

Global Railway Alliance for Suicide Prevention (GRASP) | NOTES

Meeting Date | 4 December 2017 (and 6 December 2017)

Meeting Location | WebEx/Call

Members Attending

Organizer: Scott Gabree (US)**	Andy Martin (US)**	Ian Stevens (UK)
Ann Doucette (US)**	Michael Martino (US)	Anne Silla (Fin)
Danielle Hiltunen (US)	Grigore Havarneanu (Fra)	Naomi Frauenfelder (Aus*)
Bianka Mejia (US)**	Brian Mishara (Can)	Sho Ishii (Japan*)
Starr Kidda (US)	Helena Radbo (Swe)	

* Participated only in second call on December 6th

** Participated in December 4th call *and* second call on December 6th

Members Absent

Ruth Baldwin (Ire)	Mark Geisler (Ger)
Gerald Beesley (Ire)	Stephanie Chase (US)
RoyWeiShun Chen (US)	Ann Mills (UK)

Agenda

The goal of this semi-annual call is to allow each participating country to provide updates about completed, current, or planned work with respect to rail suicide prevention.

Australia

- The biggest effort underway from TrackSAFE at this time is a new signage campaign with their lifeline.
 - The lifeline number in Australia is 13-11-14, and in this, the “11” looks like a pause button – so they took this as a launching point and created this campaign. The idea being to “pause”, “call”, and “be heard”. Three examples from this campaign are below.



- They are launching this broadly – on huge screens in stations and on train cars. This effort is currently live across Queensland and Victoria and will be live in other areas across Australia soon (including NSW by the end of the year).
- There is also an all-digital launch of this campaign where the signage “breathes” with you. It has a pattern on the ad which expands and contracts with your breath as it tells you to pause, call, and be heard. See an example of this below:



- Professor Jane Pirkis (University of Melbourne expert in suicide and messaging) is doing an evaluation of this signage effort. This evaluation is going to begin in at some point in

the middle of next year. Jane will be interviewing around 1000 riders on platforms to understand their thoughts about this campaign.

- This campaign was not developed in a bubble. Focus groups were held in Sydney and Melbourne. Participants of these focus groups were those with lived experience (had attempted or considered suicide in the past) and mental health/suicide prevention experts. Initial version of this campaign were less “positive” (e.g., “feeling depressed?” vs. “be heard”) and the consensus was that they wanted a more positive message. This final campaign takes these thoughts into account.
- This is an effort that is being performed by TrackSAFE, as a group that is representing industry, who is then partnering with Lifeline.
- In the near future they are having a two-hour round table hosted by the Victorian Minister for Transport and Minister for Mental Health. There will be a wide variety of stakeholders at this meeting and the entire goal is to have a conversation about rail suicide and what can be done.
- Community Stations effort is still continuing. This is an effort to transform certain stations into locations where the community could gather and in many cases learn about mental health (in addition to other activities largely aimed at increasing positive emotions).
 - A toolkit was very recently released outlining how stations can work towards this goal.
 - A final evaluation was also completed (by Jane Pirkis) – and is available.
- Rail R U OK? Day – this is a day where rail staff are encouraged to reach out to one another to ask, “Are you ok?”
 - 2017 marked the third year the rail industry participated in RU OK? Day.
 - The first year they had roughly 8,000 participants
 - The second year they had roughly 11,000 participants
 - This year participation was up to 14,000 and New Zealand joined the fold
 - While this really is a suicide prevention campaign – the rail industry also sees this as an opportunity to allow for a greater bond between workmates. The rail industry is a workforce that spend a great deal of time together – we should look out for one another.
 - There is a broader goal to try to upskill staff to use this type of mindset throughout the year and consistently look out for one another.
 - Planning has already started for RU OK? Day next year which will take place on 12 April 2018.
- Many academics have mentioned that a person in the final stages of considering suicide are beyond a point where reason and logic is likely to work. This is why Australia have shied away from appeals to the lack of lethality of the trains as a means for suicide.
 - It was mentioned that these types of messages could be effective, even if promoted at stations, for people earlier on in this process. Individuals may be at the stations prior to experiencing ideation and in those moments the ideas that trains are not certainly lethal may be more effective.

