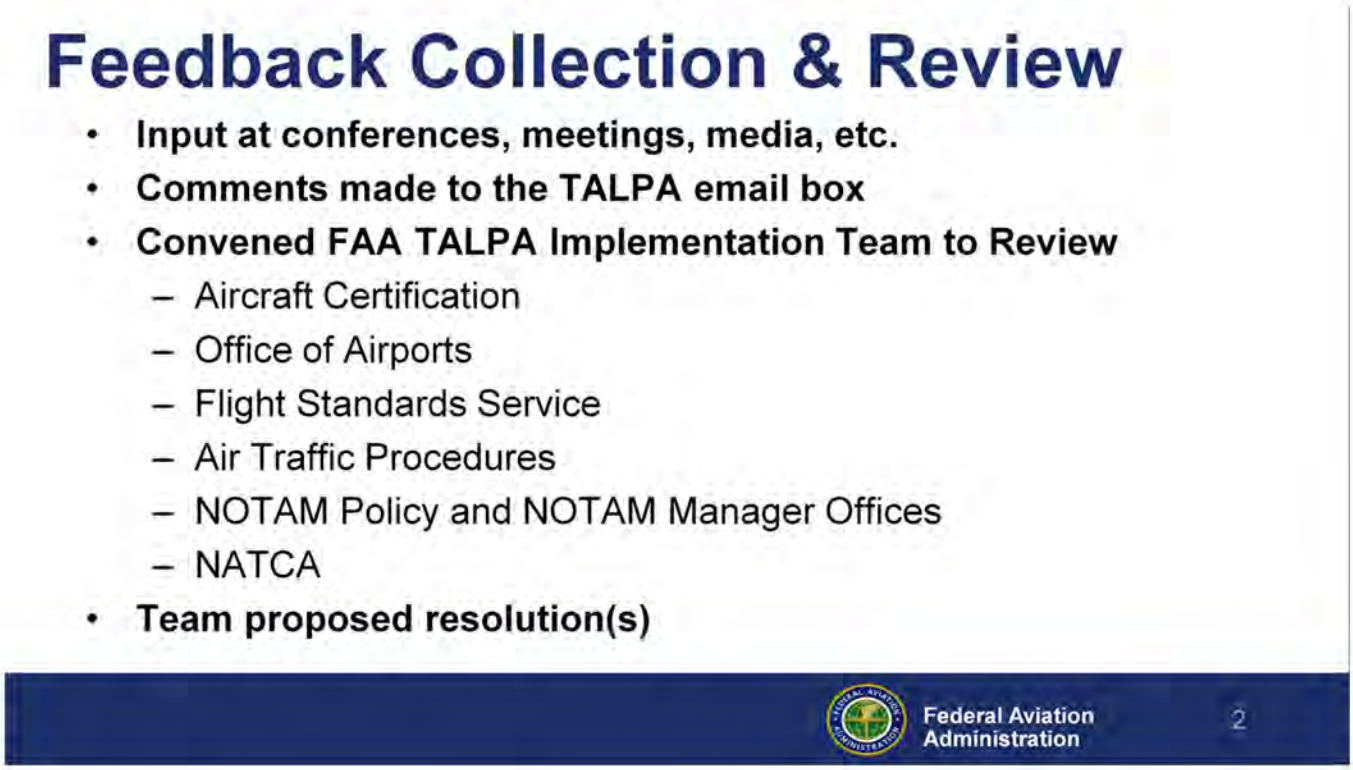
Stakeholders Feedback Review

Presented to: TALPA Update Meeting

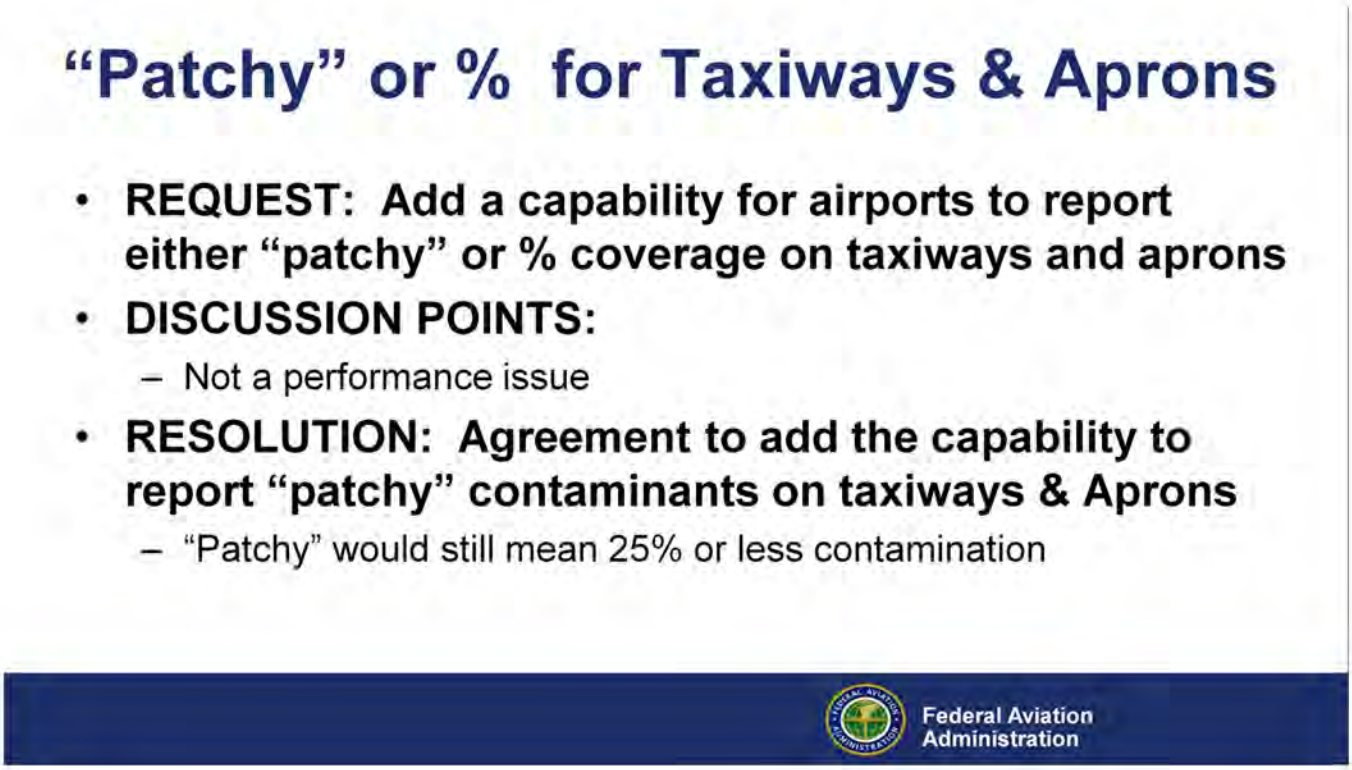
By: ARP, AFS, ATO, AIR, NATCA

Date: July 11, 2017



Facilitator

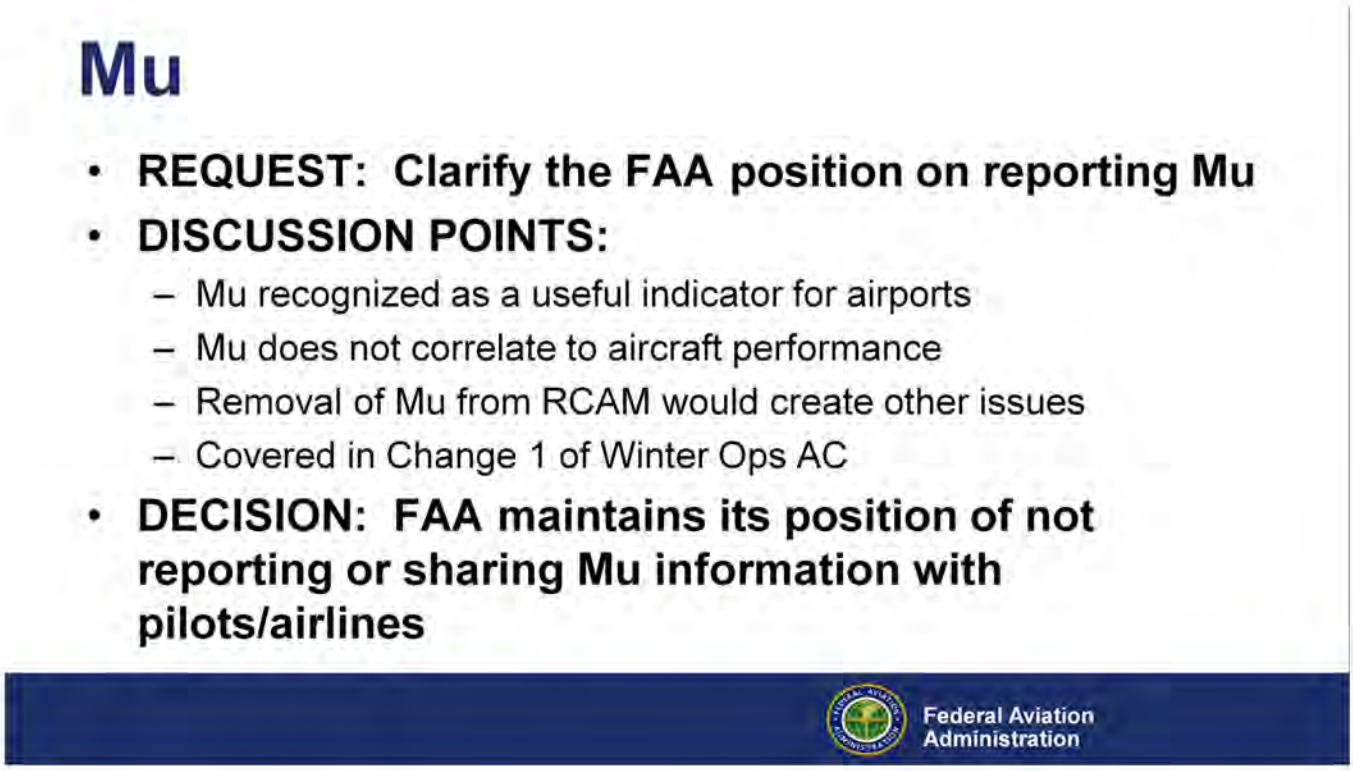
- Feedback that we've gotten from industry and all the different users
    - Frame the question or comment related to the Rollout
    - Provide disposition as to where we are going or where we're thinking of going with respect to those comments
    - Representatives from each FAA Line of Business are here
    - We invite any addition exchange on these subjects
- For review of the feedback, the same group of people from the Rollout Team and some additional folks were brought together to review the feedback, and to see the impact to each LOB and it's stakeholders relative to the suggested change
- Some comments were received from one individual, and sometimes similar comments were received from many individuals or organizations



