with a certain type of undercut we could have a goal of 1,500 feet a day which is excellent along the northeast corridor.

Of course we have to stop every time a train goes by. To go back to the left a little bit one of the big commitments from transportation is a diversion around an undercutter, Perryville to Washington, a diversion around a TLS in Philadelphia region, a diversion around Jersey Heights the rail in New Jersey and a diversion around scheduled heavy construction in New England.

That's where I get involved with all the transportation superintendents and at times the deputy

general managers are there. Network time table, CNOC and we try to level out the work for four hits between Washington and Boston based upon the longitudinal location, what the areas are so they can predict, they network time table predict a schedule that they can run the fleet and trains continue to move efficiently in whatever that is.

What affects it? One affect this year Metro North put on 20 miles of speed restrictions. So the trains coming from New England are late. Their calculations, network time table, TPC are not proved until we actually do the work, until we're actually out there.

And then the big thing is are we doing what we say? Are we impacting only what we say? Are we or not? Can we meet the schedule to come back on time? As we're moving along with these big creatures a time table change can be done with a bulletin order.

It's not preferred. They normally try to do it in increments so they're letting everyone know the changes are going to be introduced three weeks in advance. Three weeks in advance is kind of like the bubble that everybody, that I could tell you is comfortable with.

Three weeks in advance lets the stations

know, let the ticket people know, let the mechanical people know, let the whole railroad know there's a change going. Now the challenges are if we run into additional scope or something unknown we're still committed to giving that railroad back at that particular time.

So it's watching the throttle sometimes every day. Sometimes when you're in deep you need to know how deep you are and what's going on so you can make a decision to call up transportation and say at next meeting we have was the end of the month and we normally meet every month, every division.

We've got to meet sooner. We've got a problem. And what happens everybody is like what happened? What didn't they do right? What's going on? But I'll tell you it's worked out well.

We've met all our major commitments. One change we had this year we did verse (phonetic) testing on the Chesapeake where we're undercutting and we found some neutral temperature that was not unsafe but it was something we weren't comfortable with. So we changed the scope where we out of face adjusted rail for six miles and hardware, six continuous miles.

And it was a track that was plowed initially in 1980. We changed the schedule a little bit and

there is some margin with that gunpowder magnolia and wood which they're going to start on the 15th the undercutter to do the same.

Rail hardware adjustment, the whole nine yards. We're finding that now that we're doing it we're doing it efficiently and safe. We're able to do it in the environment with trains passing us by at, you know, 135 miles an hour.

We had some issues with just the security, not security like if somebody broke in here. But the security of what do we do with all the tie pads? How do we secure the tie pads so that they're not kicking up in the air with trains going by? How did we realize that?

We realized in the areas where the track centers are tight. We have some areas that are less than 12 feet. And in that particular area where we're in a cut just putting new pads on the ties as we're getting ready to lay rail on top we can only do it so much in advance because there's tie pads you'll find the next day that are off the ties. They start to migrate.

So we made some changes with that. The undercutter operation, as I talked to the, we had a little meeting this morning, it's a lot of money. It's

approximately a $30 million operation. We're involved with environmental.

We don't always know what the cookbook is. But we listen to what they tell us kind of like when, I know when I go to the doctor he tells me take this medicine I take it. I don't like tear up the script and like what the hell I'm not going to listen to you.

But we're finding ourselves more predictable now for 2017 and 2018 and 2019. And we're looking at these different parameters, these different ways to attack to accomplish the same work but in different scenarios.

Our design teams are moving ahead of us now. They brought on some, I want to say consultants, some additional design teams to help them go through the math, go through the science in advance of us. There was a lot of stress.

You know, Amtrak doesn't have a lot of money. I always say, you know, I work for a company that's broke. So every increment of change that we needed was interesting. Interesting in that to get a tanker truck for the undercutter justification, why?

We have one tanker truck for the TLS. He's in Philly. Can he go from Philadelphia to New Carrollton every day, yes. But the guy has got hours

of service on the truck. We've got one truck. How much are we going to tax the person.

So trucks, grapple trucks, pick up trucks, hotels, employees, PPE to go to the storehouses and let them know there's this new gang out there. They're going to be drawing on more resources, procurement. Procurement (inaudible) on the hot line as we started ordering ballasts by truck, why?

Well our concept was to send a unit train which could be 55 cars or more to a contracted quarry in Reading, Pennsylvania, which is Dyer for a unit train of stone. So we look at the calculations. We look at what it takes to run that cycle of stone to keep up with the work.

And we find that we're following all our math but yet when the train leaves the private road decides to send it to, from Philadelphia to Reading they don't send it out the back door. They send it as a unit train to Conway.

So it goes from Philadelphia to Pittsburgh to Allentown to Reading. So even though we calculated the path of this train and talked to Dyer Quarry and tried to get an understanding how many trains are going to be there so we would get reasonable service, we find out where's our train?

And we find out our train is somewhere else. It's a unit train so they're required to keep it intact. But then we find out they don't have enough locomotives and they're making choices as a business. So we're stuck.

We've got TLM, undercutter, Jersey High Speed Rail. Jersey High Speed Rail for the preponderance of 2017 is the total reconstruction of Midway Interlocking. Midway Interlocking along the New York division is being, we're introducing extreme change to the interlocking with the information that we have based upon our high speed train sets testing up in New England with strain gauges and instrument and wheel sets.

We found where we're not comfortable with high speed track in an environment that has 12 foot track centers. We find some of the track work as it's manufactured needed to be changed. While they were in the process we changed the way, we're in like level four now of advanced technology turnouts.

We found out in stock rows and switch points at a speed above a certain amount we were eliminating what some people call a universal or graduated riser. There's no more pummeling. We also are able to with wider track centers push the frogs further apart so

that one, at that moment the train wheels aren't on two frogs.

Okay. The sense of the length of a car. So now where we're at in New York, in the New York division high speed rail is where trying to set a standard, a package where Amtrak could take 20 miles of track and keep doing it. And actually that's what was done in the 20s here.

They took sections of track and they improved it. But what we found is we had a constraint, catenary system. So now you're stuck between the width of the poles unless you want to totally replace the caissons and the poles.

So normally and they do shrink and widen. But along that particular line we were comfortable with 13 foot track centers. So 13 foot track centers in a situation where you've got a four track maintenance 12 foot you've got some major changes you're going to introduce.

So some of the changes up there were using one of the tracks as a baseline. So we use three as a base line which actually was used in '64 when President Johnson did a high speed rail test. And we made a decision to go with 13 foot track centers.

So we order turnouts that have longer

distance between the points of frogs. We put in all the increments and upgrade our turnouts for more durable with the idea that we have to function at 200 mile an hour which gives us a fail, a wiggle room to 186.

And we all take a trip over to England and Belgium and everybody and Germany to see what they've got which we find out their trains are different so whatever they have out there we can look at it but it's different than us. It doesn't really apply.

So we start introducing work in Midway. We start introducing work in Midway with considering block stationing for 23 miles has to be changed. So right now we've conducted signal cut overs, improvements in that area where I think they had 13 block stations now there's 43.

So you have 43 block stations. Your express tracks have longer distance for more preview, when the engineer is reading signals more distance braking. The outside tracks we had to consider our commuters. They don't want signals too far apart. They'd rather have them as close as they can get so they can pack as many trains in as they want.

So we ended up with a chassis where the outside tracks and the inside tracks no longer had a

signal bridge across all four tracks at the same spot. So we had to introduce a whole lot of insulated joint locations, signal locations, in the millions and then cut it over new system to old.

When the signal goes out there they get track out of service. They work safe. They disconnect the track circuits that are say old. They open up the new system. They have to proof and validate all the increments of that system at that spot.

Depending upon the speed and the design they have to preview, they have to look into the adjacent blocks sometimes two or three signals deep to understand the whole process. And then being in out of service overnight or continuous outage then they have to disconnect everything, put it back on the old and put it back on service.

As they conduct this change in testing and validation and proofing through that whole territory and then it comes to the big day. It's kind of like a wedding day is when you're going to cut it over. Then you cut it over and it's for planning and safety.

You realize 23 miles with 43 huts might take 200 signal people to do the job. So your approach with like when we cut over interlocking in New York we had meetings for two years and we brought signal

maintainers all the way from Baltimore to New York, like 150 people there to do it.

So we were faced with that situation to work safe. Do we introduce that many maintainers and leaders in levels of management or do we tell transportation we're going to try to get the job done with its least effect to you, however, you're going to have to work with us a little bit?

And they're like, okay, well what does that mean? And we told them with all the other work we've got going on trying to give you an example with the work safe we're going to run, it's going to be 562 with absolute block and we only have so many maintainers and crew that we're going to dedicate to this.

So here's what we're going to do. We're going to set up the first core of signal from point to point over like a five mile stretch. I'm going to tell you to run the train, absolute block. And as soon as you run an absolute block we're able to validate that system.

You can continue to run absolute block but there's probably about a three hour period we're going to take all the signal, put them in a truck and drive them to the next six miles. And we're going to validate the next six miles and then we're going to do

the next six miles.

And I can't tell you how stressful that was to convince people to work with us for that for safety. And it worked to a point now where, actually now it's routine. Everybody is used to it.

But what it did, it helped us work safe, get the job done, validate everything and it allowed us to still do the other projects demanding from everything else. We do have times where we have some talented, qualified specialist people that have a lot of experience they'll bid to different gangs just as how we do work.

We look at the level of effort, the assault that's necessary and at times we bring in more seasoned people because we understand that we need that level. One example is some of our interlocking work. You know, if we're in an interlocking and we're taking two tracks out and there's only three you know we're stalling a lot of trains on each side of us while we're working.