Canada

- There is currently some consultation in Canada on an update of the Railway Safety Act. They are looking at how they may completely change the routine that surrounds rail safety in the country.
- There are currently several rail safety review teams who have been assembled to address different issues: crossings, communities, and suicide prevention. These involved a variety of stakeholders from academia, to the regulators to Operation Lifesaver.
- There are likely some changes coming at Transport Canada in terms of how rail safety is being conducted.
- Several projects have been completed or are in the process of being finished:
 - Impacts of different practices for critical incident response (this includes both train-person strikes as well as near misses). This research effort involved following up with rail crews from the time an incident occurred to many months after to assess the impact of various strategies to reduce long term impacts on crewmembers. This first report (Cecile Bardon was the lead on this effort) – should be out for publication soon.
 - In another effort that is still ongoing, people were interviewed in a hospital settings after a suicide attempt on the Montreal Metro system. The goal was to understand, in the short term after an incident, why that method was selected.
 - Initial findings seem to confirm an old study from Boston (1970's) – they felt this was a certain way of dying and they thought it would be instantaneous.
 - Also, people had been exposed to a suicide in the past (in a train where a suicide occurred or had known someone who had attempted).
- A prior study from UQaM looked at behaviors prior to suicide attempts on the Montreal Metro. Brian noted that these incidents often involved a lot of hesitation and ambivalence. Leaving the station and coming back, waiting for several trains to pass. Also it often involved multiple visits to the station. This indicates that these incidents are not often impulsive, but rather, thought out, and that intervention may be possible in these moments of hesitation.

Finland

- Finalizing a study investigating how to effectively use GIS mapping to better understand why incidents occur in certain locations at certain times.
 - Both trespass (unintended strikes) and suicides are being included – and compared to one another.
 - Collected information includes:
 - Rail operations data – including number of trains and traffic (though these data are difficult to assess historically)
 - Socio-economic data – gathered from public sources to better understand the makeup of the population surrounding a given location.
 - Location of schools
 - Location of bars and night clubs
 - Known, but unofficial, crossing points

- For this effort, a buffer analysis and multivariate analysis were conducted using a 0.5km buffer around the location where an incident occurred.
- Variables can then be inserted to determine the most relevant variables.
- Also looking at the track surrounding where these incidents occurred.
- There are some links to issues in rural areas, especially for trespass incidents.
- Suicide seems to be somewhat correlated with urban areas and high-speed trains – as well as prior suicide attempts.

France (UIC)

- Suicide prevention is a topic that they are following at the International Union of Railways (UIC), but is not very active at the moment. RESTRAIL ended in 2014 – and have not yet found a new EU funding opportunity to continue this work.
- UIC is, however, maintaining the toolbox as much as they can with their limited resources to do so: <http://www.restrail.eu/toolbox/>
- The newest effort is similar to RESTRAIL, but is focused on level crossings. This project, SAFER-LC, can be found at this website: <http://safer-lc.eu/>
 - This was started this year in May and is intended to go for three years. Funding is provided by the European Commission.
 - Norway, Finland, Germany, Belgium, France, Italy, Spain, Greece, Hungary, and Turkey are involved.
 - One main goal is to improve the infrastructure at crossings.
 - Early detection systems
 - Communication between the train and road vehicles
 - A better understanding of human processes and decision making
 - A few key questions being asked:
 - How can infrastructure be better adapted to the end users?
 - How can we account for particularly vulnerable road users: pedestrians, cyclists, hearing impaired, visually impaired, etc.
 - An output of this effort will be a new toolbox for level crossings.
 - This work involves trespass at or near level crossings.
- Updates from other UIC members
 - Interest from the Eastern European and Balkan regions (e.g. Croatia, Romania) – they are reaching out to UIC about rail suicide and PTSD as they have become more interested in this topic and are interested in starting national programs on rail suicide and are looking to the UIC for assistance.
 - Hoping to start next year and coordinate workshops to share potential mitigation strategies.

Japan

- There is no specific department for suicide prevention in railway bureau, so much of the suicide prevention work done on the rail system comes from a variety of different resources.

