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: THERESA IMPASTATO

Thursday,
September 8, 2016

National Railroad Passenger Corporation,
Amtrak
Headquarters
Philadelphia, Pennsylvania

BEFORE:

RYAN FRIGO, NTSB
BOB BEATON, NTSB
DONALD HILL, BLET
RICHARD HIPSKIND, NTSB
MICHAEL HOEPF, NTSB
STEVE STEARN, BMWE
FRAN WALKER, FRA

ALSO PRESENT:

FOREST HOLDCROFT, NTSB

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

APPEARANCES:

On Behalf of Ms. Impastato:

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ALSO PRESENT:

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

MR. FRIGO: All right, good evening. My name is Ryan Frigo, the Investigator in Charge of NTSB for this accident. We are here today on September 8th at the National Railroad Passenger Corporations, Amtrak's Headquarter in Philadelphia, Pennsylvania to conduct an interview with Theresa Impastato, who works for the National Railroad Passenger Corporation, or Amtrak.

This interview is in conjunction with NTSBs investigation of a collision of Amtrak Train 89, with workers and equipment, on April 3rd, 2016 near Chester, Pennsylvania, on the Northeast Corridor.

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 clearly so we can get an accurate recording. I'll lead off and then pass off to my left.

Again, my name Ryan Frigo. The spelling of my last name is, F-R-I-G-O. I am the Investigator in Charge for NTSB on this accident.

MR. STEARN: My name is Steve Stearn. The spelling of my last name is, S-T-E-A-R-N. I'm with the Brotherhood of Maintenance of Way Employees.

MR. HOEPF: My name is Michael Hoepf, H-O-E-P-F. Psychologist with the NTSB.

MR. HOLDCROFT: Forest Holdcroft, H-O-L-D-C-R-O-F-T. I'm with the NTSB and I will be observing today.

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

MR. HILL: Donald Hill, H-I-L-L. Safety Task Force, BLET.

MR. BEATON: Bob Beaton, B, as in boy, E-A-T-O-N. With NTSB.

MR. HIPSKIND: My name is Dick Hipskind. And you spell my last name, H-I-P-S-K-I-N-D. I work for NTSB and I am the Track and Engineering Group Chairman for this accident.

MS. IMPASTATO: Theresa Impastato. The spelling of my last name, I-M-P-A-S-T-A-T-O. Amtrak's Deputy Chief Safety Officer.

MR. FRIGO: Thank you. Ms. Impastato, do we have your permission to record our discussion with you today?

MS. IMPASTATO: Yes you do.

MR. FRIGO: And do you wish to have a representative with you today?

MS. IMPASTATO: Yes I do.

MR. BONVENTRE: My name is John Bonventre, B-O-N-V-E-N-T-R-E. I'm the attorney for Ms. Impastato. And from the law firm Landman Corsi Ballaine & Ford.

MR. FRIGO: Okay, thank you, John. And, Ms. Impastato, are you okay if we proceed on a first name basis?

MS. IMPASTATO: Yes please.

MR. FRIGO: Theresa, thank you. Thank you for being here today. And just for the record, Theresa is the Amtrak party spokesperson. Theresa has been on scene participating in the NTSBs investigation.

From the time of the accident, Theresa has sat in on the majority of the interviews conducted and is Amtrak's coordinating entity for that accident. For this accident.

So again, Theresa, thank you for your participation. And if we could start out with a synopsis of your work experience and take us up to your current job.

MS. IMPASTATO: Certainly. My first position in the industry was in 2000 in systems engineering. I worked for the River Line during its

design build phases. I performed system integration and system assurance work with the signaling system.

In 2003, after the system was commissioned and was ready to proceed to revenue ready status, I transitioned into an operations role as a dispatcher. I worked as a dispatcher for a period of, roughly one and a half years.

At the one and a year half mark I began a transition into process engineering. For about six months I worked both as a dispatcher and as a process engineer.

I worked full-time as a process engineer for another six months or so and then transitioned into a role in the system safety management department for the River Line project. I was responsible for the drafting and implementation of the system safety program plan, for the River Line, in accordance with the FTA requirements under 49 CFR part 659.

I came to Amtrak in 2011 as the director of system safety for the engineering department. In October of 2012 I was detailed to a special project to oversee the system safety program planning aspects of the New Jersey high speed rail project. It was an approximately $500 million grant, from the FRA, for Amtrak to improve, in New Jersey, our infrastructure in

order to support increased speeds for our Tier II and Tier III train sets.

In 2014 I moved into the systems safety department, which was newly formed, as the deputy chief safety officer. Which is my current position.

MR. FRIGO: Great, thank you. And Theresa, can you give us an idea of what the duties and the responsibilities are of a deputy chief safety officer at Amtrak?

MS. IMPASTATO: I have enterprise-wide responsibility for the design, development and implementation of Amtrak's safety programs. That would be our safety management systems, our system safety program planning and associated programs policies and regulatory initiatives.

MR. FRIGO: Okay. We'll go back to SMS, safety management systems, and SSPPs, system safety program plans, in a second here, but what's a typical day like a deputy chief safety officer?

MS. IMPASTATO: As of lately I've been spending it with you folks quite a bit.

(Laughter)

MS. IMPASTATO: A typical day begins early in the morning with a series of kind of daily information gathering, daily assessment, daily internal

review.

Amtrak has an injury reporting process that issues a daily report. That's all reported injuries. I review that in a daily basis with my staff.

I participate in a number of the operations department calls in which we review safety concerns, questions and issues as well as significant injuries or events, from the prior day's period. Based upon the incidents identified in that call, my day will either be reactive in nature or proactive in nature.

If the incidents of the prior 24 hours are incidents that require a field response, that require investigation, that require analytics, that usually will take up the remainder of my day working with my direct reports and collaborating with the business lines and operating departments, to identify causal factors and address any emergent concerns and make recommendations for remedial action.