We don't necessarily desire to just use anybody that's awarded the job. So but we have them there to be mentored by somebody that's seasoned so we can, when we say we're going to do something we can do it within the time frame within reason that we're

predicting and the people get to learn.

It's worked out well. Right now along the corridor is, since June 10th it's the first time, and I'm proud of it, since 1985 that Acela trains leave Washington ten minutes before the hour. I don't know if he's realized that.

And that's to accommodate the commitments we have in engineering at that high level with an undercutter, turnkey, safe and productive, a TLS, an SES, a Jersey High Speed Rail and in New York we're still replacing like last weekend track in East River Tunnel. So all that's going on.

We bump up our work in every one of our big jobs, jobs that are normally beyond an overnight. Our people, our leaders, I'm involved with some of it. I'm involved with all of it in advance and I intermittently touch base with all of them as I have new managers.

When I took over this responsibility and titles change, this, I was a superintendent with this before. I moved on and they brought me back. Now the title is director of engineering, heavy construction. It's the same job. It's the same thing.

But we're reliable doing heavy work. Touching base with a lot of new managers. Like I said, when I took this over in December I have a staff

organization of 38 managers. I had 18 vacancies. We had a situation where people were just being promoted and moving to other areas so it was kind of like throttle back.

Let people recognize it's going to take a while to throttle up and go in increments and teach the people as I'm explaining. Some of the issues we found is there weren't enough trainers. Amtrak had a consent decree years ago and part of the agreement was 50 percent of the training and qualifications of operators would be on BMWE.

And it's not just BMWE. I'll go to the left. It's, Amtrak provides a name to the BMWE for consideration to be promoted to an equipment trainer. So it's a joint thing. It's actually worked well.

But what we found is we needed more trainers. So we added trainers for the P8-11 which is our TLS just for the P8-11 not all the TLS critters. We also, I had a complaint that we didn't have enough depth in training for our continuous action tampers with the processors, with the complexity of the control of the computer.

And just simply to run a 4S tamper that has the capacity of I would say 2,000 feet an hour or do any type of switch and put a young man in there that's

not qualified and expect him to work anywhere safe is a problem. So we worked the process. We had meetings with safety.

Andy is my boss, the engineering labor relations group. And we took, I actually reached out to somebody that I know here and asked him if he would be interested in the training. And he said well I would really, like you I appreciate being able to teach people but I don't want to go anywhere else.

Don't send me to New England. Don't send me to do this. You want me to teach people I'll teach here. I said so what are you telling me, you want to be a training farm here? And he said, yes.

So we actually set that up and that's in place now and that's some of our sophisticated, our 09 32 CAT tampers which take a lot to run efficiently and safe. We've got a full-time trainer there and those are some of the improvements we're making with training of the people.

We've got a mentoring program that I started when I was senior director of track in 2007. And I would explain that as to be kind of like a dentist. When you go to the dentist they have your file. They take your x-rays they put it in there. So I developed it when I wrote the program to have the new recruits,

the newly promoted foremen separated in two categories.

One would be Class 5 or lower or Class 7, 7 or 8. So we would try to introduce the people that were particular to track inspection requirements, high level requirements and have the ability to teach somebody that would only be working in the production crew that would have to be aware of what all the specs are and this that because we're dealing with people and as part of their curriculum training teach them the process laying rail, laying ties, things like that.

Kind of got to start somewhere. You can't throw the whole bowl at everybody all at once. The mentor as we defined the title would be mentor or from promoted and interviewed supervisors, veteran people that knew their job that had the experience.

And you kind of can't measure that. It's kind of, you can't put a rule around it. You've got to have a sense of what the person's background. It's kind of like interviewing when you're promoting somebody.

So we established a mentor north which was New York to Boston and a mentor south which was New York to Washington. And they took a file up on all the newly graduating foremen that came out of our foremen training class.

Foreman training classes teaches in depth the federal regs, our specifications and protocol, how to recite or work through the book to research across level, you know, where to go to look, what table you go to reference, how do you make a decision based upon fact and numbers not just opinion. And it worked out well.

We set it up. It was a non disciplinary thing right off the bat is, you know, we're going to teach you. We're going to need some feedback from you. So we'd set up, if it was a track inspector the mentor would walk with him on a periodic cycle to understand the fundamental things that foreman knew coming out of school that he can graduate in to be the professional if he was a track inspector and would be aware of what his territory was, what his classes of track was, decisions he had to make to encourage him as it was a construction foreman.

That worked out pretty well. I think we went through over 100 foremen and they like it. The BMWE liked it. We've absolutely seen the improvement in being able to throttle up more quickly and safely and with some support I was able to get a management position added to staff and we added a mentor for the ARASA (phonetic) supervisors.

And we added a mentor for our welders. So that kind of worked out well for safety for how we work. Program wise, every deputy chief has defined attributes. They normally have a list. I'm a track guy. Track has got 13.

One attribute would be like turnouts. The other would be concrete ties, direct fixation. So there's 13 in track. Every deputy has attributes. We reset that in 2002 and that was one of the base of how we developed the capital program.

The capital programs develop with how many attributes you have and then the population of those attributes through system area. For example, Amtrak system wide has approximately 1,700 turnouts. It has so many thousands of miles of track, track of such a class of speed, so many tracks and curves, so many interlockings with switches, so many interlockings with concrete switches are called advanced technology turnouts.

How many road crossings we have? How many movable bridges we have? That becomes a whole population of chassis that would make you want to jump out the window. But at the end of the day every one of the attributes is rated and they rate for the useful life of the attribute.

So for example, a wood tie on the northeast corridor is 30 years. A wood tie in San Francisco we'll tell you, John was out in San Francisco and I was changing ties in '95. They had a date tag in 1906 and they looked good, okay.

So it depends on the area you're at. Rail also has a useful life with the alloys that's constructed when they make their soup or they make their rail. There's a reasonable life expectancy of that. And rail at times gets tonnaged out where you start to get more defects or service failures in the rail which challenges you to change it to reduce the unreliability.

So when you're dealing with rail, ties, turnouts you come up with the population. You understand how in the past to the left you've replaced at a particular cycle and you introduce a capital program that's, and it's for safety, but what you're doing is you're maintaining the operating speed, the MAS based upon your time table.

So for example, you might want to change turnouts in high speed territory more or less dependent upon the traffic that runs over that territory. Also the type of turnouts. We have turnouts in modern times where along the corridor we have spring frogs, RBM rail

bound manganese frogs, tens, 20s, 15s.

Since 1990 we had 26 and a half. Our design is 32 7s. And we'll be introducing here soon some spring frogs of a size 19 down in Magnolia that are similar to what the UP uses out on their 30 MGT lines.

And some of that is the cost savings as a movable point frog is very expensive for signal to put in the extra racks and the extra cases and the extra testing and machines. And in some cases some of our switches are fleeted for the preponderance of their time and the UP with heavy tonnage has proven that the design is durable and can hold up.

So as we're looking at new things we want to make sure it's right. We normally introduce it as a test. We put it in an area that we can watch it, we can measure it, we can make sure it's safe, teach our people how to inspect it because some of this stuff is new jewelry kind of like with a new car.

I'm a car guy. You know, when I was a kid it was girls, cars and drugs and I never did drugs. But cars I liked. I've got to tell you that. You've got something that's fancy I want to know about it.

So it's also an education for safety for our people. When we're installing these new technology turnouts we have to bring the vendor in. It's either

Nortrak or Balfour Beatty. There's only a couple vendors. And we sometimes have to recheck or go over what needs to be done to maintain it on things that they don't even know that they need to do anything.

So I've been talking for a while here. I don't know if anybody has any questions.

INVESTIGATOR HIPSKIND: Do you need a break at all?

MR. PIELLI: I could use a break.

INVESTIGATOR HIPSKIND: All right. Let's go off the record and we'll have a break, okay.

MR. PIELLI: Okay.

(Whereupon, the above-entitled matter went off the record briefly.)

INVESTIGATOR HIPSKIND: Okay. We're back from our break. John, that was a long and detailed answer and I, what I want to do is have a conversation and unpack a lot of what you've laid out for us.

And the first thing I want to acknowledge is your career, 40 plus years of increasing responsibility and scope and the width and breadth, it sounds to me like you've traveled the entire nation. Fair to say?

MR. PIELLI: Yes.

INVESTIGATOR HIPSKIND: Okay. The other thing I just want to kind of get on the record. When

you used, you used quite a few acronyms and I want to add some definition to that. So TLM, track laying machine?

MR. PIELLI: Yes.

INVESTIGATOR HIPSKIND: And define TLS.

MR. PIELLI: Track laying system.

INVESTIGATOR HIPSKIND: Track laying system.

MR. PIELLI: Yes.

INVESTIGATOR HIPSKIND: Okay. And a lot of what, as I recall, that you were kind of giving us a lot of experience and a lot of lessons learned on how to rehab and to lay a great foundation for high speed operations.

And one of my takeaways was some track you just have to start over. And I think that's why you went very detailed on all the undercutting lessons learned. Is that fair to say?

MR. PIELLI: Yes, at times it makes best business sense to have a certain level of reliability to maintain a particular operating speed to conduct work in a manner of total track replacement.

INVESTIGATOR HIPSKIND: And the other thing that was one of my big takeaways from your answer and discussion was that it is, the reason that you covered so many years, so many different types of soil and so

many different types of location is that the accumulative lessons learned is your guiding, some of your guiding principles for how you're going to go into the future and even to higher speeds.

MR. PIELLI: That's correct.

INVESTIGATOR HIPSKIND: Okay. All right. But now I kind of want to turn the focus of our conversation and let me state one of the other impressions I got was just the enormity of the coordination that you have to make not only with localities but within the railroad, different departments on the railroad, suppliers whether they're hotels, moving stone from the quarry.