- Basic framework for suicide prevention based on the Basic Act on Suicide Prevention was developed about 10 years ago in Japan
 - This was an act that established:
 - Suicide Prevention Awareness Month is March every year
 - Suicide Prevention Week is the 2nd week of September every year

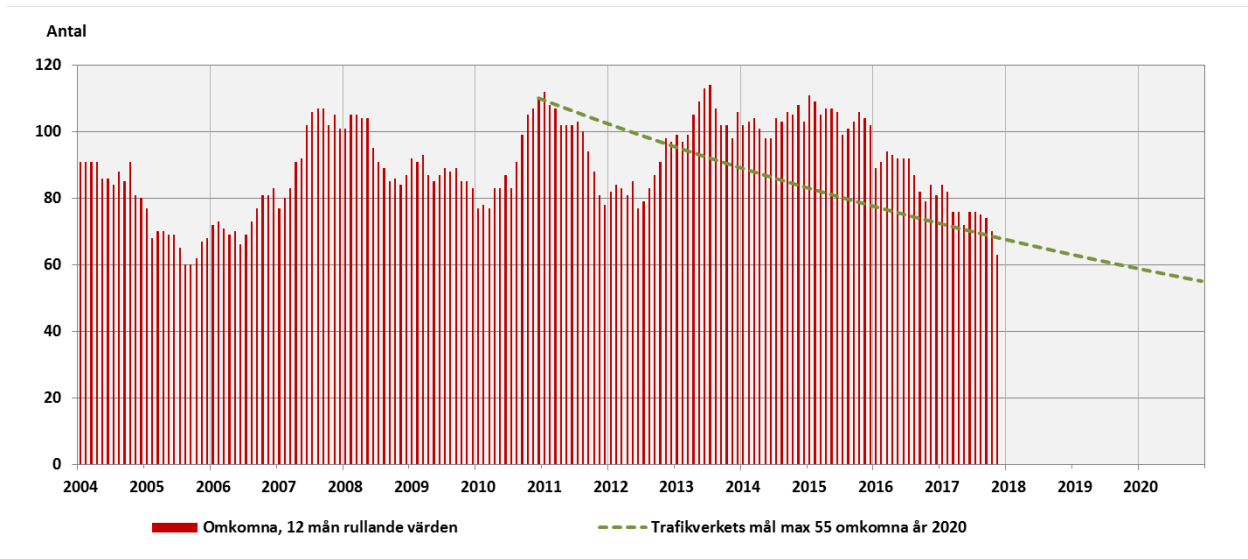
During those times, every rail carrier talks to organizations familiar with suicide prevention and they work to implement policies about that topic during those time periods

- The average number of individuals who take their life in Japan each year is about 21,000
 - 500 of these suicides take place on rail system (less than 3 percent)
 - Because this proportion is so small, the majority of work on suicide prevention is done outside of the transport ministry.
- Ministry of Health and Welfare made posters about suicide prevention where were given to railway operators to put up in stations.
- Ministry of Health and Welfare has provided grant program since 2009 to promote suicide prevention at the regional level. These grants give subsidies to local government to implement suicide prevention measures.
 - After an application to implement a suicide prevention measure is approved by the central government, they can implemented.
 - Many of these proposals are not railway focused, but some are.
 - In some cases, this grant program was used to install blue lighting on platforms and at crossings
 - Blue lighting is said to be effective for calming emotions
 - Also used to install fencing in some areas.
 - Also some funding was used to develop and distribute publicity posters and brochures
- In most cases, the Ministry of Transport does not directly address suicide often – this is seen as a topic which is under the purview of the Ministry of Health and Welfare.
- However, there are certain measures which are not necessarily “suicide prevention” focused, but will have a big impact on rail suicide.
 - They have a goal to increase the number of stations with platform screen doors to 800 by 2020. This is one of the most effective measures in Japan. This effort is not really aimed at those considering suicide, but rather at the 3000 people who fell from platforms last year (50% of whom were drunk and many others sick). Though they do believe that these doors will also help prevent suicide.
 - Questions were asked about these doors and how one might retro-fit a station with this type of technology.
 - One of the major challenges with these doors is their weight. A station must be built to hold a large amount of weight on the platform edge. Japan has a wide variety of platform screen doors which can be used with the variety of rolling stock which are available on the rail network.
 - Mr. Ishii will provide images to the group of various platform door designs so the group may see how the styles can differ depending on the trail types.
 - They are working towards promoting and developing more safe rail crossing facilities
 - The grant program is being used for this effort.