In the event that the prior 24 hours were a standard matter of course, and there weren't any outlying events, my activities are geared towards process assessment, critical self-assessment and process improvement.

MR. FRIGO: Okay, thank you, Theresa. You're bringing up a lot of terms that we're going to

come back on shortly. But can you give me a sense of the, in 2011 you joined Amtrak as the director of safety engineering, and in 2014 deputy chief safety officer.

Can you give a little bit of history of system safety and the system safety organization at Amtrak?

MS. IMPASTATO: Certainly. When I joined Amtrak in 2011 safety was decentralized. There was a corporate safety group that was comprised of environmental health and industrial hygiene safety personnel. There were roughly 20 or so folks under that umbrella.

Each of the operating departments had their own independent safety organizations. I was responsible for the day-to-day safety oversight and programmatic elements of the engineering departments safety efforts.

I had a counterpart in mechanical, multiple counterparts in transportation and a counterpart in high speed rail.

From 2011 through 2013, the safety management at Amtrak was individualized and customized to the needs of the specific departments.

In 2013 there was an organizational

realignment. Which resulted in the splintering of the environmental and health groups, away from the safety group. And there was an independent safety group that was established as a standalone department. The system safety department.

Amtrak hired a chief safety officer in the summer of 2013. Through 2013 through the end of 2014's calendar year, the chief safety officer set about consolidating and centralizing all of the safety efforts.

All safety positions were going to be housed under one roof, in order to increase synergy between the departments, in order to employee economies of scale and increase deficiencies. And in order to establish, at the systemic level, a unified approach to safety management at Amtrak.

MR. FRIGO: Okay, great. And then in 2014 you came onboard. Was there, as the deputy chief safety officer. Was there a deputy in Chief before you?

MS. IMPASTATO: No, there was not.

MR. FRIGO: Okay. Can you tell me a little bit about the organization today? How should I understand the office of system safety?

MS. IMPASTATO: The organization today is

still evolving. The organization is the result of inheriting a number of the independent safety groups and working to integrate them.

We're still moving through some iterations of change. Our organizational structure and hierarchy are not fully solidified at this point.

My organization is, I am a direct report to the chief safety officer. The chief safety officers' other direct reports are for administrative and budgeting purposes and for volunteer public community outreach and Operation Lifesaver.

The remainder of the department roles through my organization. I have nine direct reports. My direct reports include the directors of safety. There are four field directors of safety.

There's a director of safety for the mechanical department, a director of safety for the engineering department, a director of safety for the Northeast Corridor business line and a director of safety of the long-distance and state supported business lines.

Fifty percent of those directors were in place before being integrated into the system safety organization. The remaining two directors, their prior occupants were integrated into the system safety

department and they sought to peruse other opportunities. So they're current incumbents are new hires to Amtrak.

In addition to the four field directors of safety, I have a director of industrial hygiene who oversees Amtrak's industrial hygiene efforts.

I have a passenger safety specialist who is dedicated to programmatic assessment of passenger safety improvements, as well as infrastructure and systems that passengers interface with.

I also have a data analytics group that was newly formed in January of 2016. The data analytics group oversees data acquisition analyses and regulatory required reporting under 49 CFR Part 225.

And lastly, I have a safety training group. The safety training group was newly formed in 2015. Their mission is to design, develop and assist in the implementation of safety related training. Both in accordance with regulatory requirements under FRA and OSHA, in addition to the development of conceptual training for safety management concepts.

Lastly, my ninth and final direct report is a director who oversees the promulgation and development of policies, programs and regulatory initiatives. That position is responsible for assuring

that there are consistent uniform safety policies throughout the organization.

One level down from my nine direct reports are the lead safety specialists. Mr. Porto discussed them in detail.

There are equivalent positions for lead safety specialists in each of the other field director's organizations. There are currently 19 lead safety specialists. There are a couple of vacancies. I believe we have 21 approved headcount.

They're geographically dispersed coast-to-coast, across the system in order to complement capacity and density requirements relative to the scope of Amtrak services.

I also have some data analysts and some industrial hygienists that work in my group as well.

MR. FRIGO: Do you have a, off the top of your head, do you what the total head count, the total full-time equivalent is for, dedicated to the Office of System Safety Today?

MS. IMPASTATO: Forty-seven.

MR. FRIGO: Forty-seven. And do you know what that number was at the time of realignment in 2013?

MS. IMPASTATO: Twenty-three.

MR. FRIGO: Twenty-three. So it sounds like there's definitely been significant growth there. Are you familiar with some of the planning that went into the, after the realignment, and what the thoughts were as far as what the optimal number of FTs would be within the Office of System Safety?

MS. IMPASTATO: Yes. When I took the deputy chief safety officer position one of the first things I did was sit with the chief safety officer and do a gap, perform a gap analysis relative to the needs of the system, relative to the capabilities of our status quo staffing levels as well as the skillsets of a number of the incumbents.

We looked at some of the industry standard staffing models. Looked at the UMPTA (phonetic) model, looked at some OSHA recommendations, looked at some other mining, some MSHA recommendations for FTE ratios to full-time employees.

Amtrak has approximately 22,000 employees. So a system safety department of 23 employees, we felt at the time, was not capable of providing the level of programmatic support that the organization would need to accomplish its future goals.

We put together a five-year staffing plan to address what we felt were gaps in both abilities and

capabilities of the department. I.e. training and analytics.

There were no prior positions in the department that were dedicated to that. Passenger safety as well. We're a passenger railroad, we felt that we needed someone dedicated full-time to passenger safety.

We put together, within the five-year plan, Step 1 of the five-year plan was the centralization. That was to occur in 2014. And that was fully executed.

All employees with primary safety responsibilities and safety in their title were all moved under the system safety organization. That resulted in a net increase of about ten to 12 heads, from the original 23.