Facilitator

- Background: During the ARC there was feedback from aircraft operators that they didn't really need a lot of information on the taxiway side of things; what was key to them was what kind of contaminant is out there, and "Can I or can I not" taxi out there. That was the level of detail they were looking for.
- We understand from an airport operators perspective there is an interest in providing as much information as possible
- We are trying to balance how much detail we need to provide on a taxiway scenario, since some airports have 50-80 different taxiways, while other airports have only 2 or 3
- Considering bringing the "patchy" terminology back for taxiways and aprons, essentially low-speed environment reporting to help facilitate painting that picture a little better
- From an aircraft standpoint there's no performance issue; it's knowing whether the taxiway is available and safe to use; if not, the taxiway should be closed. This relates back to the 14 CFR Part 139 and an airport's safety requirements to maintain surfaces in a safe operating condition
- % reporting for taxiways is not functional because of the geometry – there are very long taxiways, there are taxiways that curve and turn, so % would not allow an airport operator to functionally describe an area particularly when you add connector taxiways. This would not paint a good picture for the pilot.

- Simplicity is our goal; we are definitely considering adding this (reporting patchy on Taxiways) to the queue for NOTAM system enhancements



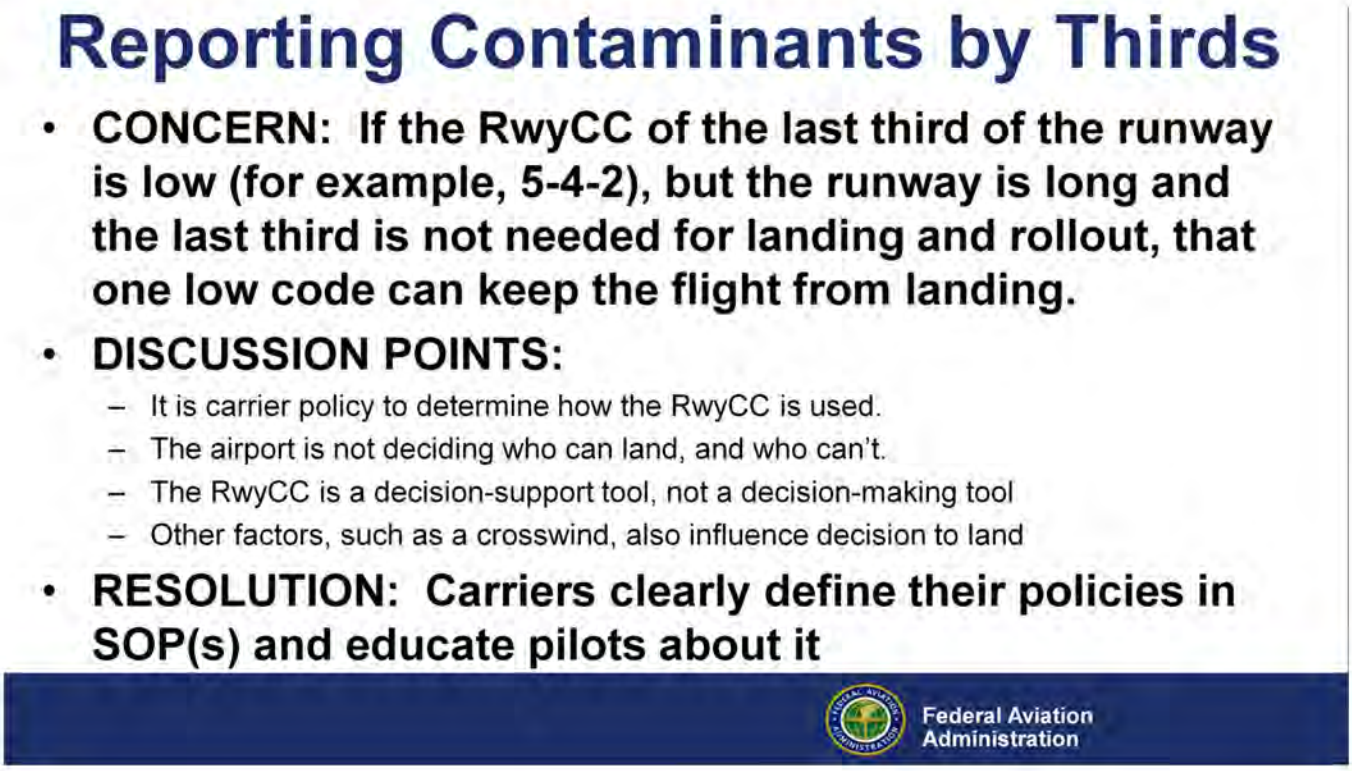
Facilitator

- We've been asked to allow Mu to be shared with airlines in addition to FICON information.
- FAA guidance says not to report Mu to pilots;
- Background: Before the RCAM came into play, during the ARC, the FAA wanted to move away from reporting Mu entirely; all the aircraft operators were on board with doing that; they felt Mu was unreliable and too variable and subjective. The Office of Airports, in coordination with AFS and the rest of the ARC, fought for keeping Mu in play until we found something to replace it with; here enters the RCAM and Runway Condition Codes;
- There are a lot of issues with Mu.
    - It's subjective
    - There is a lot of variability
    - The Mu value is not a finite number
    - Mu was incorrectly being used as the sole indicator for making decisions
    - Mu does not correlate with aircraft performance. For example, 15 minutes before Southwest Airlines overrun accident in Chicago, the airport had Mu values in the 40's but aircraft data determined a braking deceleration value of .16, although these values do not correlate, the aircraft system was indicating a "Poor" braking environment versus what