- This is an effort that is mainly focused on trying to ensure that the elderly are able to cross the rail lines safely – but there may be suicide prevention benefits to this work as well.

Sweden

- Still working on the same things that were discussed last call – specifically:
 - Fencing
 - Fencing the ROW in known problem areas.
 - Traffic control and partnerships in the society
 - Working closely with police, rescue services and security guards – and having them coordinate with the rail carrier to stop trains in areas of higher risk.
 - Trains were stopped or having reduced speed more than 200 times and the person at risk was taking care of, so far this year. While delays occurred as a result of these train stops, it was seen as necessary to achieve their safety goals.
 - New generation of CCTV cameras
 - A person, at traffic control Centre, watching CCTV gets an alert – they stop the traffic and call the police if the threat seems real and persistent.
 - Infrared cameras which can detect people in the dark – which triggers the first alert and then other cameras to detect more detail.
 - These cameras were mainly installed for suicide prevention.
 - Anti-trespass grids
 - Anti-trespass grids have been installed in six places: platform ends, crossings and at the ends of tunnels.
 - Used to prevent purposeful trespass, but also to make clear that people are not intended to go in certain places.
 - They feel that these are working quite well and intend to update the RESTRAIL toolbox to reflect this new information about the effectiveness.
- Thus far, it seems that fatality numbers for this year are down.
 - 2012 – 2015: roughly 90 fatalities, (Jan-Nov)
 - 2016: 78 fatalities (Jan-Nov)
 - 2017: 60 fatalities (Jan – Nov)
 - Decrease is quite clear – though the specific reasons cannot be directly associated with any one mitigation.
 - However, it seems clear that the CCTV cameras (complimenting the fencing in certain areas) is working
 - In one area, they dropped from 19 fatalities per year down to 5 after putting in the CCTV and fencing.
- They are also working on level crossing issues as well.
- Safety goal is to decrease fatalities by 50% from 2010, so this is the main thrust of their efforts. The graph below shows monthly suicide fatalities alongside in red. The green dashed line represents the target to reach by 2020.



United Kingdom (UK)

- Network Rail operates on a fiscal year calendar, so their annual numbers are not available until the end of March, 2018. However, last year was the lowest year for suicide fatalities since 2010, and this year is on track to be even lower.
- Network Rail typically experiences two spikes in suicide numbers (April and Sept/Oct) – they saw a new trend this year – the spike seemed to occur in the summer rather than the fall. The reason for this shift is not clear.
- Intervention numbers are going up. While you cannot correlate the increase in interventions with the decrease in suicide – both metrics are trending in the right direction.
- Related to the intervention work – Network Rail recently launched a new campaign to try to engage the public in identifying and intervening with those at risk for suicide.
 - This new bystander campaign was largely based on Westminster University's effort that concluded last year (this report involved interviews with survivors of suicide attempts – who discussed what drove attempts via rail and what could have prevented it). The idea was to encourage customers to engage with other individuals who appear distressed.
 - The initial launch of this effort was on the 15th of November, 2017.
 - This was largely a social media campaign, asking train passengers to look out for people in distress and engage with them. More can be found here: <https://www.samaritans.org/media-centre/our-campaigns/small-talk-saves-lives>
 - Received very well by the public and parliament – has spurred a debate about social obligation and what responsibilities people have in their everyday lives.
 - There was a short video that went along with it: <https://www.youtube.com/watch?v=KiynAdEuyWQ>
 - It is too early to tell of the impact of this effort– but the response thus far has been positive.
 - One new aspect that has come out of this is that the industry is now talking about suicide and rail in the same breath – something that was heretofore not considered.