And then between the beginning of the calendar year 2015, and current, we've added additional positions. As I've stated before, in passenger safety, analytics and in training.

We are still pursuing additional growth. We're still working to increase the skillsets of our employees. We have some opportunities, given our new training unit, to design and develop in-house training to increase the safety skillsets of a number of our

staff.

We've been successful in recruiting certified safety professionals. We have also sought to recruit safety experts, not only from within the rail industry itself, but also from within other industries that have a history of effective safety management practices. Such as aviation and defense.

MR. FRIGO: In that five-year plan, what was the optimal FTE number, with a full build out?

MS. IMPASTATO: We were looking, combining agreement covered positions, which as Mr. Porto discussed would be the safety liaison style positions, and non-agreement positions, managerial style positions, to come up with a final count of roughly 100.

It's still significantly less than the UMPTA model would dictate. The UMPTA model is one full-time safety employee to a 175 other full-time employees. But we felt that that would create an effective use of Amtrak resources and would enable the department to not only respond reactively to the needs of the organization, but to dedicate enough bandwidth to work proactively to build safety improvements.

MR. FRIGO: And you mentioned that Phase 1 was to centralize the safety functions into the system

safety organization. Were there other phases to the five-year plan?

MS. IMPASTATO: There were. Phase 1 was to get everyone co-located. There were, as others have stated in their interviews, over the years at Amtrak there have been a number of different iterations relative to titling and position responsibilities.

There were a lot of folks that had safety in their title that may not have been performing core safety functions. They may have been performing supervisory functions that clearly have a safety impact, but they're not practicing within the system safety discipline.

So after we had everyone with safety in their title co-located, we started looking at the position descriptions of other positions that may not have had safety in their title to determine whether or not it made sense for those positions to either undergo a change of titling or integrate into the system safety department.

The next phase of that, once we had all safety functional, as well as titled folks in one department, was to conduct a gap analysis and skills assessment of our staff.

Safety, by virtue of it being decentralized,

had varying degrees of skillsets available. There were employees that had significant skillsets in operation safety, but did not have skillsets in safety engineering.

We had employees that had little or no experience with regard to behavior based safety. And employees that had a wide range of prior experience with behavior based safety.

One of the things that we started doing with our existing staff was identifying areas for development and opportunities for improvement in skills assessment.

We sent a number of our lead safety specialists, and our managers within the department, to external courses to develop skills and knowledge in areas where we felt there were some opportunities for growth.

We sent our staff to classes on investigatory technics and evidence gathering. We sent our department to classes regarding industrial safety. We sent to the Transportation Safety Institute courses, relative to emergency management and system safety program development.

After, and that's still in progress. We're still evaluating and working to improve skillsets.

We've also developed and delivered an interviewing technics course with our employees.

We found that there were opportunities to improve the interrogatory skillsets of some of our employees as well as some composition and writing skillset courses.

Some of our staff are very competent technical writers and they're not necessarily strong in policy and program development. So we've worked to bring some folks in to assist them in those efforts.

MR. FRIGO: Great, thank you. And I just want to go back to some of those earlier terms that you started to talk about. SMS, safety management systems, and SSPPs, system safety program plans, and then process improvement.

And I'll ask you to answer this question following an SMS framework. And I really want to understand what the current state of system safety is at Amtrak.

And what I mean by that is, what are the polices, what are the programs and then what are the assurance mechanisms and then how is all that promoted to employees?

MS. IMPASTATO: If I were to offer a singular descriptor of Amtrak's safety management

systems, I would utilize the term evolving. Amtrak's polices, some of which have a lengthy institutional history, are currently undergoing an evolution.

We are beginning to move away from the paradigm of a prescriptive approach to safety, for isolated system elements, towards a systems approach to safety. Where we look at the components of the complex system that is our railroad and how they interact with one another.

We're working to incorporate, as one of those elements, the human element. And we're working to take our policies and evolve them from a wrote dictatorial statement of requirements towards a more accessible, more implementable, more easily understandable means and methods for employees to know what expectations are of them.

With regards to our programmatic approach, Amtrak has had a system safety program, since 2006. The program predates my tenor at the corporation. It was developed in accordance with the APTA standards, which are volunteer consensus elements.

The system safety program plan does adopt some alternative practices to the APTA standards. Primarily in the hazard risk management portions of the APTA standard.

We have utilized risk based, both quantitative and qualitative hazard assessment practices, on a limited basis.

We are working towards educating our work force to understand, utilize and adopt a risk based approach towards hazard management. Again, that's evolving.

We have utilized risk based approach in quantitative analysis, with regard to major projects, the high speed rail project, the procurement of the next generation equipment, as well as a procurement of the new ACS 64 electric locomotives, had all undergone a rigorous safety analytical process. That included risk based hazard assessment, failure modes and effects assessment, system integration testing, as well as a full safety certification.

We're utilizing those major projects as the model homes, if you will, of the programs that we will develop and deploy at the system level. By virtue of the prescriptive system requirements 49 CFR Parts 200 through 299, we're assured that our minimum compliance with those requirements will present an acceptable baseline level of safety.

So we don't have a status quo issue, as an organization, as a system, with serious safety concerns

or lapses. We're looking to improve and build and leverage a systems approach to increase the baseline level of safety to reduce our global risk.

As I said, that's a process and it's evolving. We have offered written guidance. Risk based hazard assessment is not only a science, it's also a bit of an art. And it's something that doesn't necessarily come easy to everyone in the workforce.

I think there's an intuitive level of familiarity, but to formalize it in the use of tables and probability charts and failure modes and effects is far in to some. So we're working to, while developing strong programs and procedures, we're also working to upscale and up level the knowledge and understanding of our workforce.

With regard to our safety assurance efforts, we have a rigorous program for critical self-assessment.