the MU had indicated

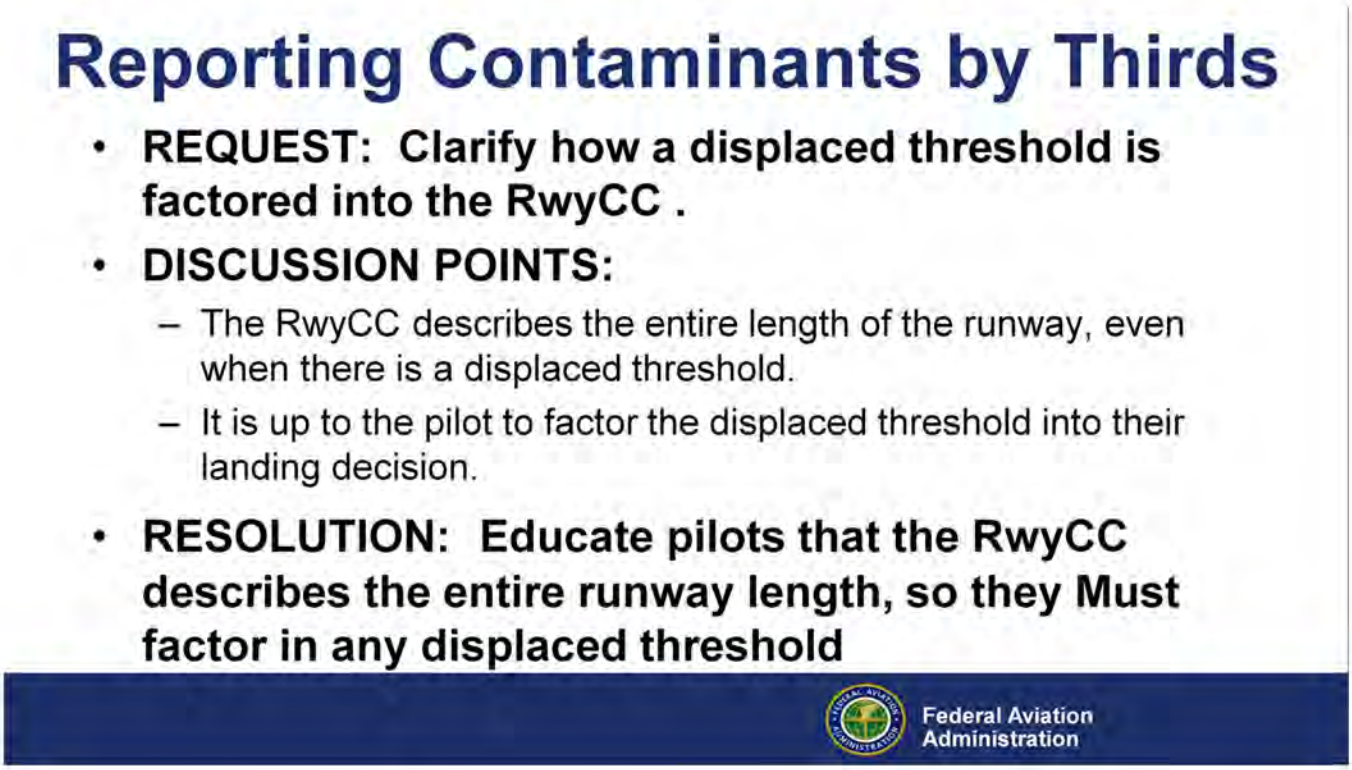
    - Friction measuring devices weren't initially intended for use in a winter environment – it was intended for pavement maintenance.

- We want to walk away from Mu as something we rely on as the sole basis for decisions.
- There is still value in having a device, to be able to see which direction the numbers are trending.
- Bottom Line: We do not want Mu to be disseminated, because the sole Mu value is providing misinformation. The RCAM codes are more objective and mean a lot more than a friction value. Codes relate to what contaminants are out there and to a conservative assessment of anticipated braking experience, and are based on aircraft manufacturer data.



Facilitator

- It is the responsibility of the air carriers to illustrated in their operations manual on how RwyCC will be utilized in determining landing decisions
- The reporting of RwyCC is similar to reporting MU values of the past, they are decision support tool for pilots to use to make informed decisions for landing
- Air carriers operations manuals should define the parameters, such as crosswind, weight and balance, runway length; etc for making informed decisions for landing
- The FAA's Flight Standards office will continue to perform outreach with air carriers and their industry groups to ensure awareness as one part of the resolution
- With the exception of a NIL condition which cannot be mitigated, the RCAM does not restrict aircraft operations. Operational restrictions are based on aircraft operator policies and procedures. The RwyCCs are simply an additional variable in the decision making process.



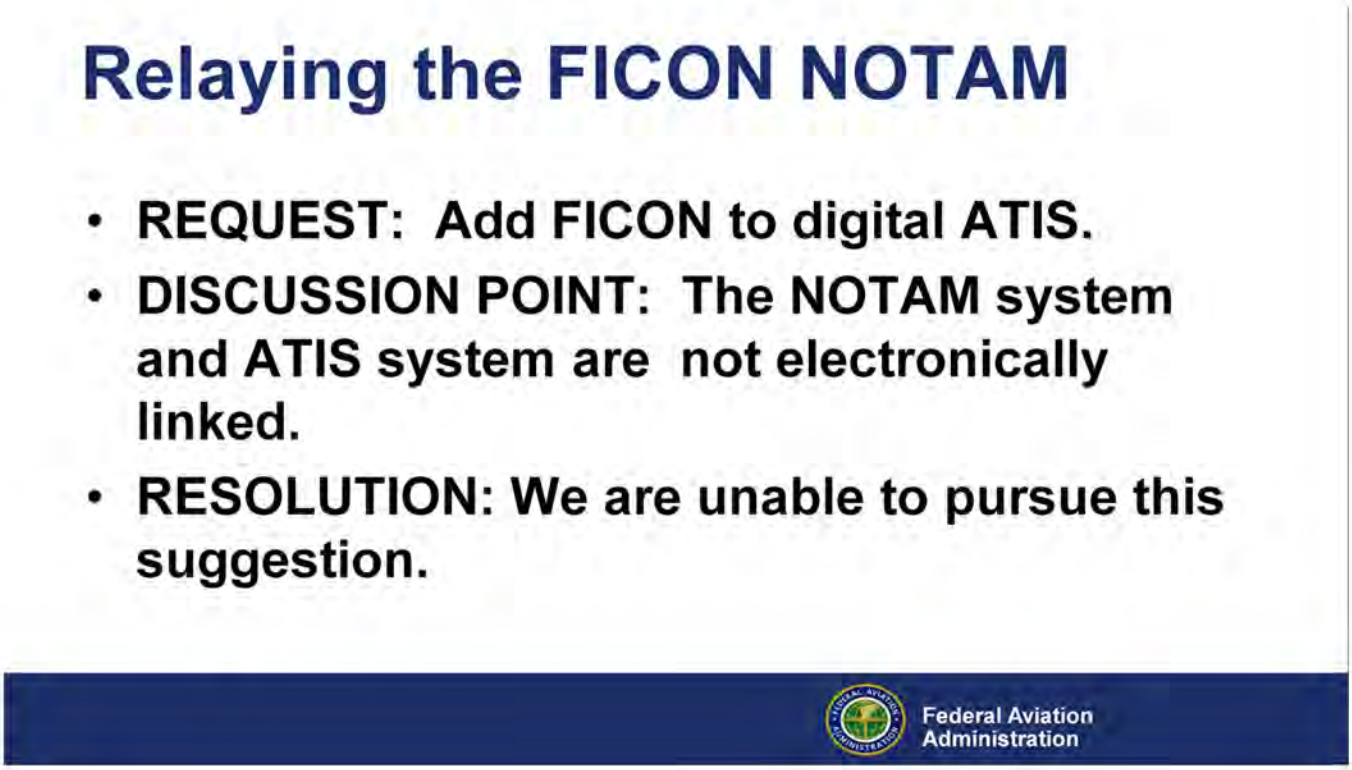
Facilitator

- This is a question we've gotten from both sides: airport operators wanted to know if they should be taking displaced thresholds into consideration when they are reporting; airplane operators wanted to know how to interpret codes when there was a displaced threshold.
- The approach is similar to what we used to do with Mu values and friction tests - we would test the whole runway, break it into thirds, and the Mu value was reported in thirds. Similarly the runway condition code value is for the entire "usable" length of the runway; if you have a displaced threshold, it's all the way to the threshold. Remember, although a displacement may not be available for landing it may be still available for take-off use. Which is why the codes apply to all of the "usable" length of the runway.
- If you have an area that is an overrun we are not doing assessments on that portion because that's not part of a normal operating environment.
- From an aircraft operator's side, if you're coming in and there's a displacement that affects the length of the runway, then you will adjust your performance, as you would normally, so really we haven't changed how this process works.

TALPA Team Member

- For flight planning purposes pilots should be aware that the airports assess runway end to runway end. For example, 22R at JFK is 12,000 feet long, but the displaced threshold is almost 3,500 feet long; so if you've got a RwyCC of 5/3/2,

then the majority of the first third is unavailable for landing and therefore the pavement available (remaining 8500' in this example) is a condition code of 3 (midpoint), and 2 (roll-out). You've got to make that calculation and determination on your own; that's not something the airport will do. Conversely, for take-off, the first 3,500 feet would be available for use and therefore the RwyCC of 5 would apply.



Facilitator

- From an airports standards standpoint, we are concerned that information will not be timely if the ATIS is going to be updated once an hour. If an airport is updating the conditions more frequently than that, Air Traffic might not have the ability to do keep up with the pace on the ATIS. That's why currently you only get Runway Condition Codes on ATIS.
- If we were to put a full-blown FICON report on ATIS, and that's not even factoring in multiple runway scenarios at larger airports, that would be very lengthy, and then the issue would be getting an update to the pilot on the whole FICON if it changed from the time he pushed back to the time he was at the runway end for departure or on arrival.

TALPA Team Member

- When we first started out, Air Traffic was going to put the FICON's out on the ATIS. If you had multiple runways, or one runway, with multiple contaminants, that ATIS would be very lengthy. Air Traffic knows from the pilot side, our ATIS' are too long already, so you'd be listening to the "forever ATIS". So Air Traffic got down to just putting the Runway Condition Codes on ATIS. If you need the FICON, workload permitting, Air Traffic will give it to you. If they don't have time, you will have to get it from your dispatcher.