- A similar effort was implemented in Montreal about 15 years ago with red phones in Metro stations. Customers were encouraged to pick up a red phone to inform individuals that appear distressed in some way. The campaign was opposed by mental health organizations because people with mental health issues would be stigmatized by this campaign.
 - This concern was understood in the UK – but they have been in close contact with these 60+ organizations throughout the effort, which has been received positively. They hope to continue to work closely with these groups in order to implement the bystander campaign in a way that is appropriate and well-received.
- Network Rail are still trying to move the debate about rail suicide responsibility to the public and out of the sole hands of the railway.
 - Historically, a rail suicide has always been seen as the rail’s fault – but Network Rail are now seeking greater societal involvement (they do put up fences and implement other mitigations – but suicide is largely out of their control and is a larger societal issue).
 - They are working with parliament to make clear this is a societal issue – society and should also address this issue, with the help of Network Rail.
 - Network Rail helps hot spot communities to address issues at the community level – and they reach out when they see a community that may be in need of help.
 - Over the last 18 months they have seen a reduction of suicides by 30% where they are directly involved with local communities – while not a statistical argument, it is a positive outcome.
 - Outreach to these communities is a key part of what they are doing.
- There were a few areas which have experienced a higher number of suicides than normal. In one area they had 7 events in 4 months. They are currently looking into why the spike may have happened, and are moving those areas up their risk mitigation list to prioritize them.
- There is a lot of Samaritans messaging promotion – trying to promote suicide prevention in the public eye and getting these messages out in a variety of ways.
 - Getting Samaritans messages on busses around town.
- Where they have had high risk locations, they engaged with anthropologists to look at socio-economic issues that may be driving these numbers.
 - They chose to dig deeper into specific communities because they have found that people don’t often travel more than 5km to die on the rail.
 - How does rail get on an “ideation menu”? How did rail become an option for committing suicide?
 - Findings are quite interesting, but very preliminary. One item is that people may not know where an incident happened when they first hear about it – but they may instantly believe that it was in a particular location based on pre-conceived ideas.
 - There will be much more in the coming months from these studies.
- Starting to try to predict where a suicide will occur using socio-economic mapping.
 - They already know that rail suicide is an urban issue and occur on high speed lines. But now they are digging in a bit deeper to understand the types of people who live in these areas.

- Level crossings are also a key issue
 - How can we prevent suicides at level crossings? This will likely take more than signage and will almost certainly involve engagement from local communities where problem crossings exist.
 - They are now trying radio advertising in certain locations since they know this will reach a broad audience.
- There is now a station design task group. This task group is working to understand what mitigations can be put in place if a new station is being designed or if a station is being re-designed.
 - In addition to physical changes, how do risk profiles change as operations change at a particular station? If you change the timing of fast trains or add new trains, how does that change the risk?
 - If a new station is being designed, who needs to be involved to best mitigate risk?
- Looking at the areas of track that have moved on their risk ranking system:
 - Why did some locations drop off this list?
 - Why did new ones come onto the list?
- Recognize they are not going to solve this issue by themselves, and are working with parliamentarians to try to utilize others who are experts in this area. This involves working with Coast Guard and some others to collectively implement strategies.
- Trying to understand if they can lean on vendors in the stations (e.g., selling coffee) to shoulder some of the burden – they are now considering whether vendors should be contributing to suicide prevention since they are benefiting from the station traffic. What can they do to provide support?
 - This is likely to be an activity for next year.
- Continue to implement mitigations (e.g., fencing and CCTV) – but they generally feel that by the time a suicidal individual has reached the rail, it is too late. They want to move this issue upstream to prevent people from considering rail suicide in the first place, rather than prevent the act once they've already decided.
- Question from FRA about if Network Rail are looking at other data outside of their collected incident data.
 - Network Rail know that they don't understand what is happening around their rail infrastructure (e.g., gentrification or developments that may change demographics) so that is hard to control.
 - They do, however, have a lot of health department data, which are quite helpful for understanding the people involved. These data include health history and socio-economic factors.
- Largely, this comes down to Network Rail trying to understand, "How do we move the rail off/down their ideation menu?" That is not to say they want them to choose another method, but rather how to remove these options.
- The survivor study conducted last year highlighted that one of the reasons people chose the rail was that an intervention was unlikely. Because of this, they are also attempting to highlight the number of people trained to intervene publicly. The idea being that if people know they might receive an intervention, they may not go there in the first place. Their effort to engage with the public to intervene is another way to highlight this.