Just all the stuff that has to come in kind of in an orchestration to keep this thing moving on these big undercutting surfacing rehab of a certain section of the railroad. So in addition to that, what I want to talk about now is I want to talk about all these men and equipment and all that and I want to talk about the safety plan and how their on track presence is ensured and some of the lengths that you go and some of the things that occur on the ground if you please want to address that.

MR. PIELLI: Customarily every site-specific work plan is custom to the territory and the

constraints and the situation that you physically have out there. It could be railroad right of way. Any class of track with no overhead catenary, with no DC third rail, with a single track. It could be double track, triple track.

It could be two tracks of one grade and another track at another grade. Could be multiple tracks on an elevated right of way. It could be in a combination of convex or concave curves. So you kind of got to look through the keyhole and get an understanding what the lay of the land is and then you get to modify, you have to modify the means and methods of people and machines.

Machines speed things up, normally get things done quicker than mankind. You have to be aware of all the cycles, production cycles to capacity of each one of the machines whether it's huge or small. It's still a machine that's controlled by mankind.

Be aware of where the people are in advance so there's no surprises. That's all part of the plan. Where we would have an idea, a good firm idea of how many watchmen you would need although at the last moment it's that foreman that's out there with the plan that provides sufficient watchmen based on what you think.

That last decision is his. But when they, his or hers, but when they lay the lands out and they post the watchmen they conduct a test and they verify it. Everybody is aware that when we take track out of service we're using shunting devices or barricades. We probably have four or five locations where something has come in on our out of service track within several years and we've been fine.

We've got challenged a lot with some of our newer foremen putting the barricade up in an interlocking which I still encourage the foremen to do because it protects us. And normally when we work with signal I have them pull the fuses.

We have had situations where our foremen put a barricade up in the wrong location or on the wrong track and we, it's a NORAC violation. But to me it's more of to try to teach them what they could have done better than pound them into the sand that they put a barricade up in front of a live track.

We had a foreman in New York put a barricade up on the wrong track leading to an East River Tunnel. Long Island got a little upset with it. They'll have to deal with it. We learn through that.

Some areas where I don't want to say it's caustic but it's a very high traffic area that we're

working I define it, one location to give you an example is like between Rahway and New York division, Mile Post 22 and 27 all the way through Methuchen, Edison and Methuchen. Well when we worked through there with the P8-11 and the TLS I called it a gauntlet.

We worked through there at night and took the adjacent track out of service as a barrier and we had, I think it was 40 something watchmen. So it depends upon the lay of the land where you're not going to send a gang out with a busload of people and they figure it out when they get there because you're not efficient.

You can't meet the marks. So it's all about, kind of like give you an analogy like major league baseball team. Every team is a little different but they're all in the league.

So, you know, and you might have the TLS work in concept but has to make particular modifications for safety and production in this briefing based upon what the corridor looks like or what the right of way looks like on Harrisburg line in Albany. So it's kind of matching, manning people and the shifts that you're going to introduce.

Sometimes it's making tough decisions to put

people nights off peak to provide a more profound environment for protection. Sometimes they hate it because they're working nights.

Sometimes it's to a point where you're working on weekend nights. And, you know, when they go through it they got to understand the change so it's communication, communication, communication.

And then it's following up I would say is the hardest thing to do on railroad is that when you introduce the change and you're introducing different spacing and mechanical layout that they're following that. And there's periodic times that you have to set up to get feedback to get downloaded, to get a debriefing of what you've introduced to see if you're 100 percent right and maybe it was a little tweak that you've got to make.

And what we normally do with big jobs is like I give you an example which I think is best is our interlocking program every switch and every interlock we're working is different. It's never the same. We might be throwing a number 20 in the advanced technology with different track centers but every interlock it's different.

There's no systematic everything is a cookie cutter. Usually on Wednesday is the full review for

all the division people, the gang and that introduces and discusses the particular changes to that interlocker for that weekend.

We work through the process, normally five shifts through the weekend. We explode from 50 people to with the support forces and trainings and work trains probably about 100. And we close track out on Monday morning about 5:00 a.m. so the fleet can resume.

And then we set up, on the Monday usually leave for recovery because a lot of people work Sunday nights, off peak whatever it is. But Tuesday is our debriefing, lessons learned. And that's the cycle that one, our SES switch exchange that's the cycle they work.

TLS is normally in areas where we know are much different. Much different would be radio, 30 Street this season in the early summer, late spring we plowed ties from South Penn to Philly. And we plowed ties South Penn to Philly while it introduced a single track to Amtrak.

There's only two tracks. We're on one of them. So that's a scenario that changed. So we had to rig up our people to be more profoundly aware of what's going on, on either side, what can happen. Also for protection for if a switch fails we have maintainers

right there. We're not waiting for them to jump in the truck and go and fix it.

But that site-specific for that area is adjusted. Some places we're only working on a single track we need foul time. Well obviously you're not going to get it because there is only one train for the fleet to run both directions on.

So a lot of that work has to be programmed in as off peak at night. So then you run into the challenges of overtime, off tour, working with the rules and we adjust like that.

It depends also on where our interlockings are. As I said earlier, time table used to be five hours, now it's two hours and 29 minutes. And our goal is we're the heavy construction. We don't leave nothing for anyone else. If we leave it we're not doing our job.

So when you approach an interlocking it's normally the distance of your mechanical machines and people, your factory that moves is that most likely like with the TLS there's four big units. There's the head end, the P8-11, the fastening and welding and then there's the ballasting and surfacing.

If you get close to an interlocking you might be five spans away, some 1,000 feet. You can't

advance because there's a stop signal right in front of you and the railroad is depending upon using that interlocking for all the elements that it has.

So what do you have to do? You have to go in off peak. You have the front gang go through, clear up in the morning, next gang. So all those increments are adjusted and molded into that site-specific so everybody understands what they have to do.

On every one of these operations it could be rail, it could ties, it could be a P8-11, it could be an undercutter, all of those things are built into the site-specific with the knowledge and the debriefings and the meetings of all the division personnel because at times the division has to protect an interlocking 24/7 because there's risk.

There's risk that the, we'll have a single point of failure. A switch will fail, nothing moves. So with that said, we have meetings with their leadership and the individual department heads. And at times they bring maintainers or ET guys with them.

But at times you'll get different people that because of seniority they might decide it's a Saturday night and they want the overtime but they need to be aware of what's going on there so they need to

reference in the field to site-specific and we make that available. We include our safety liaisons which haven't been around all my career.

I would say in the last 20 years it's very positive. We include that. We include the safety department. I know when I visit and my lead managers that report to me are structures, track and signal, what we normally do and I struggle with some of the guys, some of the people producing it to a certain cycle as I do.

But I'll go out, I'll give you an example. I was up on the Springfield line three weeks ago and we have a tie gang working up there between Polt (phonetic) and New. And it's a single track and on the Springfield line in the morning the service is canceled.

We've, Amtrak has canceled the service from 7 o'clock to 1 o'clock in the afternoon with the State of Connecticut to spear it and accelerate construction to deliver that double track project. So when I go up there I'm looking for safety, how do we evolve from the train at 7 o'clock and protect to during the day when we know there's no trains running to in the afternoon the trains are going to run again.

So I'll go out and I'll meet and greet, look

at the people. You know, they see me and usually I go with one or two people with me, okay. John's here. What are we going to do?

I'll look at getting the job briefing, maybe walking through the crew or whatever it is answering questions. But then what I'll find is I need to find the time to go a little bit more deep to see what we're doing.

And what I'll do, I'll pull their 3 L-5 (phonetic) book which is their foul time book and I'll pull it and I bring an empty one or blank one with me and I'll hand the foreman a blank one. And I'll tell the foreman make me a copy of the order.

He makes me a copy of his order. I give him his copied order. I take his NORAC book. And I ask him for ten days of job briefings and I take that. I go back to Philly or New York, I have two offices and my staff engineer, Linda Murphy she'll go and she'll take the foul time book and she'll get with CTEC and verify the fouls.

She'll also get a chance to see if in that period of time they've called over the radio to certify the shunts.

INVESTIGATOR HIPSKIND: So really it's --

MR. PIELLI: It's a check and balance.

INVESTIGATOR HIPSKIND: -- check and balance, right. But it's also, it's a monitoring. It's an interest in their safety and it can also serve as an efficiency check.

MR. PIELLI: And then what I do when I'm finished and I don't use it as a disciplinary thing, I'll sit down and pen a letter to that foreman and let him know what we did and send it to his house and he'll get it in the mail. And usually they get a letter from Amtrak it's like what did they do wrong.

And I try to word it as things that we could do better and, you know, I encourage that they did a good job. And we do that across the line. I've always done it. I've done it when I was a foreman.

You know, you get a little bit, you get a letter to your house it kind of shakes you up a little bit. When you open it up and read it, it's almost like I would seem to think hey, if I'm married look what I got. It gives them a little encouragement.

INVESTIGATOR HIPSKIND: To do the right thing?

MR. PIELLI: Yes, absolutely.

INVESTIGATOR HIPSKIND: John, I think at this juncture, with your permission, I want to draw some of the other investigators. I'm sure they have a

lot of questions for you too. So let's continue that dialogue with them. Don.

MR. HILL: I have no questions. John, you got very detailed.

INVESTIGATOR HIPSKIND: Fran.

MR. WALKER: Fran Walker. Site-specific work plan, is that something that's done by every tie gang, rail gang to address the hazards of the job in the area they're working?

MR. PIELLI: With my group the big gangs or the heavy construction gangs, the big tie on the Harrisburg line presently, site-specific. Site-specific based upon each block they're working not just a general annual site-specific.

TLM is working right now between, actually they're giving back the track today between Philly and Baldwin, site-specific by block and track. Undercutter, same. SES by switch installation not just per interlocking. Zero defects is total track replacement in New York, site-specific that goes into the detail of whether or not we're going and ripping out the signal location or not.