Facilitator

- The airport operator is the one that will be responsible for providing the most

updated information, so the NOTAM system is where you want to be going for information. Then ATC will be providing a service to fill that gap from the time you pulled the last report and you're heading out to the runway with the Runway Condition Code. If nothing else, a changed RwyCC will be an indication that something has changed, so if I had a 5/5/5, I taxi out and now I have a 3/3/3, "What is the impact to me?" Or if you plan an arrival with better numbers and you receive lower ones, that will be something you want to consider. An aircraft operator should already know their go or no-go RwyCC.

Audience

- As an FYI to the ATC folks, the Runway Condition Code is not enough information for takeoff. If it's a loose contaminant, we need to know the contaminant type and depth in order to do our takeoff performance assessment.

Facilitator

- We've gotten that feedback from some airlines. The intent is to prompt the aircraft operator that something has changed and they now need to get whatever additional information they need.

TALPA Team Member

- Air Traffic is working on this right now because Air Traffic was told that the runway condition codes were not for takeoff purposes. That means that we can't give every aircraft the FICON NOTAM. That's where the aircraft are going to have to look – if you're taxiing out and the last NOTAM you got was a 5/3/3 and now all of a sudden it's a 2/3/3, something's changed. Go to dispatch or wherever you get your NOTAMs and see what's new. As a last resort, if you've got to have it, and we can read it, we will. At busier airports, it's probably not going to happen. But we will do our best because it is in the .65 that SOP is workload permitting.

Audience

- What are we doing to fill the gap of information where the tower is closed but the airport is open?

Facilitator

- There is no ability to fill the gap there. You're operating off of the most current NOTAM information that you can get. This is the same scenario as at an uncontrolled field.

Audience

- When runway condition codes are published on a digital ATIS, if the runway is downgraded is a new ATIS always issued with an updated Runway Condition Code?

Facilitator

- When a towered airport issues a FICON, with or without codes, part of the coordination is letting the tower know. Some airports push directly to a tower electronically, some airports verbally communicate it, some airports fax it - but there is coordination between those two parties. When a NOTAM gets issued and updated, depending on how many controllers are available, whatever the lag time is for them to cut a new ATIS, but at a minimum they will be able to give it verbally to the next aircraft.

Audience

- The one or two times we did have a bad eastern storm, the same situation comes up. I'm at the gate, and I need to get timely information for departure. I'm trying to get a hold of dispatch and the dispatchers are trying to call the airport. It sounds simple while we're sitting here, but when your dispatcher is doing a lot of airplanes and you have one of these bad winter storms come in and they're all over the east coast, in the future, it seems like this is an opportunity to improve the system just like we've done for landing.
- I know TALPA didn't focus on this. We said our process was fine for takeoff, but I think in the process of turning this all on and doing it, and as a pilot actually out there trying to function with this, it's created a problem in the system. The pilots now expect Runway Condition Codes, yet while I'm sitting at the gate getting ready to depart, that is basically worthless information to me, other than I know I can backwards calculate the runway condition codes based on what I see.
- But I don't think that's where we want to go as an industry. By improving what we've done with the RCAM process for landing, it seems that timely NOTAM information, what we're doing and how we drive the new NOTAM format, and how we put that information in there.
- I agree, I don't like reading long ATIS' and ACARS, but when I'm sitting there and there's snow all over the runway, and I'm getting ready to take off, I actually am looking for that information. I know you can say some airports have a lot of runways, but we're probably only taking off from a couple of them on those days. I'm asking industry to stop and think about how the pilot has to deal with it that day, and what he's trying to do, because pilots are still trying to figure this out and put it in their box and figure out what my takeoff performance is. Why make it more complicated, get on the phone, try to call, try to get it sent to the airplane.

Facilitator

- That's a very valid point. But, right now, the NOTAM system is the fastest and most efficient way to disseminate that information. It's instantaneous, so you're right, now it's a challenge for you to get that information, and the more we add to it, the longer that NOTAM string goes. Part of it is that you should know what code you need to depart, so if you need a 3 and you left the gate with a 5/3/4, and something happens, then you've got to recalculate.

Audience

- With NextGen systems coming out now, why can't we put the FICON data on NextGen as a digital broadcast? We could let the airport update that and tap in with NextGen. It's supposed to be a digital NOTAM feed. Why not have it so that when you get your ATIS clearance it comes out as a digital printout with your FICON. This way you have the time in the cockpit to read it, and airport operators can update it as we get our assessments done, instead of trying to sit there and relay, and try to get back to the office with a phone call, to try to get it to dispatch. If we're out there doing snow ops, we can't get back to the office to answer a phone call from dispatch.

Facilitator

- We will take that away. The NOTAM Manager is a digital feed.

Audience

- I agree that the Runway Condition Code is not enough to depart, and going into this year, we addressed that by automatically ingesting the FICON into our airport database which is accessible to the crews via ACARS, so as the FICON is updated, they just request the it via ACARS. It's an internal warehouse data source that we have that just ingests all that type of information, and since it's an operational database, any system can tap into it, and draw that data out, and in this case, we use ACARS. It is a solution you can do internally without the help of FAA. Anybody can do it themselves.

Facilitator

- I know that back before we started the RCAM Rollout, there had been some work done to the NOTAM system to allow people to pull raw data out and export it into whatever their dispatch programs are. So I know that capability is out there. Going back to the airport operator's side, with the NOTAM system you hit the button and a second later the NOTAM is live, so it's pretty instantaneous. The problem is now aircraft operators have to figure out the fastest and most productive way to get it in the cockpit.

Audience

- Would company policy allow pilots sitting at the gate ready to go to check Pilot Web to make sure they have current conditions? Would that be an acceptable source?

TALPA Team Member

- Pilot Web is going to become NOTAM Search, but to address the previous comment, one of the things we are doing at the FAA with AIM Segment 2, and Release 3 of the FMS is digitize, and the raw data that was mentioned will be available to anyone on SWIM. They can take that data and fashion it in to what they want.

Audience

- To address a previous comment, it is correct that when we were working the TALPA ARC we said our takeoff performance is pretty much already known, so let's concentrate on landing. As a result of that, we really didn't develop a takeoff RCAM. My airline now has a takeoff RCAM. We've got both the takeoff and landing RCAM that addresses the differences of takeoff if anybody wants to see it.

Audience

- There's an assumption that the Runway Condition Code is published on the ATIS. I have found that to be inconsistent. So, I don't believe there's a requirement for ATC to add it to the ATIS. A couple airports do include it, but many airports don't include it at all.

TALPA Team Member

- It is a requirement in Air Traffic's 7110.65, section 2-9-3, under ATIS content. Runway Condition Codes are required to be placed on the ATIS, and it's also in other parts of Chapter 3, as well for the terminal section. If it's done inconsistently, that's probably more a performance issue, because it's definitely a requirement. We just need to make sure they

are doing it.

TALPA Team Member

- If there is a FICON with a Runway Condition Code in it, then that's a performance issue.

Audience

- I've been monitoring that at about 150 different airports, so I've got all kinds of records of when a FICON has come out, when it's been reported, when the ATIS wasn't. It's been extremely difficult as an operator to keep track of this during the rollout.

TALPA Team Member

- Were they doing it verbally, at least? If they can get it done verbally, it's no different than now, issuing RVR, which is not on the ATIS, but you issue it to every arrival and departure because it is so dynamic. I don't know if this was a quickly changing situation where they didn't have time to keep updating the ATIS so they were going to issue it verbally to give you the information.

Audience

- That could be, but the assumption is that it is always on the ATIS, and there are some airports I've never seen it on an ATIS at that airport. So, it is inconsistent throughout the system. I don't know if something was verbally said – all I've got is the documented digital data.

TALPA Team Member

- We have recognized the inconsistency with the changes over the last winter. We've worked through those and recognized some clarity issues in our own [ATC] handbook. We made some editorial changes, but with that, a reminder is going out by the end of this month, to all ATC facilities to highlight that very requirement - that codes are required on the ATIS. So we have recognized the inconsistency and we are trying to fix that.

Facilitator

- It's also possible that you could have an airport provide two or three updates in an hour, but maybe you only hear one on the ATIS. Where you have a FICON on the ATIS, and the fourth time it's changed it gets updated on the ATIS again. And, as was said, they are probably mentioning Codes verbally too. We also have reports of some towers reporting a full-blown FICON on the ATIS. Things are slow so somebody adds the codes and reads the whole FICON. Great if they can do it, but the likelihood at most facilities, especially if they are busy, is not high.
- Back to the original issue – the most current information is always going to be in the NOTAM system, but there's that small window where AT catches a change before you push back or plan your landing. That's the gap ATC can fill, if you have a tower.

Audience

- Is it required in the ATIS to give any condition besides the Runway Condition Code? I have experienced some airports that just give the code and some give the code with description.