One of the things we've worked to build within the system safety department, we created an inventory of what we considered to be high risk, high consequence activities. Activities such as working at heights, activities such as welding, working with high voltage electrical apparatus.

Those activities we have, and are

continuing, to develop a series of control accountabilities with regard to the reduction of risk and the management of those hazards.

We've given to each of the facilities some training relative to what the controls are in place to prevent any unacceptable risks. And we have put together a program, we're rolling it out this fiscal year, for critical self-assessment and certification at each facility or operation.

The critical self-assessment will follow a checklist model. And the responsible Amtrak official for each facility will self-certify that they are in compliance with the requirements for risk reduction in those specific activities.

Once we receive the self-certifications, the system safety department will apply a sampling methodology to determine which areas we're going to go out and field verify, relative to the efficacy of those controls.

We're utilizing the analytics group that we have to identify high priority areas where we want to provide field verification levels.

We're also working to procure the services of the third party vendor, who will perform independent programmatic level assessment of key safety policies

and programs.

Independent of those efforts within system safety, Amtrak has employed a management controls framework. We refer to that as MCF.

That's an independent risk management process. And by risk there I don't mean safety risk, I mean enterprise risk, which also encompasses safety risk.

The management control frameworks process is wholly independent of system safety. So that offers us an independent assessment of the efficacy of our safety assurance efforts and the programs and policies that we have in place.

And with regard to promotion and communication, we recognized in 2014, as we put together the plan for growth and development of the system safety department, that one of the key concepts, relative to determining the success or failure of the departments growth, would be, how effectively we communicate with our employees.

One of the positions in our organization that was critical for us to fill, was the director of polices programs and regulatory initiatives. That position is responsible for the development and implementation of a communications plan.

The communications plan identifies recipients, target audiences if you will, for safety related communications, as well as effective means and mechanisms to relay those messages to the employees.

So we've been utilizing a number of different media. And again, we're evolving and growing. We've put together videos, we have poster campaigns, we've had mailings, we have bulletins and regular messages that go out.

We've developed a system safety email account that is a shared account that the directors of safety oversee. We've promoted that email account to employees, so if they have a question or a concern that they would like to raise, they can send it. Confidentiality is assured, with regard to the system safety email account.

We also have an 800 number that employees can call to report any safety issues, questions or concerns that they have. They're welcome to do so anonymously.

We are working closely with our confidential close call reporting systems group to further promulgate our C3RS efforts and to advertise the actions of the peer review teams.

Lastly we're working to improve our safety

culture with our behavior based safety initiatives. In 2009 Amtrak sought the services of an industry leading contractor to conduct an assessment of Amtrak's safety culture.

Based upon the outgrowth of that assessment, there was a peer-to-peer intervention program that Amtrak implemented. It was referred to as the safe to safer program.

That program essentially creates an avenue for employees to observe and offer guidance and feedback, relative to behavioral practices, with regard to safety.

And we've found that having that avenue has assisted us in terms of getting a message of a positive and proactive safety culture, throughout the corporation. It's something that we're continuing and, again, evolving.

MR. FRIGO: And thank you for that, that explanation. And for those that will read this transcript, the complexities and the fact that I keep hearing from you, transformative and evolving, to me that means that this is not easy. And that there are challenges to accomplishing whether it be a policy of program, an assurance initiative or even a promotional initiative.

And again, sticking within those four areas of interest, what are some of the challenges in, you know, 2014 and now we're in 2016 and we're approaching 2017. I know this is a tall task, but you've been at it for a little bit of time, so what are some of those challenges that have been encountered?

MS. IMPASTATO: Well I can say that if there easy I would not be interesting in doing it. That being said, I think the largest challenge that the system safety department faces, in terms of improving the state of safety at Amtrak, is that we are in a position where we need to influence, without formal authority.

The system safety department is a member of the operations department. And as such, we can only influence, or seek to influence, the actions of operations department.

As far as the challenge we've faced, we've had to overcome a lot of misperceptions, relative to the growth of the department.

A lot of the institutional identity for safety has been linked to employee operations safety. The other aspects of a systems approach to safety, safety engineering, safety assurance, while they've been integrated in a prescriptive approach, that

concept is somewhat foreign to a majority of the rail industry.

And kind of moving folks away from the emblematic aspects of safety, the PPE where's your hard hat and glasses aspects of safety, towards the planning, towards a systems approach, has been a challenge. And that's been a challenge for us to attempt to influence and alter processes, relative to the role of safety in those processes.

It's been a bit of an evolution to move safety into the other phases of the life cycle. We've had some significant success. It was not easy.

But we've had some significant success with regard to incorporating system safety concepts in, at the conceptual and design phases of major projects.

I'm thrilled to say that now we've progressed from a cultural standpoint towards, here's a finished product, safety take a look at it and tell me if there's a problem to, I'm conceding of developing a project or working on a procurement, safety please come to the table and work with me when we're doing our requirements analysis.

We're certainly not 100 percent at the implement therein, but that has been a struggle.

We also struggle relative to resources and

resource allocations. We are a smaller department. And Amtrak has had a succession of events, both internal and industry events, that have resulted in an excessive workload for some of our folks.

The Northeast Corridor is massive. The Northeast Corridor supports the economic engine of eight states in the Northeast. And in terms of staffing levels, there is one director and four lead safety specialists.

So to attempt to implement programs has been difficult. We've been working to grow and to develop additional capacities in order to support the needs based upon the density of our operations.

Resources are an issue. It's difficult to procure advance software speeds. We work with a lot of legacy systems. It's no secret that Amtrak is 40 plus years old, but the Northeast Corridor itself is over a hundred years old.

There are systems that were designed by brilliant minds over a century ago and the documentation isn't there. Trying to just appose modern technology with really based signal systems presents a challenge.

Looking at some of the safety systems that we would like to deploy requires a migration of some of

the current platforms that we've had in place for a number of years. And all of those concerns, all of those actions require dedicative resources. So that's, I would say, one of our challenges.