New England, heavy work going on in New England. You can't imagine what we're doing up there in Albany, site-specific by location, by task. For

example, in Albany we use the contract machine and we lay down 12.1 miles of railroad in three weeks.

So it was a site-specific for cuts and throws how we would enter with the work trains, where the people would be, how we would protect, where the nearest hospitals are, the division contacts. I'm spreading that across the line, not recently, but that's what I do.

What we don't do with site-specifics right now is in detail is like overnight field welding. We have a site-specific for field welding. So that little bit of an increment because it's an overnight, it's not a full blown site-specific for here.

Although, I said, I talked about before Midway we just put in a new track at Midway, heavy changes. Eighteen inch lateral, 24 inch vertical, put in new switches and we just did 100 welds. We had a site-specific for that because we brought three welding gangs in to blitz it so we didn't have any situations where trucks bumped into each other and things like that.

We have a general program site-specific for the particular surfacing gangs we have. Some are an 09-32. Some are 09-16. Some are Unimat 3S, Dynacat like on the Harrisburg. They won't have a site-

specific in detail for over the road smoothing.

They'll be part of the site-specific if they're in there in tandem with a tie gang or if we bring a high speed surfacing to augment the TLS if the surfacing gang is behind for whatever reason. Timber gangs, general site-specific as they're doing timbers and ties on the interlockings. They come to work that's what they do.

Signal, site-specific by location. State has its own site-specific as there's a different site-specific with different goals and items to deliver at dock for the signal reconstruction. So when we get to an interlocking in New York, dock interlocking, Reagan interlocking, down in Washington signal does have a site-specific for that PM's responsibility at that location.

Structures, wood and low level platforms in Newark, Delaware not a site-specific. To replace a bridge in Albany that's going to take an invasive outage, absolutely site-specific. We don't normally do like bridge decks.

The divisions do that. Our ballast replacement is of the heavy nature undercutting, you know, teeth are hitting the ballast. Not Railfax although we use Railfax to prepare the holes, the cut

in and cut out holes for the TLM, that's part of their program.

Rail, site-specific absolutely. That, all of this includes our contract services for like when we, Amtrak sells rail where is, there is, you know, or where is as is some people say for ties, for rail. For that stuff the contractors are part of it.

Our Holland (phonetic) welder is there with our people working in tandem doing Holland welding. That's part of the site-specific. And some of that at times in a site-specific includes certain either best practices, protocol or spec.

MR. WALKER: All right. Is the, is there a specific form that Amtrak uses for these to document?

MR. PIELLI: I don't know if there's a best practice on how to write a site-specific. I know myself or my senior managers we'll push back and have them redo it and add a feature or tweak it a little bit.

But we're on the clock. We're watching it and we do make changes.

MR. WALKER: All right. So it's not like a form with a check off list?

MR. PIELLI: No, I wouldn't want that. I wouldn't want that because then it seems, in my

opinion, if you have something like that it kind of nulls it up, makes it a little foggy.

You want something that's going to get a little spirit, shows a little bit of the courage and the tenacity that somebody has to put together. And you'll see the pride in some of these site-specifics.

I could share examples with you. And what, Dick, you mentioned at the beginning if there was anybody that wanted to come in that I would recommend I'll say it now bring some of these managers in that are writing these site-specifics.

I think you'll get a good snapshot of what they're going through because they're under pressure. They're under pressure to get the job done if it's a weekend job and get a debriefing and get the adjustment out and they're under pressure to provide that site-specific to transportation as that's also a commitment for the track outage, for the encroachment.

So those site-specifics would also include the opposing signals, the period of performance that we're going to be encroaching if we're going beyond a certain signal because it affects operation. So the site-specifics that we're writing also include an element of the transportation limitations that we agree on.

So you'll have the hospitals, what we work, what our goal is to deliver and when we need adjacent tracks out of service, when we need adjacent tracks as a slow by or at times we'll even limit other work in the area as one would not want to have five or six main activities going on in one dispatcher's territory where it could get a little complicated.

MR. WALKER: So is it the first level manager above say a track supervisor or is it a supervisor that does it?

MR. PIELLI: Victor Moss does the, he's working with Deidre (phonetic). She's new. I hired her about two months ago. He's in charge and responsible for the production maintenance. So high speed surfacing, the welding, the big tie gang, the timber gang, division welding gangs.

Brady Holloway (phonetic) is in charge of TLS, okay. He's got Ray Main and Eddie working for him as supervisors. He builds that site-specific in advance block by block.

There's no more general and it's been for years. I haven't allowed any kind of general forgiveness. So if a site-specific goes out maybe in March and nothing else you've seen for the rest of the year type of thing.

We audit our people all the time. What I teach the people is, I mean we're there to introduce change and I always say the best I can explain that I'm a trackman. We either fix it, restrict it or take it out of service.

So if you're walking with the mayor, the senator, the FRA and you see something you change it. You take action. And then you follow up and if you're with the FRA you respect them and say I made the change because the next time they're going to come and look to see if that change is still in place and see if it's still, you changed the rules, you changed what has to happen and you're consistent.

And we haven't had any problems at all, we have so many people out there we're making changes. There's no doubt about it. And we're learning. We learned this year and hey, I learn too.

The FRA told us you have to have an oscillating light that you can see 360 degrees. I never knew about that, to tell you the truth. You know, and then we looked and the rule said on a heavy machine.

So we were like why did we even put a light on this machine. It's so small. But we learned. So there's things I learned. But my sense when we're out

there we're introducing change it's how we communicate the change so it's received and how we sustain that change so it's part of the job.

MR. WALKER: All right. One last question. So if I went to a TLS gang and I said can I see your site-specific work plan would they have that available for me to see?

MR. PIELLI: The supervisors and Brady will have it on site.

MR. WALKER: They should have it on site?

MR. PIELLI: Yes.

MR. WALKER: Okay. That's all I have.

INVESTIGATOR HIPSKIND: Steve, Chris, did you have anything? No, okay. Steve, if you'll speak up if you have something.

MR. STEARN: Thank you, Dick, and, John, thanks for coming in and speaking with us. So to follow up a little bit on site-specific work plans my question would be the information put together in all these various plans is it somehow, is that data, is that information stored and able to be used or correlated to this next project things that have worked, things that have not worked?

MR. PIELLI: We don't have a, I'm not aware

that we have a system that logs them all in or gives them a number. But and not to get off topic, but at times I'll take because we're hiring some new people and they have railroad experience but they don't have like northeast corridor experience.

Back when I was a kid all the big gangs used to have like a blue book. It was blue and it was site-specific with all the designs. It was all, it was very like this. And it would say TLS 1980, TLS 1981 stuff like that.

I'll sit down with these guys and show them here's an example of one in recent times. Here's an example of one in New York where you're going to go and here's one in New York 20 years ago. Take a look at this. Build your chassis.

Come back in and sit with me then we'll set up a meeting with the people because by that point we understand the scope. We've got a general idea of how long it's going to take to get point to point before factory and then we fine tune it to where the people are involved, environmental is involved, all the constraints are involved and that's when I take the next step and move that like major league baseball to the venue of final planning for our master schedule.

So it's like building all these baseball

teams to have their own plan before I mix them all up and introduce them along the corridor at four hits, depending on cycles.

MR. STEARN: In developing a site-specific plan, are departments such as the operating practices, are they brought into this for their input to, their perspective to --

MR. PIELLI: We follow the rules. We follow what all the elements of the rules of Amtrak in all areas. We might at times reach out and need an interpretation or something we're not clear on where I would explain it.

Somebody makes a deal that we're not aware of. We're only aware of things that we could see on a bulletin order or see when the book changes. But sometimes we have to be aware when a change occurs how it can affect people.

One thing that I will say took a little bit of time for all of us to get used to this year was Amtrak decided to take the schedule out of the time table, out of the special instructions. So I found a lot of our foremen were keeping the package, the time table that was previously, it was, you know, no longer in effect in the back of their book because the new one didn't have any times for trains.

So we made a call and what that drove was people to pay more attention to the bulletin order. Pay more attention to have particular commuter schedules in hand based upon what territory you were working.

It might have been, it is a convenience probably for Amtrak because back in the day they had all the commuter schedules in there and Amtrak schedules. Well now it's one more thing that a young person has to go and find out where to get it.

So what we do, we introduce on a Monday morning before 6 o'clock we send out electronically now to all our shops and our shops could be a hotel. But we all have electronic communication. All the TSRBs, all the bulletin orders and any changes go out on a Monday as the bulletin orders come in effect Monday morning.

So we had to make a little change to keep that communication going or at least, I don't know, when I was a kid under Rule 33, 133 I look in the book and say okay, the train is going to stop here at 1 o'clock. Okay, we're good until 1 o'clock. You can't do that anymore without having at least two pieces of paper in your hand.

So when we notice it we adjust.

MR. STEARN: Some of my questions go back to previous interviews and things they may have said. So my question may seem irrelevant but they're going to help me get a good understanding.

I think one of the questions and I believe I heard you say earlier that you answer up to Andy?

MR. PIELLI: I'm one of Andy's direct reports.

MR. STEARN: And you have, you should have 37 answering up to you?

MR. PIELLI: The production organization, engineering and production as a whole. And we are from Boston to Virginia to Harrisburg to Albany, 38 management positions at different levels.

Some report to higher level managers. But there's 38 people in that organization.

MR. STEARN: Do your, do those managers under you and yourself, do you all maintain your qualifications?

MR. PIELLI: Most do. We always maintain like RWP. I know I'm due soon for MW-1000 and NORAC. All, we don't, although I do not everybody keeps characteristics. I keep it. I kind of like to look at the sheet.

It goes back from 1980. Not everybody does

that. It's not a requirement. But when it is a requirement we do that.