Facilitator

- Reporting of the Runway Condition Code is the minimum requirement. There isn't a prohibition to adding additional information. You can also request additional information from the tower.

Audience

- That leads to confusion among our pilots, because now they got it at one airport, they're expecting to see it at the next airport, but it doesn't show up, so maybe they're thinking that it's dry.

Facilitator

- That's the standardization that we're always trying to achieve. A lot of the RCAM process focus has been on standardization of the way we do things. Maybe in their guidance to aircraft operators AFS can capture that at a minimum you should be getting codes. I don't think more information is bad, but it will beg the question of why it's not at the other airports if we don't have enough guidance out there.

TALPA Team Member

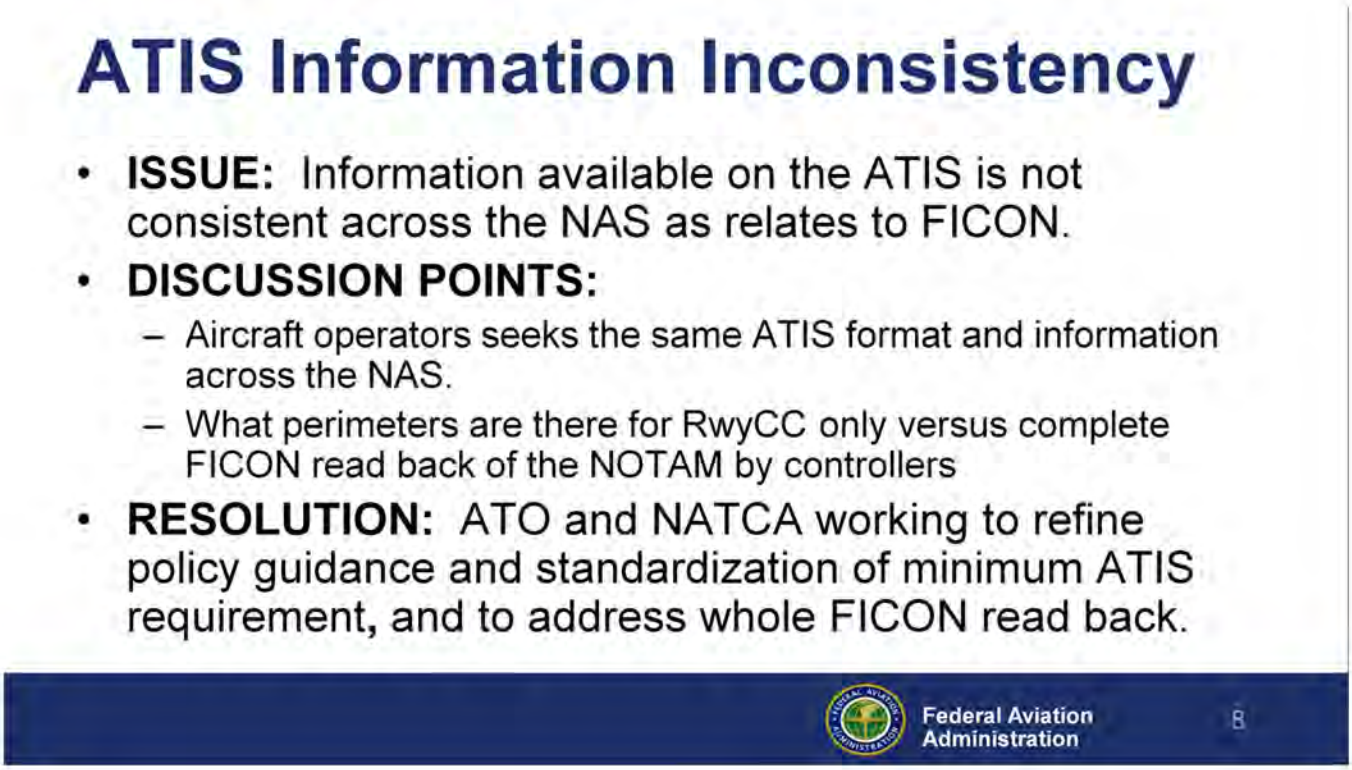
- I'd like to see a show of hands - who would prefer to see only the Runway Condition Code, even if there is time to put on the FICON, for the sake of consistency? Do we want to put policy out there that says don't put the FICON on there at all?

Audience

- If it's not consistent, then when we don't get the information, we assume that it's not a variable, and that's not necessarily the case.

Facilitator

- We want to be sure of what we're asking for, because you're asking not to receive additional information that could be available to you. The important piece is that perhaps we establish what the minimum requirement is, and then everything above that is extra.



Facilitator

- This is a specific ATO issue that they are well aware of and is being addressed with the facilities to achieve some standardization
- The short training period to educate controller across the NAS, during the TALPA implementation period, contributed to some of the inconsistency in application of what should or should not be placed on the ATIS, or broadcast to aircraft operators

TALPA Team Member

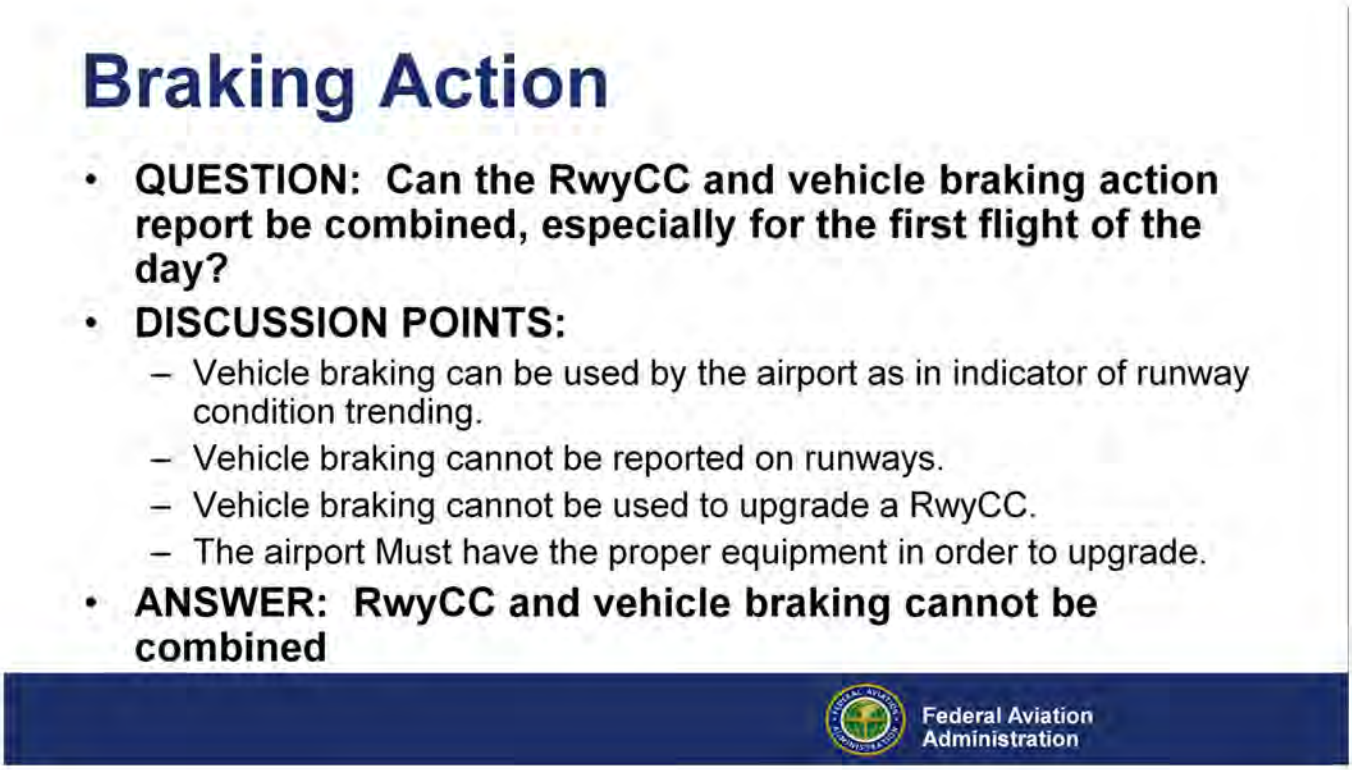
- Several facilities voiced concerns about training on what should be placed on the ATIS and what responsibility controller had in informing aircraft operators of FICON
- In the lead up to TALPA implementation, the awareness was for controllers to just substitute RwyCCs for the old MU values, and that was the basis of what would be available on the ATIS
- Depending on the facility and their activity level, there were cases where some facilities were more accommodating than other in providing more than just the RwyCC
- During slow traffic periods and time permitting, some controllers may have provided more information that just the RwyCC, which was similar to what some

facilities were do pre-TALPA

- The way ahead for ATO is to revisit some of the training and to ensure information and instructions for applying rules that govern the ATIS is consistent in all policy guidance documents

Facilitator.