MR. FRIGO: So am I to understand that the resource, the financial allocation is the main challenge or their, you know, we've heard in other interviews, and you've been part of those interviews, that sometimes departments at Amtrak don't work together. And that people stay in their lane.

Is it just resources or is that an issue? Is the organization and the structure, is that also an issue to achieving what was laid out in 2014?

MS. IMPASTATO: The organization has evolved in tandem with the realignment of the system safety group as well. There was an institutional history of a very strong segmentation, almost a bifurcation if you will, of efforts between operations and maintenance. And then there were supported organizations.

Amtrak had the foresight to recognize that that was not an ideal state. And they sought to reorganize and make changes in 2013 that would allow a greater degree of collaboration that would reduce a lot of the siloing.

I certainly will not say that the silos

don't exist today, but I will say that they're not nearly of the magnitude and scope at which they were when we put together the plan in 2014.

I think centralizing the safety department helped with that effort. Centralizing the safety department reduced the go it alone relative to safety management. This is mechanical safety policy and this is what mechanical does.

Now there's a systems approach to safety and how mechanical safety efforts interface with transportation, interface within structure. We're starting to evolve and grow.

I think that it remains something that we need to be diligent to ensure that the walls that we've demolished are not rebuilt. But I certainly think that we're at a better state today then we were in 2014.

MR. FRIGO: And what would you say the greatest challenge is to achieving the goals set out in that five-year plan?

MS. IMPASTATO: I think the greatest challenge that we face is no different for system safety then it is for any other department at Amtrak.

The only thing constant at Amtrak is change. And change is disruptive and change can be distracting. As administrations and leadership changes at Amtrak,

the continuity of the approach varies and changes.

And I think the challenge that we face is, as we face change, from both internal shuffles and external effects, Amtrak is politically funded. Amtrak receives funding from an external source.

It's difficult to establish multi-year significant capital project investments without knowing that you're going to have a consistent funding source. So I think that issue is an enterprise issue.

And at the micro level, system safety struggles with that as well. That the allocation of resources varies from year-to-year, based on external pressures. And we're forced to deal with that internally. And I think that creates a lot of necessity for ingenuity and that curtails efforts to create broad sweeping, multi-year initiatives.

MR. FRIGO: Theresa, thank you for that excellent, informative explanation on the history of system safety at Amtrak and bringing this from where you were before your time and the decentralized groupings into the current day. I'm going to pass my baton off to my left.

MR. STEARN: Thank you, Theresa. You spoke of your direct reports and you referenced a safety training group. Could you advise, to a layman such as

myself, what is that all about? What is a safety training and what do they do?

MS. IMPASTATO: Certainly. I have a director of safety training. The director of safety training has five master trainers that report to him.

He is responsible for the design and development of safety related training courses. So training, and these are for the enterprise, not for individual departments.

So training course is relative to things like respiratory protection, hazardous communication, lockout/tagout, confined space entry.

Given the former decentralized safety efforts, we discovered that there were a number of alternatives relative to safety courses. That mechanical had a fall protection course, engineer had a fall protection course. That there was a fall protection course in human capitol.

And the safety training group is going to serve as the system integrator for all of those desperate training efforts. They're going to develop the standard platforms using instructional system design methodologies to assess the efficacy of the delivery of training.

They're going to design and develop core

safety curriculum. They'll be putting together multiple means of training, not just formal classroom training.

They'll be working with the subject matter experts in the department to design and develop on the job training, as well as evaluative exercises for skills development, as required under 243. And they're also working to put together a modular approach to safety management concepts, for Amtrak employees.

One of the gaps that we identified in 2014 was the new hire experience. When an employee is hired to Amtrak, dependent upon the department that they enter, they will have a different new hire experience.

One of the things that we're working at is to create a standard platform relative to safety messaging. We think that that is critical in the establishment of our effective safety culture.

We want all employees to know, from the moment they set foot on Amtrak property, that safety is this corporations number one priority and that these are the avenues available to you for information and education. These are ex officio, the groups and positions that can help you, and these are the training programs that are available to you.

The safety training crew put together a

letter, from the CEO, that goes to all new hires in their package. It introduces them to Amtrak, as a corporation, establishes safety as Amtrak's number one priority. And at the 30,000 foot level, gives them a primer on what they can expect in the weeks and months to come, with their new hire experience.

We're now working on a CBT for both a new hire employee and a supervisor employee. That will give them a supervisor's guide to safety and a new hire guide to safety.

It will explain to them what you need to know, relative to safety management, goals, objective, avenues. What to do if there's an incident, appropriate incident reporting.

And for supervisors, what your expectations are, what Amtrak's expectations are of, you, as a supervisor. And to whom you can reach if you have any questions.

MR. STEARN: Thank you.

MR. WALKER: Yes, I have one. One question, are you qualified in the (indiscernible) regulations?

MS. IMPASTATO: I am.

MR. WALKER: Have you taken the initial course and do you keep current with the annual refresher courses?

MS. IMPASTATO: I do. I took the new hire course in 2011. And the last date that I took the annual refresher course was December of 2015.

MR. WALKER: Okay. It was mentioned that it was a consensus to remove the SSD rule from the manual. Did anybody whose, say qualified on that, convey to your attention that moving the SSD rule from the manual sort of got into the violation of the federal regulations?

MS. IMPASTATO: I was not a member of the committee in 2014 when that was done. That was done when the committee was still part of engineering. That book was released in July of 2014 and the engineering safety department moved into system safety in August of 2014.

MR. WALKER: Okay.

MS. IMPASTATO: That being said, I was not made aware of any questions, concerns or issues with the removal of that.

MR. WALKER: Okay, that's all I have.

MR. HIPSKIND: Thanks, Fran.