MR. STEARN: You discussed mentoring a little bit. And, you know, we go back a good ways. And I'm wondering if you could just comment briefly on how you believe today's mentoring program is best serving our workforce as opposed to maybe how it served them back when it was initialized?

MR. PIELLI: Well I'm just going to the left. When I was a kid we were faced with a similar situation although I was a lot younger. We weren't Amtrak. We were Penn Central. We were breaking up Penn Central, who knew what was going on.

But the railroad was smart enough to hire retired foremen through a company called Ford, Bacon and Davis to mentor us and I never forgot that. And I really appreciated that guy that was 65 plus in them days to retire.

And, yes, okay, he was like, John, if you don't need I'm over in the tower. But he was always there. He was my confidence. And when I had a spot where I had a spike line or gauge and I didn't know I could reach out to that and listen and learn and take direction.

I respect him as, you know, he wasn't an all

start, couldn't run around in the track but I would learn. And what I started to notice as we were, people were retiring and we had, we still have a heavy transition of people that just the training, the detailed training, the specs, the classroom, the talking about the penalties and fees and stuff it took us a long time.

Not that we couldn't do it. It took us a long time to get somebody to where they were fairly competent to get the job done. What people had done in the past was they promoted a supervisor to watch a foreman learn how to be a foreman.

So when we, when I introduced the mentoring program it worked out well. I had a lot of conflict with people why are we doing this, you know, cost and things like that. But I think I went pretty much through that.

It's pretty successful and it's ongoing today. But my sense is it helps increase the field of awareness. It helps people understand that they can predict the expectations of what they are going to introduce. You know, until you do it you don't know what you're going to get out of it.

Some of the mentoring can say, listen, if you do this, this is what you can expect. I know it's

helped a lot with the track inspection. We had some track inspectors that came right out of school and were, and our situation at the time was we were awarding new foremen to track inspection capacity because they were qualified with not a lot of mentoring.

And it's, it was to me not a good scenario where you took a guy from school and put him right out in the field without having a boss, without having some kind of shadowing, without having some idea of what the parameters were. As we work and we advertise training the people are locked in to being forced assigned to a job.

Most times the jobs were good. Sometimes the jobs were like nobody wants it. So with that, we had the confidence of looking through the keyhole, looking at a job that was maybe not a super favorable job, looking at a student coming out of school and targeting a mentor there to kind of balance things out from the beginning.

MR. STEARN: So then I get the sense, I don't want to put words in your mouth, that you would believe that like a foremen school while it is beneficial without the addition of mentoring it may not produce the quality or the product --

MR. PIELLI: Not in a reasonable time.

MR. STEARN: What would you say is a reasonable time?

MR. PIELLI: Depending upon the territory track inspector fundamental maybe three or four weeks because he's got to traverse his whole territory in different directions. He's got to do the switch inspections.

He's got to know his interlockings and he's got to go through every switch he's got. Sometimes that's a cycle of at least a month.

MR. STEARN: The corporation hire a young man and he would be out there in an entry level position but trying to advance himself and move himself up. And in a short time he would have reached a threshold where he could potentially enter foreman training.

Do you know how long that takes from his date entering service until such time he could be accepted into such training?

MR. PIELLI: The foreman training, as I understand it, is awarded by seniority, seniority and class. It also depends on, if I get this right, how many vacancies are selected to be published per zone.

Like the northeast corridor is segmented in

BMWE subset zones. So if you have a Zone 57 it might be a Philadelphia region the Philadelphia division would have two or three vacancies and they would put in the process of paperwork to have training positions advertised as a result of positions being advertised with no bids received.

Those zones compile a class capacity of the training department for either a once, twice or three times a year. So there's really no graduating class out of an MW-1000 unless there's a need to find vacancies.

So we might have, at times there's a burst to add to staff qualified people. And as I understand it, a class isn't generated by a vacancy. A class, a group, a population of new students is generated by the result of jobs being readvertised and no bids received.

But we don't, no longer have a constraint that I'm aware of that forces people to stay as a foreman. When I was a kid when I finally got to being a foreman and I would say this is to the left of '93, if you were a track foreman in class and you bid out you lost your rights. That's changed.

So now even though we're graduating and promoting and mentoring and growing foremen while we're talking foremen, we don't have the ability at any time

to stop them from bidding other jobs.

MR. STEARN: So there's no real incentive for these people who go through the education or mentoring program to make that position it proves to be financially beneficial?

MR. PIELLI: I would say and don't quote me, don't take me out of context. Around 2007, we --

MR. LANDMAN: You are going to be quoted because this is on the record.

MR. PIELLI: Then I'll say in the 2000s working with regular labor relations and all the elements of Amtrak we introduced a bonus to the foremen because we recognized they were leaving as an incentive for them to stay a foremen for an entire year. If they stay a foreman for an entire year they get a bonus. So that, to try to answer your question.

MR. STEARN: And that was in 2008.

MR. PIELLI: I was close.

MR. STEARN: So you and I both have been around a while. We both started as trackmen and when we started there were tons of trackmen. We were tripping over trackmen and now not so many trackmen as there were.

However, in recent times we have seen as a result of attrition and other factors some would say

significant hiring. Would you have any idea as to the relationship on the property between those who you would use the word seasoned veterans versus those with let's say less than five years of service and experience? Do you know what that balance, ratio might be or have any thoughts on that?

MR. PIELLI: Nothing specific, Steve. Our big tie gang in Harrisburg is 60 percent people that were hired with less than a year's service. Our TLS Blue team maybe 20 were less than a year. New England, Springfield line where we burst we just hired 50 people up there.

It does, I don't have the statistics in front of me. But there's a good mix. Some more than in others. But part of the job at that particular location is hard to focus on certain things when you're dealing with new people.

We had a situation last week on the undercutter. We had 13 people and normally with and you're smiling, we had 13 new people didn't understand the rules. So, you know, it come to my attention and I explained to them, you know, sometimes with new people you don't know how deep you are before you're too deep to get out.

So we did a little set up with the union and

we sat down and we communicated. So now they and actually they apologized and we move on. It's not a matter of discipline. It's so people understand what, how they can work.

MR. STEARN: And thank you for that. But I guess more than the question my concerns are in the level of training that these newer employees, these less seasoned employees are receiving. So my question to you would be do you feel that the training regarding either operating equipment or foreman training, do you think that it is adequate, satisfactory?

Would you give it a grade, in your experience you're seeing the graduates? How are they?

MR. PIELLI: New trackmen or new people are learning from inception. You work with that. You put them with a team mate. Put them in a crew that you recognize you don't have 19 new hires and one seasoned person.

You give them a chance to be able to kind of flatten out. Foremen it depends on the people sometimes, the particular individual. Not everybody is the same. But you've got to be there when they're introduced to the work to be able to understand in general without looking in a cookbook not knowing the guy's rap sheet on how they're going to develop.

You continue that communication. You're talking with that supervisor. You're talking with that veteran. You're making sure they're working together. Like being a track pilot. You normally have them work with a seasoned pilot to go over the road, to right the train over the first time, the second time.

They understand how to put a barricade up, how to put a shunt into place, how to keep the books up, where to keep their tools in their trucks. I always say every gang has its own little culture.

So when you're in Steve Stearn's gang Steve Stearn runs his gang the way he runs his gang. It's a little bit different. You follow the rules. You pay particular attention to the most important rules and some of the stuff you work through.

But you recognize soon enough with a certain level of aptitude and knowledge on how much effort you have to introduce to somebody and feedback and follow up until they become stand alone, until they get the confidence and the courage to be able to be out there in the front doing the job. It takes a while.

MR. STEARN: There's a lot of projects going on down there and a lot, some of them are very complicated engineering wise and logistic wise and operating rule wise.

Would you prefer to take some of these seasoned veterans, some of these more experienced foremen who you've worked with for a long time who you are comfortable in their abilities and would you prefer to assign them to the more complicated areas and hold back your less experienced foremen for some of the more mundane type work? Would that be a general perception on the property?

MR. PIELLI: In general that's a good thought. It's not reality. It's not reality. We don't have the ability to assign seasoned people. When we have somebody that's weak or not fully competent to a certain extent we have to augment them with someone else.

We have to put somebody else there that has seasoned on a temporary basis. We have the ability for 30 days to pretty much assign anybody without creating a position. So sometimes we'll work that out, you know, you go there for a couple days and you're going to work with him to show him how to do this at least your way.

And then there's always the way they can manipulate it to where they're comfortable because there's not only one way. And we'll pay your travel time to go there for a while and mentor them and we do

that.

We also recognize when we're doing something that's totally different that everybody needs an education. Some of the stuff we're doing in New York is totally out of the picture. You know, I was up there Tuesday and I'm there with senior managers down to foremen going over some of the heavy work we have to do in New York because we haven't done it before.

You know, we haven't attacked a situation like that. But if we had a pool, you know, and to me it's little arbitrary, but if we had a pool to be able to select somebody to go somewhere I don't know if you could do that working with people.

How would you measure that? How would you know? And once you know yourself unless you're an expert how can you really pick the best guy to go whether you would or not?

MR. STEARN: Well I don't know. But I'd be interested in hearing your thoughts on how you would be able to turn out the best product at the end of training whether it be --

MR. PIELLI: What we teach the people, Steve, is based upon what you're doing today, this project, this region, this is the envelope. This is the circle of effect that you have to learn.

I will say this, you could be working for Amtrak for 20 years and be a contractor protection foreman and be the best contractor protection foreman that anybody has ever heard of, never heard a peep out of took track and gave it back a million times and it's perfect. And then for whatever reason you move, your family moves and you get in a situation where maybe you have the inertia to want to become a track inspector in New York.