- Our purpose is to discuss it openly with stakeholders who do have a concern, and to discuss any potential change or fix going forward as this TALPA process continues to take hold across the NAS



Facilitator

- We had a request to be able to report vehicle braking action
- Reporting vehicle braking action is in contrast to what we are trying to do with the RCAM - vehicle braking, pilot reports, and Mu are all subjective information;
- Vehicle braking action may be a tool in an airport's toolbox, but we don't want to associate it with the RCAM, because the RCAM is meant to be objective and data-driven;
- Vehicle braking action doesn't translate to airplane performance

Audience

- There is a distinction between CFME measurements on frozen contaminants and CFME measurements on a merely wet surface.
- I understand FAA's position that on frozen contaminants you can't correlate CFME measurements and braking performance;
- Based on research of NASA and Tom Yeager, for wet the correlation is actually quite good, and certainly better than what is being assumed in some of the industry standards like the 25-109 Wet braking coefficients. Using the NASA method the correlation can be made,, but you have to go through a mathematical process, you can't just take the number direct.

TALPA Team Member

- I can't argue with the previous comment. It's something we are looking at in

various forums. Including the flight test harmonization working group and potentially future research. Looking at wet runway issues and friction vehicles etc.

Facilitator

- Even from a maintenance testing standpoint, to determine if runway pavement meets minimum friction levels, it's a wetted wheel test.

TALPA Team Member

- We do use Mu for Slippery When Wet scenarios and assessing pavement; it's not being reported, but it is directly affecting codes.
- If you conduct routine pavement maintenance on your runway, and you determine that you are below your minimum friction level, now you have to downgrade in a wet scenario

Audience

Vehicle braking action can help with assessment of non-runway surfaces

Facilitator

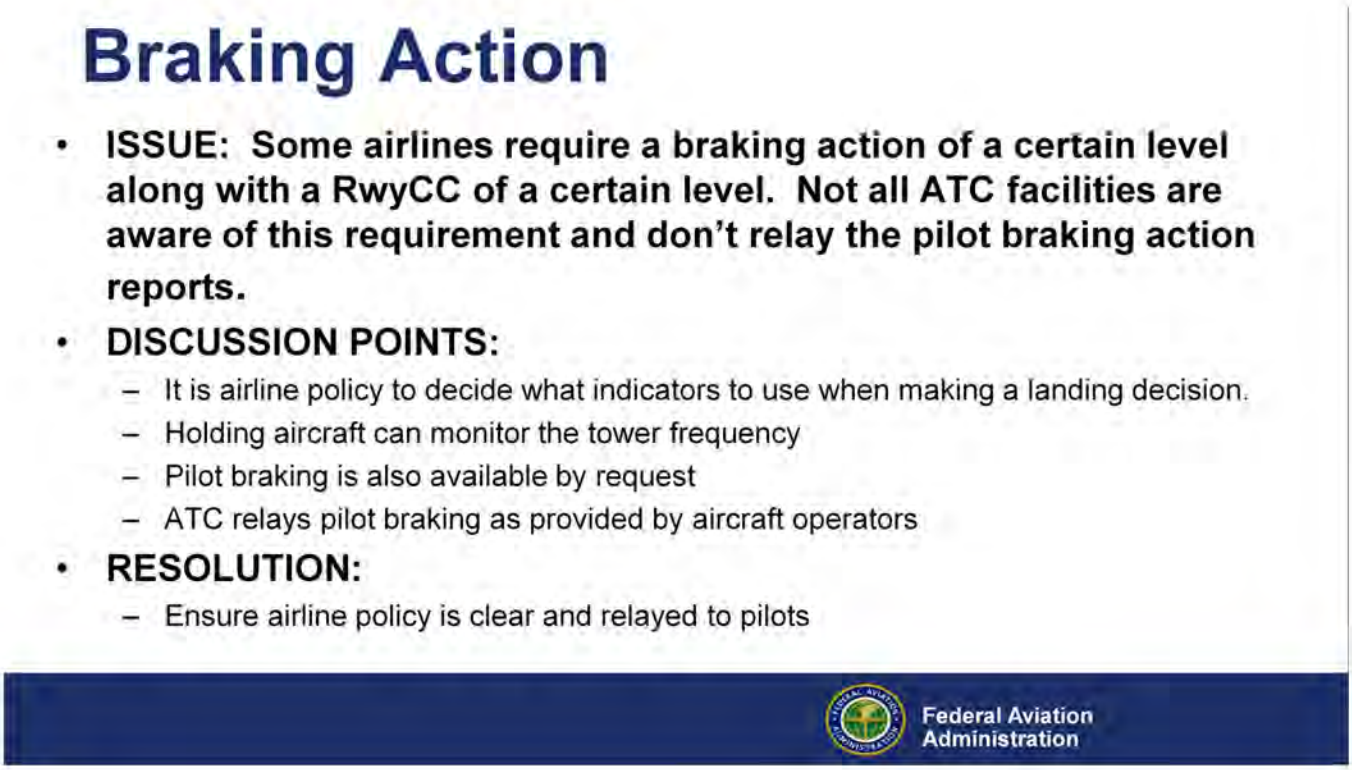
- There is no option to upgrade without a friction measuring device.
- Background: Initially, the intent was that codes would not be upgraded, ever. The upgrade came from the validation results in Alaska. There was data in certain scenarios that did support an upgrade. We established the criteria of Mu, in addition to all the other assessments the airport operator makes.
- There's no requirement for an airport to use a friction measuring device at an airport either. And if you have a decelerometer, that's a different piece of equipment

Webinar

- The Winter Ops AC still list conditions under which a CFME is not reliable. Do these parameters continue to exist?

Facilitator

- Yes, they are operational limitations. Along with the subjectivity that is inherent to CFME's, the subjectivity increases when you are operating outside the limits in the AC.



TALPA Team Member

- There are times when certain airplanes need a certain braking action to land, even though other airplanes can be landing freely based on the runway condition code. For example, MD11, DC-10 type aircraft don't stop as well as some of the other airplanes. It would help if towers are aware of the requirement and request braking action from similar airplanes where it's reasonable. Air Traffic doesn't have a good way to mandate anything on this.
- It's airline policy as to what indicators they will use when making a landing decision. TALPA is a decision supporting tool, not a decision-making tool. Work with ATC.

Audience

- When some aircraft are considered to have poor braking performance, do you think that is a wheel-braking issue, aerodynamic issue, or a combination of the two?

TALPA Team Member

- It's a speed issue. Some airplanes land a lot faster than others so they end up needing more runway. Also, different reverse thrust capabilities on different airplanes, etc.

Audience

- It's easier at our hub with a lot of our aircraft coming in, every second or third

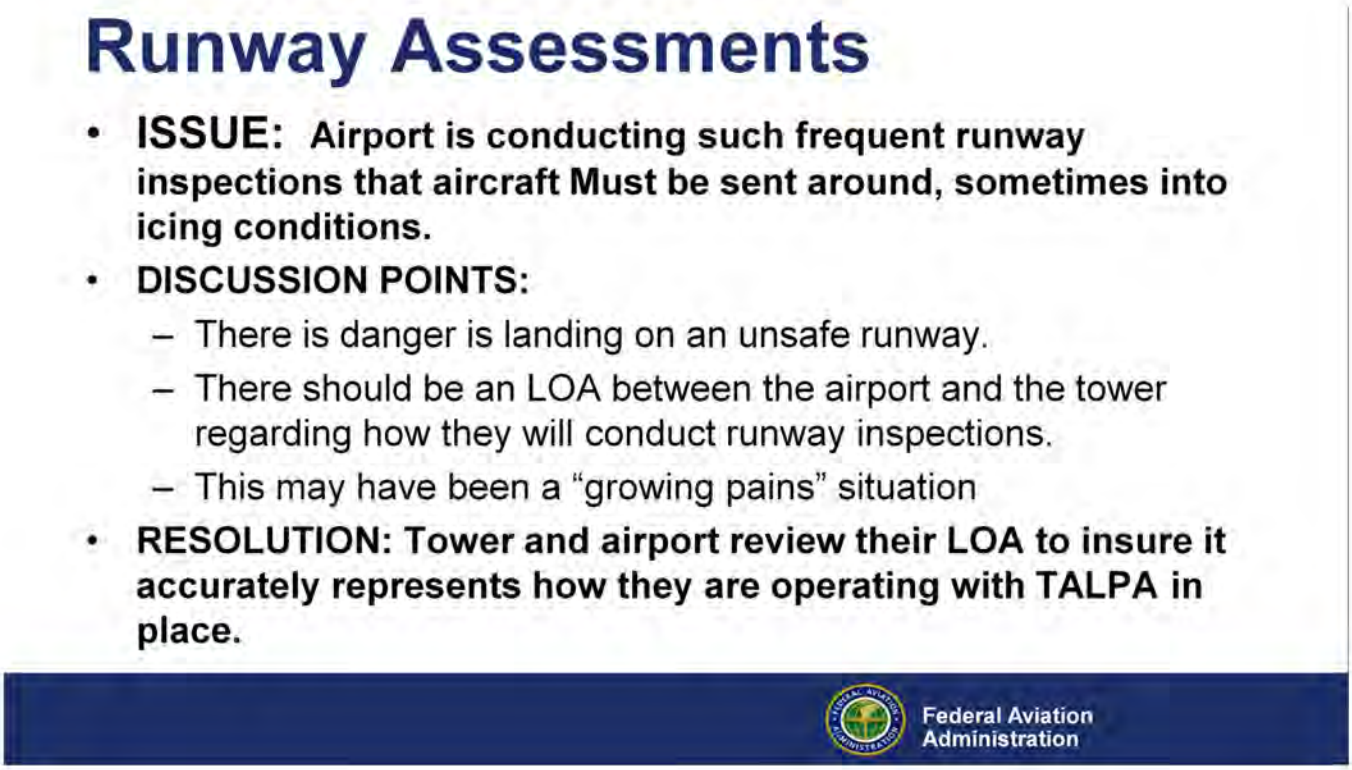
airplane is an MD11; our ATC guys are great; the issue is more likely to come up landing at other airports.