MR. HILL: Hi, Theresa. One quick question. It's really in regard to the overall, you've been here and witnessed a whole lot of testimony throughout this entire process and also (indiscernible). And you and I

was part of (indiscernible) and also Vermont.

From my perspective, (indiscernible), including this investigation, with regards to job duties, the conductors and engineers seem to have a set protocol with regards to their job functions incurred.

Each incident that I've been a part of, the testimony from each crew member has been the exact same with regards to the job briefings and they take it extremely serious. Why is it such a difference with regards to the job experiences?

MS. IMPASTATO: So if I understand your question, you're asking me, what is the difference in approach to job briefings between the engineering department and the transportation department?

MR. HILL: Yes.

MS. IMPASTATO: I don't know exactly what the differences are from a quantitative standpoint. The engineering department has a job briefing guideline. It is taught and instructed. The importance of job briefings is emphasized through multiple mediums.

The job briefings are formulaic in that they have a briefing guidance sheet that annotates ever element, critical to the safety of the job. And it is expected that employees will go through and process all

elements of that briefing.

As to whether or not that happens with the same degree of regularity or diligence of the transportation department, I'm certainly not qualified to make that assessment with engineering.

MR. HILL: Thank you. That's all I have.

MR. BEATON: Good afternoon, Theresa. I guess I probably ought to start out by offering my perfunctory apology for being enthusiastic.

MS. IMPASTATO: None necessary.

MR. BEATON: I'm certainly not intending anything to be a reflection on personal activities or skills.

I heard you describe, what I'll call a rich, and I wrote it down in my notes, a rich set of safety initiatives. You have a broad spectrum of activities going on in your office that barely covered the waterfront. And I also heard you describe your characterization of Amtrak safety culture as evolving.

And for me the word evolving sort of conjures up a timeline. It starts from kind of an innocent new beginning to some point we're decommissioning these old antiquated systems.

And where along that evolutionary timeline would you put Amtrak?

MS. IMPASTATO: I would say we're experiencing a renaissance of sorts. The rail industry in general, from a historical perspective, had the makings of a high performance organization, a higher liability organization, where there was a culture dedicated to risk elimination and risk reduction.

And as I stated earlier, I am continuously impressed, and I'm endlessly respectful of the minds that designed these systems a hundred years ago. Given the technologies that were available to them.

There's some elegance in the design of railroad operations, railroad signaling and just general rail concepts.

I think the initial culture that complemented those designs was one of resilience. And I think the initial culture that complemented those designs was of necessity. Very diligent with regard to a continued resolution to comply with the rules and requirements of the system.

I think that there was, at a universal understanding, that the rules and administrative controls that were used were the last line of defense. There was not a technology in place that would prevent a mishap from occurring.

And I think by virtue of that culture

established in the early 20th Century, in the hay day of the rail system, the railroad industry had tremendous success relative to its operations. As service dwindled, you saw a departure of minds that took a systems engineering approach into other competing modes of transportation.

You saw a departure into aviation, you saw a departure into defense. And I think the rail industry, in general, lost touch with some of the cultural aspects of a high performance, high reliability organization.

And by virtue of the legacy of the brilliant decisions made to one to two generations prior, I think there developed a bit of a cultural malaise, if you will. I think there developed a normalization of deviation in efforts and mindsets in the rail industry.

And I think in the late '90's, through today, we've, we've as an industry, not just Amtrak, have experienced both a tremendous growth and opportunity to apply technological solutions to longstanding problems, but also have had some very significant catastrophic accidents and incidents.

And I think that we're now undergoing a bit of a renaissance. A bit of a drifting back towards that high performance, high reliability culture. That

we're seeking to utilize modern technologies to reduce opportunity for risk and are working to bracket them by improving safety culture.

And I think that's a bit of a challenge, given that employees in the rail industry are not transient. Employees in the rail industry are incredibly dedicated.

And employees in the rail industry work the duration of their careers in this industry. You don't work in rail for a year or two and then move to another industry. You might move agencies, but for the most part, you're here for life.

And I think part of the evolution that we're undergoing is going back multiple generations to start re-energizing that systems approach. To start re-energizing the human factors element and to start reemphasizing the importance of programmatic assessment or critical self-assessment of not normalizing deviation of diligence and consistent resilience.

So I wouldn't say that there's a bad culture that needs turnaround, I would just say that it's kind of an evolution, or a revolution if you will. It's reiterative.

MR. BEATON: So I appreciate that answer. I guess my take away from it, because the question was,

where along the scale are you. I don't hear that you're at the beginning of the sale. I don't hear that you're ready to decommission everything, go do the hyper loop system.

So I would say that you're probably fairly well into this transformative institutional change, okay. And then it sounds to me like you've got, in your office and above you, because I assume everything that you're doing is got top cover from managements and pretty progressive visions of how things should be. Okay.

Ryan kind of characterized, or made a request, that you characterize things in terms of SMS. And one of those pillars is promotion.

You don't seem to have a problem with the vision. You don't seem to have a problem with knowing where to target the resources. Am I hearing that there's a problem promoting some of these initiatives, throughout the institution, to the workers?

MS. IMPASTATO: I wouldn't characterize it as problematic.

MR. BEATON: Okay.

MS. IMPASTATO: But if I were to assess the strength of each of the pillars, I would say that that is probably the weakest.

MR. BEATON: Okay.

MS. IMPASTATO: It is the most challenging in terms of getting a message that is relatable, that is understandable, that is clear and that is communicated to all. It's been difficult. We've gotten better, but we certainly have a ways to go.

MR. BEATON: One of the safety promotions that I've had the opportunity to come familiar with is offered by a consulting company. And they label it in a way that I remembered. It's called, beyond zero.

Meaning, let's not just drive accidents down to zero, but let's go beyond zero with the implication being that safety initiatives that I participate in at work give me some value, give me some education, allow me to internalize that so then I can take them home with me and follow some, maybe PPE at home cutting the lawn or something. Because it works at work and I've learned there some value.