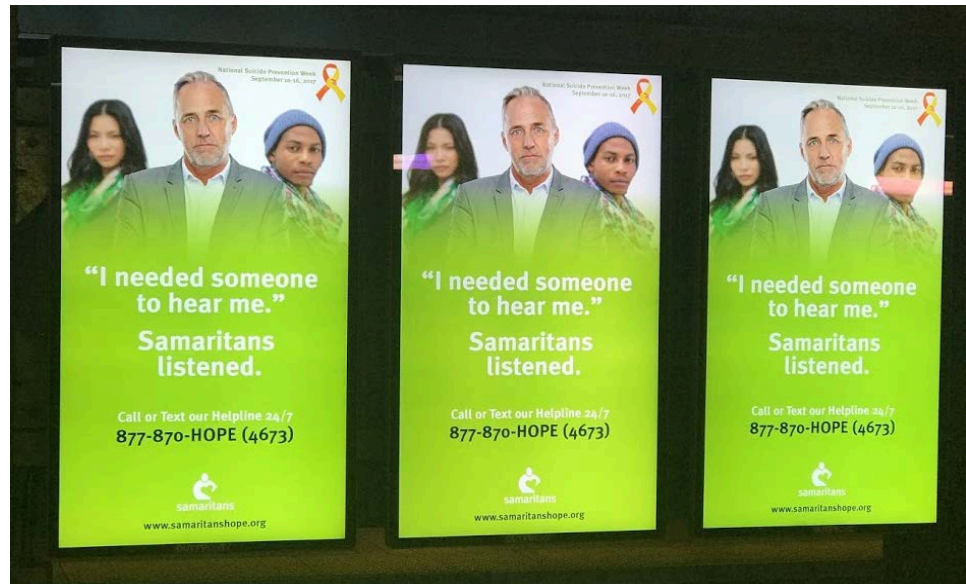
- Also considering how to message a lack of lethality – unclear how, but if they can tell people that you may not die that could be effective in mitigating rail suicide.
 - Brian mentioned that the Montreal metro had changed their signage to focus on injury and not death because of this issue.

United States (US)

The US program is largely based around six major areas – some of which have been more active than others over the past 9 months, though all of which are still active.

- *Media Reporting of Rail Suicide Incidents*: This research area is an effort to coordinate with rail carriers and media representatives to better understand the impact of the media on rail suicide and develop a strategy to encourage more responsible reporting practices.
 - [Report published](#) earlier this year about online media reporting of rail fatalities in the US.
 - Volpe is now coordinating a group of rail stakeholders in the Northeast – the goal of which is to identify a strategy to encourage responsible reporting of rail trespass and suicide incidents. We have had two meetings to-date, in June and November. This group has identified four strategies that we are now pursuing:
 - Recommendations document for rail communications staff to use when talking to the media;
 - Recommendations document for media members, to be distributed by rail communications staff when appropriate;
 - Documentation of existing public announcement information and evidence of public response; and
 - Strategy for a workshop or education opportunities to work with and educate young reporters.
 - Working with rail safety organization Operation Lifesaver, via a recently established Task Force, to improve how safety information is presented. This includes an effort to de-emphasize lethality in any public discussions of rail safety or trespass prevention.
 - Volpe developed a Python-based program which is capable of scraping and/or actively monitoring Twitter for any Tweet that is related to a rail incident. The program uses neural network based machine learning to self-improve and is now 97% accurate in assessing if a Tweet is about a rail incident. Volpe is now working towards adding new categories (e.g., suicide vs. trespass vs. crossing or empathic vs. critical) which the program will be able to categorize. The hope is that this will provide some level of understanding of the baseline levels of activity on social media platforms following a rail suicide and may also help identify areas at increased risk for contagion based on online conversation level.
- *Countermeasure Development and Pilot Testing*: The goal of this research area is to work directly with rail carriers to: identify potential countermeasures which may help a particular carrier reduce suicide attempts on their system; assist or provide guidance for implementation; and track the effectiveness of any implemented countermeasures.
 - MBTA (Boston-area transit and commuter rail system) collaboration:

- The first countermeasure pilot launched was a collaboration between the MBTA and the Samaritans suicide prevention charity. Signage was put up in stations in January 2016. Additionally, occasional announcements were made in stations with an accompanying scroll with Samaritans information. An update to the signage was made in 2017 (seen below) and continues to be displayed on digital signs in stations throughout the system.