TALPA Team Member

- If this is a consistent problem, work with the tower. A phone call to the Facility in a staff support position, tell them MD11's need this information, can you let your people know? How old of a report is good for you? From what type of aircraft?

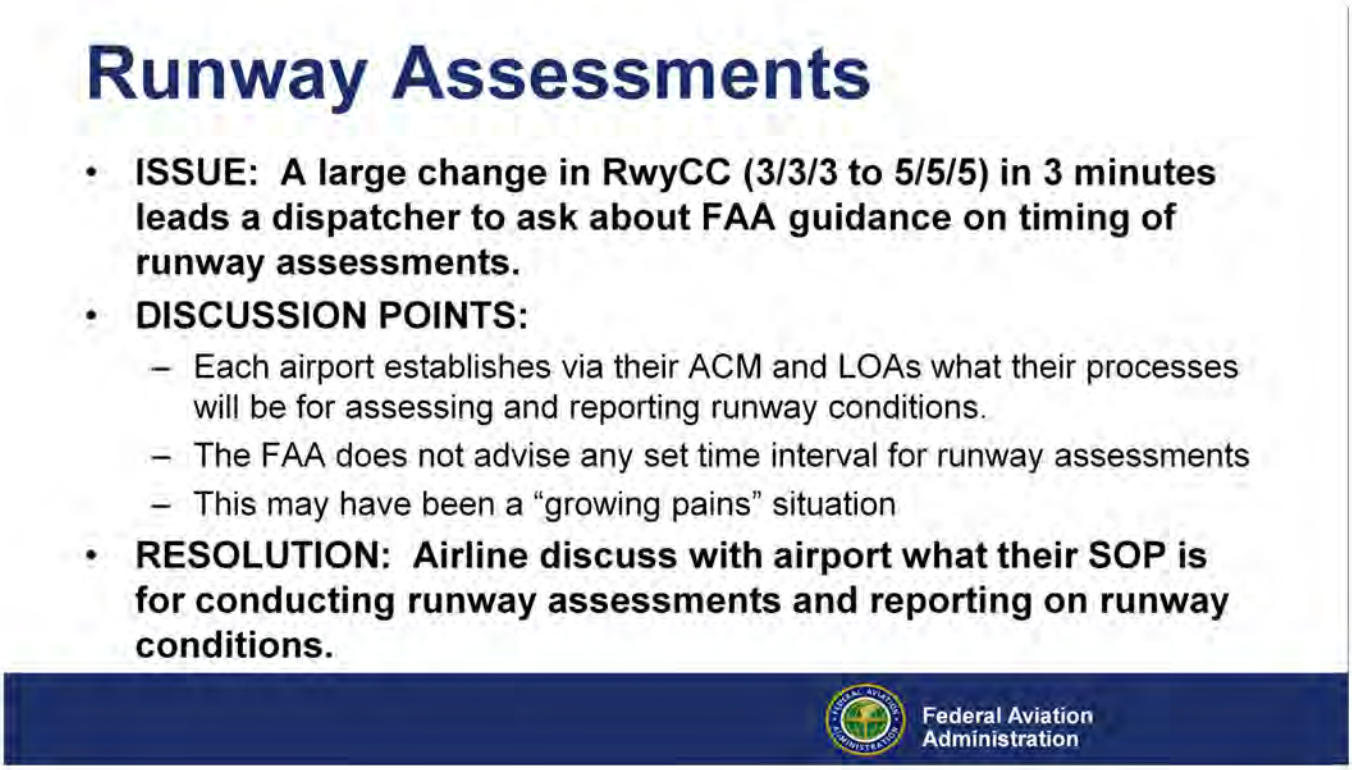
Audience

- For airport operators, it can become an issue. For example, one airline at our airport requires PIREPs or an updated assessment once every 60 minutes. If ATC doesn't get PIREPs and the 60 minute threshold is coming up, that means the airport has to get somebody out on that runway to do an assessment. This affects ATC if they're having a hard time creating a gap long enough to get somebody out there to do an assessment.



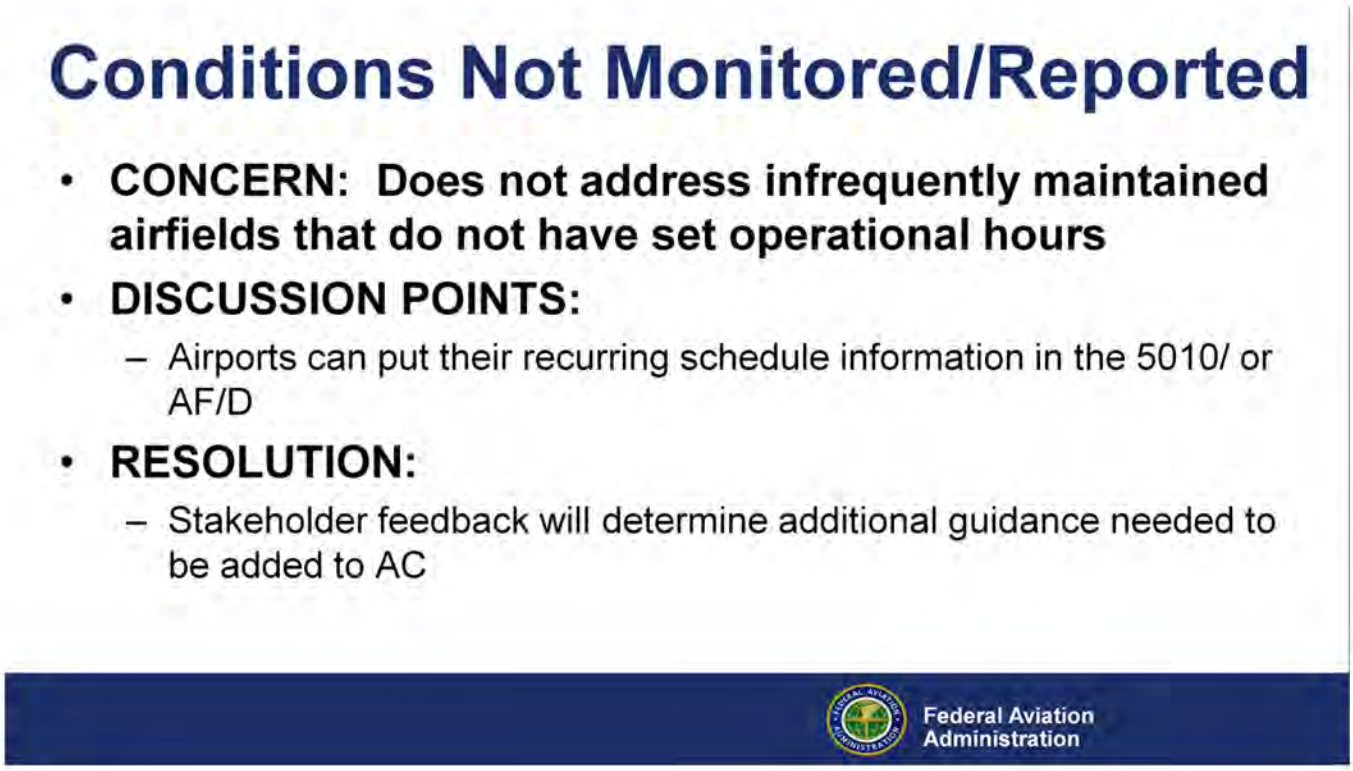
Facilitator

- This relates to concerns about aircraft being sent around because of runway inspections. Airport operators have also complained about not being able to get on the runway, and getting pushback from the tower. A lot of our airports have LOAs with ATC that outline the frequency and the need to do runway inspections. An LOA is a great place to capture those agreements, a handshake for the airport stakeholders so everybody is getting what they need and everybody understands what the capabilities and limitations are.
- There can be concerns about icing if you get sent around, but airport operators have a requirement to provide you with a safe operating environment on that runway. Sometimes that means sending a couple of aircraft around or holding somebody in the pattern, so the airport can get another runway inspection done. If it puts an aircraft in a safety critical scenario, the aircraft operator has the option to declare an emergency.
- A go-around is a controlled operation, putting someone in the pattern is a controlled scenario, having someone land on an unsafe runway and sliding off the end or the side, that is an uncontrolled scenario and a very unsafe situation.