Your life changed. So it's when that change occurs is that the levels of management and the way we work are welcoming you and say listen, this is how we work here. You've got to get it. This is how we do it here because every place is different.

MR. STEARN: So with all these projects in the pipe and the complexities that we have started realizing as opposed to the type of work we did 20, 40 years ago there are going to be new challenges facing getting workers to being able to perform those tasks. Has the corporation been discussing any --

MR. PIELLI: I know I penned a letter in May that went through the leadership that went to the BMWE requesting contract positions in key positions in all the heavy corridor gangs. I haven't heard back from anybody on that yet.

And that would be to introduce required, specialized, very costly training, for example, on how to break down a processor on a tamper, how to be a contract operator on a Kito (phonetic) crane that could lift 125 tons with the CAT.

And I spelled them out for a Kito crane, undercutter, TLM and railroad repairmen. Part of what I penned was also the core contracting out the foremen, the repairman and the key operators as a team to try to answer your question.

So we had a team that we can introduce heavy and very costly training, a higher level. But we would be able to lock them people in for three years on that job where right now no matter what training we introduce with good faith and then details the limitations or the limits of when they're forced to sign the job is very, very, very short.

So even when we take and we step forward to try to train that new student to be an all star it's a very difficult situation. We put up Kito crane training, to give you an example I believe in January. We went back and forth with people bidding the job for training that had no experience in aerial or hoisting.

We got eight employees with no crane experience to bid the training. I hired a consultant

who was Harvey Cooper who was a retired trainer, Kito crane operator who lives in Kansas to come back and augment our training.

And the training has gone on now for 12 weeks and we're down to two people, the six people quit. So that's just one example, maybe not the best of how we're trying to introduce the proper training, the environment, taking the crane off line and putting it in a yard so they can pick up all this type of stuff and work safe.

And we're struggling with being able to maintain that capsule, that level of qualification with the employee to be able to put it to useful work. That's just a little bit from John.

How we can do better, to me and I'm not a corporate officer, is to improve that situation where when we train people might have the option to opt out, you know, you go into say training six weeks and you're in a week and you're like I don't want to do this.

Yes, just go back, go back and do what you're doing. But if you're there and you go through that whole sphere, that whole training you're able to provide that resource to the company that's effective and not bid out to another job.

I have people in our organization that take

eight months to become an undercutter operator, right. And it's not eight months of training. It's eight months of they're doing certain increments or certain locations on the undercutter or TLM. We call them stations.

But then the trainer has to come and visit so they can see them demonstrating their skills. When they demonstrate their skills you have to be actually doing that activity. So if you're not doing that activity for a month you have to wait until that activity arrives like a cutting hole or something like that.

If you're working a small crane you have to have that opportunity set up where you're threading rail. So sometimes when you think it's three weeks of heavy training we don't have a training base or stadium where you can take a crane and do 16 features with it in two weeks and say you've commanded them all.

It's also attached to the environment and the work. Like if you was to take a locomotive you'd have to run it over the road to be familiar with it outside of working in a simulator. We don't have a simulator for track department.

So you have to run that situation in the field in a live environment. You can do it in the

yard. You can do it off track, limit the locations. But when we're doing all this some of the things we could do better is have a binding agreement to have the people that are there stay in the classification.

I've had undercutter operators go through all the training and the first opportunity they get they bid a tamper and they take six months on a tamper. Well we just lost the undercutter operators.

And I have people that are foremen and they go through the foremen training. They go out and get mentored. They do the whole stat, the whole book and then they decide I'm going to be a truck driver and it's difficult. It's difficult.

So things maybe in my opinion, while I'm talking here that we can do better is to come to some kind of binding agreement or some kind of lock in. And I'm sure somebody will be asking for a little bit money per hour to try to work something out like that.

But that is something that I would say openly that we can do better.

MR. STEARN: Your thoughts on assistant foreman positions, yes, no, maybe so?

MR. PIELLI: I don't know. The railroad I started with when I was a kid off third base and there was corn growing in the tracks your assistant foreman

ran the gang. The foreman usually had three assistant foremen and they weren't there every day.

But a supervisor was the management job and there was no assistants. There was no supervisors. Back in the day the assistant foremen were put up as a step to become a foremen then it became an issue with are we paying the assistant foreman the same rate of a machine operator?

So what we did in the production gang is we got rid of all the assistants and we put additional foremen. So instead of having an A foreman and three assistants, right, we'd have four foremen. I don't see that, after the classification change was released is any benefit.

Before you used to have to stay trackmen assistant the foreman, foreman. You aren't in that classification you lost your rights. Trackmen, machine operator, EWE, you want to be a foreman you lost your rights.

TLS, undercutter, interlocking SES five cents more an hour. You stayed in those organizations, five cents more an hour, separate rosters. You get a ballast around November or whatever that was. The call back was TLS as a priority.

You didn't go back to TLS you lost your

roster. All that's gone in the 90s. So everybody in BMWE, other than some contract operators of tampers can go up and down, left and right, whatever they want and it's a difficult situation.

MR. STEARN: And thank you. No more questions from me.

INVESTIGATOR HIPSKIND: Theresa, anything?

MS. IMPASTATO: I have one question. John, could you describe the process that you use after a job has been completed for evaluating the safety and success of the job?

MR. PIELLI: Well in general we look at all the debriefings, all the cycles. A job, a project might take 90 days or it might take a week. Depending upon the duration or the period of performance what we had to deliver on impacts we had some unknowns, some knowns.

I talked about it before, impact could be not enough ballast as we had calculated. Something else impacted us. Material not being delivered. Amtrak, I always say and I said it today is a broke company. We're a small company, believe it or not.

When we go to buy turnouts we're up against the UP that might put an order in at NORTRAK which is in Birmingham for 800 turnouts. We want six. So

sometimes our list of things, our bill of good is put down on the bottom of the list.

Also Amtrak at times has to make high level decisions with purchasing material. Amtrak buys material the process in engineering is we report when we put it into the ground. So that's when it gets charged to a particular project.

But Mother Amtrak pays for it from the day one. So when you're the CFO and you have hundreds of millions of dollars in inventory a decision at times might be you don't have a line item going to the board for advanced long leave material. So material sometimes effects us.

And based upon our financial cycle which is October 1st when it is approved you might find out that the factory is already sold out for the next eight months because you're looking for a commodity. So those could be things.

Things that we could find in the interim or be impacted with is one or the other hits that I talk about somewhere. There's temporary speed restrictions posted as seasonally the northeast corridor has heavy rains, unstable road bed, slow orders, mud spots.

So sometimes that impacts your work based upon you need to foul an adjacent track or trains are

not hitting on time. Also what happens Amtrak has a responsibility to run third party freight.

So there's particular times in America where for the last couple years America starts running a whole lot of oil trains from North Dakota to Delaware. So in those areas it changes the plan.

Sometimes changes to the plan could be a project put up 25 positions and you lost 25 of your people so you have to make an adjustment. You have to make a safety adjustment. You have to make a productivity adjustment. You have to make an outage adjustment.

Sometimes you might have a situation where people do something wrong and there's four or five people out of service and it impacts you. We're not having the right level of people there to get the job done and you have to adjust.

MS. IMPASTATO: Do you hold meetings --

MR. PIELLI: Yes.

MS. IMPASTATO: -- with your managers to talk about that?

MR. PIELLI: Yes, we have not, I'm not one for staff meetings. I usually have them quarterly. I'm one for me and my and the leaders that are directly reporting to me we're up at 4:30 in the morning.

We're on the clock seven days a week. We're working all the time. That's what we do. If we weren't like that we wouldn't be here. It doesn't stop. My cell phone actually today is probably the first time you won't find it on because I left it in my office because I was coming here.

But we're on the line all the time. We're there for all our people. We know who is responsible for each shift. We know what we're supposed to accomplish in each shift and we know when things go wrong or things that are unplanned on how to handle it.

MS. IMPASTATO: Thank you.

INVESTIGATOR HIPSKIND: Ryan, I want you to cover some of the risk management stuff and I'll bounce over to you, okay.

INVESTIGATOR FRIGO: John, thank you again for being with us today. And, you know, I just want to say that, you know, I think in one word I can sum up the past two hours of conversation and that's engaged.

I think it's just very evident how engaged you are in the process that exists, in the, you created most of it. And I just, you know, am very impressed with your grasp of everything going on.

And if we could just go back to large gangs, lots of men, lots of equipment, northeast corridor,

high speeds, you know, what is that hazard analysis process that goes on to say, you know, we're comfortable with having, you know, x, y, and z pieces of equipment with whatever number of men adjacent to high speed passenger train sets?

MR. PIELLI: The best way I could try to explain that is most neighborhoods have a place where there's like a park. And the park, I ride motorcycles, I go around. The park usually has a trail.

And the trail has a little A to B, you're going to see this, B to C you're going to see that. Well as we introduced these rolling mobile factories, that's what we are you're looking through the keyhole and you're seeing what's along that path.

What's along that path, like I said before, you look at it mathematically in physics, horizontal, vertical planes, lateral changes, vertical changes. Now we're by nature in a cut three tracks, four tracks where tracks converge how many wayside sightings you have?

How many freights are going to service local industries? Big decision sometimes is to transload and shutting the place down. New England we had to do it a couple times.

There was the one place that makes those

pneumatic hammers. I forget the name of them. You buy them in Home Depot, the yellow hammers that drive those nails?

MALE PARTICIPANT: Dewalt?

MR. PIELLI: Excuse me.

MALE PARTICIPANT: Dewalt.

MR. PIELLI: No, not Dewalt. The other company.

MALE PARTICIPANT: Stanley.

MR. PIELLI: Excuse me.

MALE PARTICIPANT: Stanley.

MR. PIELLI: No, shit. It's right there in New Haven. It's right there in New Haven. They had a transload because we were plowing their track and there's no way a freight train could get to them.