Do you have visions for trying to integrate the safety initiatives into the lifestyles of the workers that is in the spirit of a beyond zero type of program? Has that been one of the things that's been talked about?

MS. IMPASTATO: Absolutely. Amtrak has a wellness group --

MR. BEATON: Okay.

MS. IMPASTATO: -- in our human capital department. We work closely with them.

We've worked to develop and implement critical incidents stress plan to work with the employee assistance program.

MR. BEATON: Okay.

MS. IMPASTATO: And to also work to develop elements of a true wellness program. Incorporating some core safety concepts of course and encouraging people to have the same level of diligence in their personal life that they have and their professional life.

And we've worked to personalize the message. In some of our leadership training we've worked to kind of draw the connections and the parallels between what you do at home and what you do at work. And your tolerance for risk in both ventures, in both venues.

So the answer to your question is yes. As far as the maturity of that, I would say it's beyond the incipient phases, but it's still foundational.

MR. BEATON: Okay. Okay. So just one last question. If I ask you to kind of characterize the state of maturity of safety culture at Amtrak, at different levels of the company, you know, senior

management, middle management, the point of despair and groups on the ground, workers, the crafts, could you just give me a quick summary of where you think the maturity level of safety culture is across the organization?

MS. IMPASTATO: Absolutely. However, I'd like to preface this by stating that I don't have a significant data population --

MR. BEATON: Okay.

MS. IMPASTATO: -- to make this quantitative, so this is purely my qualitative assessment.

MR. BEATON: That's great. That's what we need.

MS. IMPASTATO: Based upon the antidotal evidence and my personal experience, I have seen a significant dedication to safety at all levels in the organization. I have not seen a level of the organization at Amtrak that is dismissive of safety. I believe that everyone is rationally self-interested in the promotion of effective safety practices.

MR. BEATON: Okay.

MS. IMPASTATO: I think by virtue of the perspectives of varying levels at Amtrak, I think there is a bit of a skewed, limited and/or keyhole

perspective that each level of the organization has.

I think that the organization, closer to the work, the line or ballast level, if you will, I think that their perspective is somewhat limited relative to the decision making process and what goes into the decision making process. Why certain decisions are being made.

And I think that to compliment or to mirror that, at the upper echelon of the corporation, I think that there's also a somewhat limited perspective relative to the understanding, at the ballast level, of the decisions that are being made.

And I think that's been identified, both internally and through external query, as an avenue for improvement. Again, that safety promotion pillar.

MR. BEATON: Okay. That's it for me. And so I just want to thank you. It certainly resonated with me when you made the comment that you're working diligently to improve the safety skills of the staff. That resonated well with me. Thank you.

MR. HIPSKIND: This is Dick Hipskind. I get the thing, Theresa, I get the thing about the evolution or revolution. And I just want to get your thought. Are you evolving on an existing model, are you evolving designing a new one or are we trying to replicate on of

yesteryears?

MS. IMPASTATO: I would say that it's iterative, but differentiated from the past. And I don't mean to give a cryptic answer.

We're not repeating the past, but there were solid elements of the system, from a cultural standpoint, from a perspective standpoint, from a prioritization standpoint, that we're working to recapture.

As far as the differentiation therein, we're in a different climate, in a different environment. We have tools available to us that were not available back then.

We have advance systems analytics, we have ergonomic options that were not available back then. We have opportunities for increased training. And our workforce is different.

The workforce we face today is not the same demographic of the workforce that was in the rail industry a hundred years ago.

MR. HIPSKIND: So new and improved?

MS. IMPASTATO: Yes, new and improved.

MR. HIPSKIND: Okay. All right. And I don't think it's lost on any of us that to achieve this evolving new and improved, training is a big part of

that, true?

MS. IMPASTATO: Absolutely.

MR. HIPSKIND: Okay. And one of the things I hear you, when you gave some numbers about where the number of people were at several years ago, and I wrote them down, and it seemed to me that in a few years, after this new committee to safety, I wrote down, the number of people have doubled. And then as I listened to you give a long answer, it sounded to me like, sometime in the near future, some of the goal is to have that number, the current number, double again.

MS. IMPASTATO: That's correct.

MR. HIPSKIND: Okay. So is it fair to say that one of the things that you see happening with the safety department is greater interaction in all departments, at all levels?

MS. IMPASTATO: Absolutely.

MR. HIPSKIND: More so than right now?

MS. IMPASTATO: Absolutely.

MR. HIPSKIND: And that's by thought and design, and as a goal?

MS. IMPASTATO: Yes.

MR. HIPSKIND: Okay.

MS. IMPASTATO: We are constrained by the current ratio of full-time staff to the number of

Amtrak employees.

MR. HIPSKIND: Okay.

MS. IMPASTATO: And we're going to address that by virtue of increasing the departments prevue.

MR. HIPSKIND: All right. And I've got limited time, but I want to self-limit myself here. We talked yesterday about a fall protection. And we were kind of jumping around the place.

There's Part 214, fall protection, when workers are on a bonafide bridge structure. And we were talking about the challenges of fall protection, et cetera.

So can you go back and dial us in on how long this challenge has been going on and talk about OSHA and just get us a little bit more clarified then where we left off yesterday.

MS. IMPASTATO: Okay. As I stated earlier, and all of you know, the Northeast Corridor is a legacy system. The Northeast Corridor was electrified approximately a hundred years ago.

The electrification of the Northeast Corridor required various structures to be built. Those structures predated OSHAs prescriptive fall protection requirements. Those structures are catenary mast and signal bridges.

We currently have today, on the Northeast Corridor, 100-year-old structures that support our wires and that support our signaling system.