- Volpe is now participating in a task force aimed to understand additional actions which may be taken to reduce rail fatalities from trespass and suicide. No specific actions have been confirmed, but several have been discussed, including:
 - Training of staff in Question, Persuade, Refer (QPR) – to identify and effectively intervene with individuals exhibiting warning signs of suicide.
 - Additional signage – potentially signage along the ROW with a phone number to MBTA police and a location tag to help expedite police and dispatch response.
 - Increased surveillance in known problem areas.
 - Increased reporting of non-incident trespass witnessed by train crews (to improve identification of trespass hotspots).
 - Improved coordination with the local media (see above).
- Other Carriers in the US:
 - While no direct collaboration with Volpe, the following implementations are also underway and Volpe is working with these carriers to track progress:
 - Metra (Chicago): Training staff in QPR – had 40 successful interventions in the first year of staff training. Metra also held a conference for all local suicide intervention folks and rail staff to coordinate on a plan to implement signage across the entire system.
 - City of Palo Alto (and Caltrain): After two suicide clusters in 2009 and 2015 the city of Palo Alto had stationed security personnel at several crossings in

Palo Alto. Earlier this year they launched a video surveillance effort which can detect trespass and alert police. No details of impact yet.

- *Determination of Intent*: This work is still ongoing – examining detailed data after an incident takes place to make an independent determination of probable intent. The data available, thus far, has shown that official determinations are often inconsistent with the data available in police reports, and the amount of detailed data available is variable.
- *GIS Mapping*: While initially envisioned as a nationwide map of rail suicide and trespass incidents which could help identify hotspots, this effort has largely been used on a more localized level. Nationwide mapping proved difficult with the expansive US rail network. However, the mapping of individual rail carrier incidents or certain local areas has proven quite helpful. FRA and Volpe are now using Tableau to conduct some of the most basic mapping.
- *Definitions Document*: This effort is also ongoing. The goal is to attempt to capture how terms surrounding trespass and suicide are used around the world in an effort to more effectively compare research and findings.
- Other areas of interest:
 - Website: Volpe recently launched a website (www.volpe.dot.gov/rail-suicide-prevention) aimed to provide an overview of the work underway at Volpe (currently all funded by the FRA). The notes from GRASP meetings will be posted on this site with approval from those attending this meeting.
 - The US Congress recently requested, via legislation, that the FRA develop a national strategy to prevention trespasser accidents. This mandate includes addressing suicides. The FRA, with assistance from Volpe, is working to develop this strategy, which must include milestones, timelines, and metrics to define success. It is likely that this report will largely determine the direction that research will take in the coming years.
 - Volpe is still working with the Center for Disease Control (CDC) on an effort to pull rail suicide incidents out of their [National Violent Death Reporting System \(NVDRS\)](#). This database, which now includes data from 40 states, provides detailed information about decedents of suicide, homicide, and other violent means of death. The data collected include information about substance abuse, mental health history, other histories of violence and other factors. The goal is to publish this paper in a journal at some point in 2018.
 - The opioid epidemic is starting to shine a light on suicide a bit more. This may provide an opportunity to use this spotlight to get more buy-in about suicide. Volpe is talking with various state health departments to try to identify any association between the opioid uptick and suicide on the rail systems.
 - Suicides among those aged 75 and over rate has gone down – but adults between 45 and 64 has gone up, and children 10-14 years of age have also gone up (mainly female). CDC reported this increase, indicating that the US is likely to take note and try to understand that trend.

General Thoughts/Questions from the Group

- Ian Stevens (UK) – Interested in learning more about platform screen doors. Any advice for retro-fitting stations with this type of technology or for platforms with a variety of rolling stock which may come through?
 - Group will follow up on this to try to identify any best practices. Most knowledge may be in Japan where these are more common.
- Andy Martin (US) – FRA are new to collecting data on suicide now – interested in knowing what kind of data (fields and variables) they are using to collect information about trespass and suicide events and the person involved.
 - Group will follow up and provide some information about what data they collect and how it is collected.
- Danielle Hiltunen (US) – US will be following up with members on this call to try to systematically gather a bit more information on numbers and countermeasures. This will help to provide the group with some consolidated information about what other countries data look like as well as what they are actively doing.
- Ann Doucette (US) -- The Durkheim project out of Dartmouth is an effort to monitor opt-in veterans' social media activity for warning signs of suicide. It makes linguistic predictions using machine learning, AI, and linguistics to build predictive models on suicidality. This may be helpful for understanding what social media conversation around this topic looks like.