And they moved to Mexico the week after we got done. But Amtrak had to pay to transload their factory. So it all depends, the best I can explain is the pipeline and then what's outside the pipeline.

I always say if you send surveyors to survey this make sure this is what you want that you didn't need this. So you want to look at where you're working and look at the surrounding areas.

What also helps is to be aware just something simple as looking at the track usage in the

territory to see what else is going on that night. As we're looking at any train, any track, in any direction. But I'll tell you a seasoned guy as a leader, he's going to look out to see what the hell is going on.

When am I going to get foul? How am I going to beat the other guy to get the job done? But you get an idea of what is going on in that fish bowl at night. The person that goes out and just looks for am I getting track and goes to work and doesn't study the track chart, doesn't get a chance to know what else is going on he's going to be impacted or she is going to be impacted by a call perhaps 2 o'clock in the morning can I have permission to enter your out of service track.

So it's all about being aware of what's going on. And that's what we teach our people. It's paramount. I drive it into our people and sometimes I'm criticized for that from up above.

But that's how we can continue to maintain safety, how we stay on the throttle and how we get the job done.

INVESTIGATOR FRIGO: And as speeds increase as that's the ultimate goal, how do you see that philosophy evolving to increase that level of safety

and protection again for those men and equipment?

MR. PIELLI: Well I find we've, I know I've been out there where we've had to make a decision where we've had to rebrief. Stop, and you're making no sense. Nothing dangerous but it's getting you down the path that you don't want to go. We've had to rebrief.

I know I make a decision with our group as we know in advance where we're going in our program to add the staff. I know I added eight trackmen to the undercutter to work Carroll to Bowie on Track 2 instead of Bacon to Davis on Track 1 just simply because the vertical curves for the line of sight.

You've got to anticipate what you think you need in that tool box of people and machines before you get there otherwise when you get there you're not going to get what you want.

INVESTIGATOR FRIGO: And do you, you know, using that example that you just provided, do you think that using site-specific work planning and the hazard analysis tools that go along with that, do you think that helps achieve?

MR. PIELLI: Absolutely, absolutely. We ultimately leave a cushion in there where a foreman who makes that final decision can provide more than adequate safety with RWP. And the supervisors that

work in my group and managers are aware of where the adjacent gangs are working and they interact and I use the word they steal people left and right.

They borrow each other's resources. They borrow each other's people and actually that's what I want. I don't want anybody working where they're short and they're at a disadvantage.

INVESTIGATOR FRIGO: Thanks, John.

INVESTIGATOR HIPSKIND: Dr. Beaton.

INVESTIGATOR BEATON: Good morning, John.

MR. PIELLI: Hi.

INVESTIGATOR BEATON: I'll echo the thanks that you've heard from others here for spending time with us this morning. I just have a few questions and I want to learn from you.

So let me ask you, let me start by trying to get an understanding of where you are within the Amtrak organization. You report to who?

MR. PIELLI: I report directly to Andy Keefe.

INVESTIGATOR BEATON: And Andy reports to whom?

MR. PIELLI: Rodrigo Battara (phonetic).

INVESTIGATOR BEATON: Okay. And what's the next level of reporting?

MR. PIELLI: For who, for Rodrigo?

INVESTIGATOR BEATON: Yes.

MR. PIELLI: Is D.J. Stadtler.

INVESTIGATOR BEATON: And then Stadtler reports to Boardman?

MR. PIELLI: Yes.

INVESTIGATOR BEATON: Okay, and who reports to you?

MR. PIELLI: I have Ralph Smith reports to me. He's a senior, of course our titles change, as the senior manager of track. I have Terry Tiller. He's a senior manager of signal. His responsibility is from Philadelphia to New England.

I have Steve Bagasse (phonetic). He's signal. His responsibility is Philadelphia to Washington. I have Mike Travelino (phonetic). His responsibility is construction lead in New England both on the shore line and the Springfield line.

We have Kristin Lease is a woman. She does an excellent job in our structures group. And I have a vacancy right now in two locations, two units for the secondaries. But the principles are Brady Holloway is our TLS Blue team and J.P. Miller is our undercutting team.

INVESTIGATOR BEATON: Okay. So it sounds

like you've got about eight direct reports or so?

MR. PIELLI: Yes. And I have, Linda Murphy is our staff engineer. Again, our titles change. And I have LaTonya Barber is an analyst that makes you, you know, takes care of the stuff that you want to jump out the window when it comes to finance and stuff like that.

And we have a chief clerk, Jamie Daniels.

INVESTIGATOR BEATON: Okay, good. And under each of those senior managers that you have I assume there's an organization of more direct reports. At some level beneath you there are the people who actually go out and do the work.

How far below you are the, is the backhoe operator?

MR. PIELLI: The conscience of the workforce reports in all aspects to a supervisor. The supervisors report, although some have assistants, assistant supervisors. The supervisors report to like a field manager.

The field manager or manager of operations reports to a senior and the senior reports to me.

INVESTIGATOR BEATON: Okay, good. That's very helpful. As Ryan indicated, you are very engaged and I'm sitting here listening and smiling as you

described various or answered various questions describing processes here at Amtrak.

And I have to kind of tag on to Ryan by saying I think you have a pretty mature sensibility about safety. I see in your words that safety is kind of integrated into the fabric of what you do. Is that a fair statement?

MR. PIELLI: I don't do any work without knowing what the expectation is going to be before I start.

INVESTIGATOR BEATON: From a safety point of view?

MR. PIELLI: But if you wanted to define that as safety, then it's safety.

INVESTIGATOR BEATON: Okay.

MR. PIELLI: That's the way I work.

INVESTIGATOR BEATON: I'm just wondering where, how did you develop that mature sense about safety? Is that something that you learned from Amtrak?

MR. PIELLI: I don't have an answer for that. All I will tell you is when I was a kid somebody asked me if I wanted to work for the railroad and I was on third base and I said I'd give it a shot.

And I don't know, in a horrible situation

I'm pretty proud to be able to help Amtrak. When I was a kid I would say I didn't know much. But I was able to be one of the leads for like when we had a catastrophic situation on 188 to be able to be sent with Dick ten years ago in Flora, Mississippi and have people depend on me.

You know, nobody knows their destiny. I take it serious. I take it serious all the time. Everything, me and my family have is Amtrak. I raised two boys and a daughter. My daughter went to college.

I'm first generation American. My father came over on the boat in '32. I made the best of my situation. That's all I can tell you. Amtrak has sent me to Penn State, sent me to University of Wisconsin, sent me to George Washington University, sent me to the west coast.

I never knew it was dry out there, you know. I had a lot of opportunities. I'm still here. I like it. I could retire. Right now I'm not ready to sit in the garage, you know.

INVESTIGATOR BEATON: I respect everything you say and I also just say congratulations, you're a lucky man. Let's talk a little bit about the accident that we're here to understand.

The gang that was doing the ballast

vacuuming, did they report to you? Are they in your shop?

MR. PIELLI: They didn't report to me and when that occurred I actually was a, you know, everybody's got a rap sheet. My rap sheet is to try to survive in my life and keep my teeth.

And I had a surgery and a long story I have teeth that they're rescind and they have to open up your gums and add bone. And I was off line for a couple of days.

INVESTIGATOR BEATON: Okay. So this gang in this accident is in a, reports up through a different organization than yours?

MR. PIELLI: Division engineers organization.

INVESTIGATOR BEATON: Okay. From your vantage point and I appreciate the fact that you're involved more with the heavy construction, when you're working, when you have a gang out in the field in a territory where there's some parallel tracks, three or four parallel tracks and one of them is open for traffic, I think Ryan sort of breeched this topic with you, what sort of expectations do you have for, from a safety point of view for trains moving through that hole on the open track when you've got a gang maybe

with equipment on other tracks.

They've taken the track, their tracks out of service. But there's one open track. What sort of expectations would you have from the operations people as they move trains through that area?

MR. PIELLI: I don't understand your question. I mean we have a daily business sheet that lays out the programmed outages during the overnights. Unless something is broke within the infrastructure there's no daily outages at all except for these big, heavy construction outages that my group introduced for infrastructure or total replacement.

There's always concurrent activities going on with foremen fouling and of any craft or occupying a track temporarily or even protection for RWP. And for the preponderance of how we work we do it over the radios so everybody has a good foundation to try to hear what someone else is doing because you can learn by that sometimes.

I know for years now we've been making sure our railway equipment when it comes out of the shop or it's commissioned it's introduced to the field with a radio, working radio. But I don't know exactly how to answer your question.

INVESTIGATOR BEATON: Yes, and I apologize

if I'm being a little vague. I mean maybe it might help if I gave the analogy or an example. If you are out on the highway and you came up to a construction area while you're lane may be open there's equipment in the other lane.

It may be blocked or closed and most areas we slow down and move through it with some degree of greater attention to what's on the wayside and that sort of thing. In the railroad world, in your world, in the Amtrak world when you have equipment that's fouling or you've got tracks that are out of service and you have a hole that you can get through, would and I know it's okay to send a train at speed through that hole.

But is there some expectation or desire from a construction department's point of view for how that train should operate through that hole?

MR. PIELLI: I see it like as if you were going to go on the Jersey Turnpike and you stop at a toll booth they're going to give you a slip saying from Mile Post whatever to Mile Post whatever one lane is closed down. And then you get close and what do you see, some cones or a truck and you divert.

We do the same thing. We know by the track usage that's approved what the business is, what our

bulletin orders are, what are general notices that changes things or makes us aware of unsafe areas.

But when we do a release of track that's all in accordance with the rules I have the confidence that the rules have enough depth with different layers to protect us even perhaps if one situation might not be as preferred as it should. But as far as release of track, from one of the operations I'm responsible for so you understand we're recommissioning all the systems.