In 1978 the FRA issued a policy statement preempting OSHAs fall protection requirements along railroad right of way and in railroad facilities. That policy statement preempted the OSHA regulations for fall protection. Specifically pertaining to signal bridges, signal mast and catenary structures.

The FRA did not promulgate an equivalent prescriptive fall protection requirement for those specific structures. The FRA did promulgate a fall protection standard relative to bridge worker safety. Their bridge definition was very specific and does not include overheard structures, such as signal bridges or catenary masts.

The main issue, that was eluded to yesterday, was that by virtue of the age of the structures, Amtrak is not able to retrofit some of the signal bridges and catenary masts to provide fall protection systems that would meet these standards established under the OSHA regulation, regardless of the fact that the OSHA regulation does not apply.

MR. HIPSKIND: Weakness of the structure to decelerate or break somebody's fall?

MS. IMPASTATO: Correct. The structures are sound, for their intended purpose. To hold up a signal head, to hold up catenary. But they are not structurally sound to support a 5,000 pound anchorage point for personal fall arrest system. They require either significant rework or replacement.

By virtue of the hundred years that have lapsed, since the electrification project, there were a number of structures that were added. Between the initial electrification and currently today.

We do not have a singular design for signal masts, signal bridges or catenary structures. There's a series of designs, made based upon the era of the installation and the technologies and building materials available.

All newly constructed and installed catenary structures, signal masts and signal bridges, have incorporated passive fall protection systems. Caged ladders, effective railings. There's no need, in any newly installed structure, for an active fall protection system. The use of a vertical or horizontal lifeline or personal fall arrest system.

We did an inventory, and Matt spoke briefly about it earlier, relative to the existing structures. Any structure that was structurally capable of

retrofitting has been placed into a capital project for retrofit. For vertical or horizontal lifelines and/or railings to be installed to obviate the need for an active fall protection system.

We have identified structure that we are not able to retrofit. The structures that we're not able to retrofit have an interim safety mitigation in place.

MR. HIPSKIND: From --

MS. IMPASTATO: The safety mitigation for those structures are that they are not to be ascended or descended directly. That they are to utilize the bucket truck to access the structure.

So in short, this is a hundred-year problem that will require a multifaceted, multi-year solution. We're not going to replace ever existing structure overnight. So we're doing the most we can to ensure the safety of our employees.

MR. HIPSKIND: But the key change was, what, 1978? Was when, essentially, OSHA got out of the business of coming on the property for these kinds of occupational things.

MS. IMPASTATO: OSHA never came on the property for those things. When the policy statement was issued by FRA in '78, it preempted OSHA for coming on the property.

MR. HIPSKIND: Okay. All right. That's all I have, Theresa. Thank you very much.

MR. FRIGO: Theresa, we're all here today because of the accident at Chester. And I'd just like to give you an opportunity to talk about, from your perspective as the deputy chief safety officer, what's Amtrak done since the accident?

MS. IMPASTATO: First and foremost, we've met critically to discuss what we feel are areas for improvement to prevent recurrence.

We have immediately issued communications emphasizing compliance with the existing requirements. We clarified the requirements for supplemental shunting devices.

We are working to create a prototype supplemental shunting device that would provide an indication, via the use of an LED, of an active shunt. We're currently working with a third party to get some prototypes manufactured for testing.

We're also working to develop an overlay system to provide an additional level of redundant protection, with regard to employees that work on the right of way.

We've done a best practice sharing visit with both Metro North and SEPTA. They currently

employee and enhanced employee protection system (indiscernible) on Metro North. And a work zone protection system on SEPTA that offers a computer based overlay into a supervisory system that essentially serves as the same protection of a supplemental shunting device.

It would be entirely passive to the employee in charge. Anytime an out-of-service would be issued from the dispatcher, it would employee, through the use of a secured server, a randomly generated release code. Which would prevent the dispatcher from removal of blocking devices and inadvertently operating a train into an area that was to be protected. We're looking at deploying that system in 2017.

We have also worked with our procurement group to identify a third party vendor to conduct a review of our Roadway Worker Protect Manual. To determine if there are opportunities to increase the ability to comprehend, understand and therefore implement the requirements in the Roadway Worker Protection Manual.

We are undergoing a full revision of the Roadway Worker Protection Manual. That's both as part of the Train 89 efforts, as well as changes in the regulations.

We anticipate that we will have a fully revised RWP Manual in April.

We also are working to make significant improvements with our training. System safety has reached out to our human capital training department.

And we've requested to partner with them to critically self-assess and evaluate the content and delivery and field exercises relative to the RWP instruction. That's a process that we're working towards with significant revisions anticipated in training, in the next fiscal year.

MR. FRIGO: Great, thank you.

MR. HIPSKIND: This is Dick Hipskind. I know people have planes and trains to catch, so on behalf of the Investigative Group Specialty Track and Engineering Group, I just extend out personal thanks for everything you've been doing. Let me read four quick questions for you, okay.

You have heard these many times. Is there anything you would like to add or change?

MS. IMPASTATO: No.

MR. HIPSKIND: And are there any questions we should have asked but did not?

MS. IMPASTATO: No.

MR. HIPSKIND: And do you have any

suggestions for preventing a reoccurrence? I think you covered several of them --

MS. IMPASTATO: I have.

MR. HIPSKIND: -- with your follow-ups. And is there anyone else that we should interview?

MS. IMPASTATO: No.

MR. HIPSKIND: Thank you very much, Theresa. Oh, excuse me. John?

MR. SALVEY: I have no questions

MR. HIPSKIND: Okay. Thank you very much.

MR. FRIGO: Theresa, thank you again for our time.

MR. HIPSKIND: Thank you.

MR. FRIGO: We're off the record.

(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
April 3, 2016
NTSB Accident No. DCA16FR007
Interview of Theresa Impastato

DATE: 09-08-16

I hereby certify that the attached transcription of page 1 to 57 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]