It's not a temporary take the track out and give it back. When we go in we obliterate the place. We change the way the world is. The signal system comes down. The power comes out. PTC is dismantled. Track is removed. Road bed is replaced.

And when we go and recommission it all those systems come back in increments, in increments where all the departments are communicating and there's a process and a specification for every one of those commissioning of systems and including the operation of trains and how trains are going to be focused and governed as they enter the newly commissioned track.

It could be absolute block which we have a situation where haven't proved a signal system. So we let one train go in. He reads the signals. Well we

don't put a train in behind him, I'm giving you an example, until we know that train is clear of the block.

And we have to validate all the systems. Same thing with the catenary. The grounds come down. We always work between grounds. Our foremen sign off on the clearance when we take the power out. It could be a DC, could be an AC, could be an AC and DC.

So we all know. That's part of the site-specific. That's part of the communication. That's part of the job briefing. When we put up supplemental shunting devices we verify the shunt. We get permission to go on the live track and certify the shunt and strap itself before we put it on the track.

We look at our foul time books. We audit and look at radio communication. Actually modern times now I can call any assistant STO, superintendent of train operations they send me a blurb on the computer. Now I could listen to my own people talk at any given time.

We've had situations, in the spring I had a ballast regulator derail. It was pushing ballasts. It had actually lifted up off the rails with a new operator. What happened? He derailed. It came back down off the rails.

Not fouling. They call out emergency, emergency, emergency. Some of the new people they know they're supposed to do that but they don't understand the impacts.

What the impact is in a situation like that along the northeast corridor is anybody that hears that radio communication stops. So now with modern technology and good, profound communication with the radios you'll find that trains 15 miles away came to a stop.

So what happens with our new locomotives through our leadership 15 minutes later I get a picture of the site. Why, because all our new trains got a camera on the front.

INVESTIGATOR BEATON: While we're talking about this and excuse me, I need to get my computer back. When you have a gang doing a big job and they're spending some time out there and there's a shift change or one of the foremen is going off duty and another foreman is coming on duty, does that moment in time when there's a shift change, does that present any unusual or heightened risks or hazard for, in your thinking, about from a safety point of view?

MR. PIELLI: Well it's a transition between one shift to another. In my working group it's always

face to face. It's never over the radio. It's a full understanding like we used to have back in the day when the towers were the towers.

Three shifts a day, what's going on with the businesses. What's happening? Slow orders, what's entering in the out of service. Get a copy, it's always face to face. We do it every weekend in New York probably four or five different projects and with a 55 hour outage we normally work five shifts.

So there's five cycles every weekend. When we're working in the interlockings with different disciplines it's five shifts on the weekends. When we're working on TLS undercutter it depends on what shifts we have back to back, we do a face to face.

INVESTIGATOR BEATON: Okay. And do your foremen get any special or particular training on what to communicate and how to communicate during a shift, a watch turnover?

MR. PIELLI: Yes, the key components they know and they're trained. And the NORAC explains how to either annul or cancel orders that are important, that govern the situation and we do that all the time.

INVESTIGATOR BEATON: During that shift change, particularly when you've got a track out of service or you've got foul time, is there any special

training given to your foremen on how they communicate with the dispatcher to coordinate that changeover?

MR. PIELLI: Yes, there's rules that are written that you have to give highlights, particular highlights about condition of the block, whether or not you're going to restore the track to the schedule or the time table speed or less thereof. You might be asked questions when you tell the dispatcher I'll give you the track back at two mile an hour they might ask you I need a definition.

And, why, because on the other side they're actually writing in the book because it's going to affect the operation.

INVESTIGATOR BEATON: In your experience with Amtrak and it's really quite commendable and longstanding, are you aware of any reoccurring problems where foremen and dispatchers have not completed a watch turnover successfully, that there's been some failures?

MR. PIELLI: Not that I'm aware of.

INVESTIGATOR BEATON: None at all?

MR. PIELLI: No, we've had situations that I am aware of where we limit the volume of work, I said it earlier, in a particular location. One area we watch every day is New York because in New York I

always say when they put the catenary in over the railroad they put it up wherever it was easy.

And in New York it's kind of like if you turn the switch off in your kitchen the lights go on in your bed room. So the AC plates in New York don't match the tracks. So you could ask for an AC plate on five and it takes the power of six and five.

So that's the way I would explain to you, you have to know where you're at. You have to know what you're signing off on. You have to, and that communication is paramount to understand what your affecting, okay.

INVESTIGATOR BEATON: Okay. John, thanks again for your time you've spent with us and the education that you've provided. I'm done.

INVESTIGATOR HIPSKIND: Thank you, Doctor Beaton. John, we've had a tremendous time with you today. And I'd say your knowledge and your comments are just unbounding and I too am impressed.

I want to try and recap in my own words some of the things that I think I learned today. And steer me back if I've got some of this wrong. But in the things that you do, everything you do is big.

A lot of equipment. A lot of commitment. A lot of capital funding toward those projects. They're

all planned out well in advance. A lot of coordination with every department, vendors, the whole nine yards. All that stuff is just looked at, looked at. It's planned out. It's talked about, meetings and then comes the execution.

You even had meetings before your going to do your work about kind of running through to make sure that everything is still there. Am I correct thus far?

MR. PIELLI: Yes. Some of those meetings are even in the field. It's not in like a, here.

INVESTIGATOR HIPSKIND: Exactly.

MR. PIELLI: We're right on the job. We're close to the job or we do a high rail trip with three suburbans with 27 people and we stop and we get out and we walk a mile and then we get back in, whatever we have to do.

INVESTIGATOR HIPSKIND: And all that's designed is to further improve the plan and the execution to comb out those last maybe unknowns and to mitigate them. Am I correct in that?

MR. PIELLI: That's correct.

INVESTIGATOR HIPSKIND: Okay. So I think one of the things I learned, and these are the highlights of some things that Ryan and I are both interested in is that risk analysis and how it's

managed.

And I would sum it up this way. And it's all about all those things I just said. But it's also about this site-specific work plan, all that coordination and then it, quite frankly, some of the biggest mitigation factors as I understood your discussion was hey, we choose to work at off peak times.

And I mean that's just getting along with transportation. That's getting along with moving passenger trains and all that. But then all that is supplemented in the field with the appropriate number of watchmen, the use of shunts and banners as appropriate. Are those the highlights?

MR. PIELLI: Yes, and what Bob was talking about is, you know, in advance I started to talk about the turnpike, we also put up whistle signs, you know. And normally in the bulletin or we won't because we're doing big things it's usually posted.

People know we're out there. Actually if you talk to some of our engineers they have a good throttle setting on how we're doing, how we're moving along. They get to watch it every day, maybe twice a day on how we're moving along.

INVESTIGATOR HIPSKIND: Okay. I think I've

polled everybody and I think everybody has got their cup empty. So let me move toward the questions I indicated I would ask you. Mark, I haven't forgotten you.

MR. LANDMAN: No. With John he's clarified everything.

INVESTIGATOR HIPSKIND: I'm not surprised that you said that, okay. So, John, one favor I would like to ask you. When you do get your hard copy you and I talked about a couple of the acronyms or abbreviations that we, that you used or referenced in your long discussion.

But could you maybe look for some of the other ones that maybe you and I didn't talk about and add them into your errata sheet?

MR. PIELLI: Yes, you're going to send me something that I can proof?

INVESTIGATOR HIPSKIND: I will.

MR. PIELLI: Absolutely, yes.

INVESTIGATOR HIPSKIND: It would just be helpful because you and I were using language that you and I were comfortable with. But for some of the readers they may not know what each and every one of those abbreviations were?

MR. PIELLI: Sure.

INVESTIGATOR HIPSKIND: Okay. That would be helpful. So is there anything that you would like to add or change?

MR. PIELLI: No, I try to come here with an open mind and kind of confess and answer any question you want. As far as 89 I wasn't there. I can't talk about that. I don't know.

INVESTIGATOR HIPSKIND: And that was not our primary purpose in our discussion with you today. We kind of wanted to stay on the construction side of things and understand how all that works out.

Are there any questions we should have asked but did not? I know we can always ask more questions.

MR. PIELLI: No, I think I sincerely gave you a good perspective on how we prepare, execute, make changes when necessary and conclude our big projects. I think that's what you were looking for.

INVESTIGATOR HIPSKIND: I totally agree and I do appreciate you sharing with us multiple examples each and every time that you gave us a description. That was really, truly helpful.

And so do you have, I know that this question may not apply to you, do you have any suggestions for preventing a reoccurrence? And I kind of think what we're referring to here is the train '89

accident.

MR. PIELLI: I don't know enough about what happened down there. I mean I base my decisions on fact.

INVESTIGATOR HIPSKIND: Okay. And is there anyone else who we should interview?

MR. PIELLI: For big projects?

INVESTIGATOR HIPSKIND: Just in general for the things that we discussed with you today.

MR. PIELLI: I wouldn't have anybody to recommend.

INVESTIGATOR HIPSKIND: Okay. With that, I want to thank you very sincerely for taking the time and coming out here. I, and for leaving your phone in your office, okay. Thank you very much, John.

MR. PIELLI: Thank you.

(Whereupon, the above-entitled matter went off the record.)

C E R T I F I C A T E

MATTER: Accident Involving Amtrak Train
89 and MOW Equipment, April 3, 2016
Accident No. DCA16FR007
Interview of John Pielli

DATE: 08-25-16

I hereby certify that the attached transcription of page 1 to 128 inclusive are to the best of my professional ability a true, accurate, and complete record of the above referenced proceedings as contained on the provided audio recording; further that I am neither counsel for, nor related to, nor employed by any of the parties to this action in which this proceeding has taken place; and further that I am not financially nor otherwise interested in the outcome of the action.

[redacted]