Facilitator

- We don't dictate to an airport how often they have to do assessments. An airport operator will do assessments based on the available information - snowfall rates, forecast, and weather sensing equipment. Their main focus is to provide aircraft operators a safe operating environment - the airport doesn't want to impact traffic and capacity.
- This also speaks to the agreement between the airport and the stakeholders. If you need something specific, it's good to have a conversation at the local level and document it in an LOA.
- If you have an issue with an airport operator refusing to provide you information, let's have a conversation about it. Pull in the regional FAA reps, let's talk about what's reasonable, and why there might be a challenge or hurdle that's preventing somebody from providing you with information that you need.



Facilitator

- There was confusion between Conditions Not Monitored vs. Conditions Not Reported NOTAMs
    - Every airport handles the winter season differently; some bring in seasonal workers and change the airport's hours of operation
    - This typically doesn't affect air carriers, it is more of a GA scenario.
- Some of the information can be listed in the 5010 or Chart Supplement (formerly called AFD)
    - We've asked them to add the hours of operations into the 5010 if you have set hours you're working, regardless of winter events.
- Conditions Not Monitored should be used for:
    - Less than 24 hour period
    - Is a FICON
    - Has latest FICON appended to it
- Conditions Not Reported should be used for:
    - Longer than 24 hour period
    - Is an Aerodrome (AD) NOTAM
    - Includes the time window that the conditions will not be monitored.

- We attempted to clarify this in the AC, but we'd be happy to take a look at it to help further resolve issues.

Audience

- I humbly disagree that this doesn't affect air carriers.
    - There's a lot of information in the AFD that can be confusing as far as what hours the airport is operating versus the ARFF being there, versus if there is going to be staffing there,
        - Information is not always clear, it's not always accurate. If you call the airport, they say the hours are for when the FBO is opened, not necessarily when airport is staffed.
    - Secondly, a lot of pilots don't have access to the Chart Supplement, and for a lot of us in the operations support areas, we take that information and feed it into our internal manuals so pilots have the information available. The Chart Supplement in not something the carriers have on them.

Facilitator

- In the 5010 Airport Master Record, it's not the time at the top where it lists who the airport owner is, and who the airport manager is, that's a general information/ administrative section; down at the bottom in the Remarks section is where you would find information about the hours from an operational standpoint.
- We've also recently had requests from airlines to also provide a phone number of the person who is actually providing FICON information in case there's an issue so a discussion can be had. We will put this out in a Cert Alert later, and ask for that to be done by airport operators to request that airports publish a functional number, so that you could always pick up the phone and ask a question.

Audience

- At non-Part 139 airports there is no requirement for any staff – period. There aren't necessarily set hours, and so the gap here is that Conditions Not Monitored appended to the last FICON expires after 24 hours, and then it's gone. Conditions Not Reported has to do with set hours, so that doesn't fit our scenario either. You can't issue it if you don't know how long it's going to be before conditions will be reported again.

Facilitator

- You can issue a Conditions Not Reported NOTAM with an approximate return time, then you would just cancel it when you got back to the airport if the NOTAM was still active.

Audience

- Since the Conditions Not Monitored FICON NOTAM itself is cancelling after 24 hours, after that point there's no FICON NOTAM or a Conditions Not Monitored NOTAM or a Conditions Not Reported NOTAM in the system. Someone looking that airport up would then be forced to assume that the runway is bare and dry because there is no NOTAM issued.
- If there's a Conditions Not Reported NOTAM for a two week period, anyone seeing it

would assume that "for the next two weeks they're not going to report conditions" but that's not accurate – it may be 24 hours, it may be a day and a half, but they don't know when those conditions will be reported again.

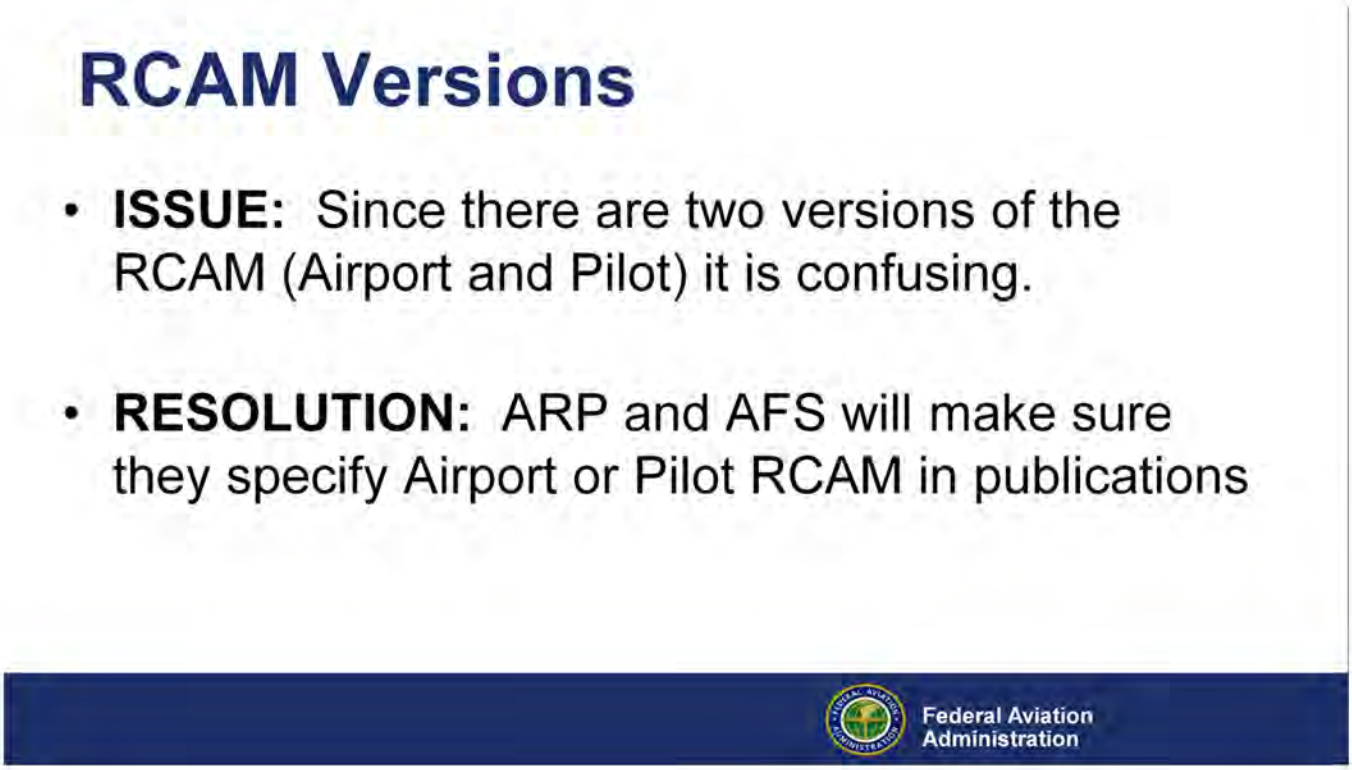
- There's a gap in the two options that are available: if you don't know when you're going to be back, you're publishing misinformation because you put a long enough time period to cover what's probably going to happen

Audience

- As an airport that is a 139 limited operation airport, we've had times when we've actually issued the Conditions Not Reported because we don't have a FICON NOTAM we can issue at the time we shut down. We're anticipating 8 inches of snow by the following morning, so we have to put a NOTAM out there just to cover ourselves.

Facilitator

- That's fine. You can do that. What you don't want to do, because you think you are going to get 8 inches of snow, is report that before you go home.



Facilitator

- We have comments about confusion caused by the fact that we have two versions of the RCAM. One is a pilot version and one is an airport version. I'm pretty sure Airports' guidance addresses the fact that one is for airport operators.
- The big difference is that the pilot version doesn't contain Mu values
    - For airports, we are using Mu as one of the assessment tools to determine whether we need to downgrade the code or in a few instances, upgrade.
- Flight Standards was supposed to take a look at that as well and make sure that there's some clarity in their guidance related to the RCAM for pilots and kind of further differentiating the two differences between those RCAM depictions.

Webinar

- There's actually a third RCAM in AC 25-31 and 25-32 in terms of airplane braking coefficients.

TALPA Team Member

- That's not an RCAM. It's simply assigning the agreed upon performance levels for the various conditions. An RCAM is an operational use tool. Information in the AC is a tool for performance engineers to calculate the performance.

Facilitator

- If there's a way that we could improve the guidance, or add additional clarity to the guidance so that there is no misunderstanding, we are definitely happy to do

that.

Audience

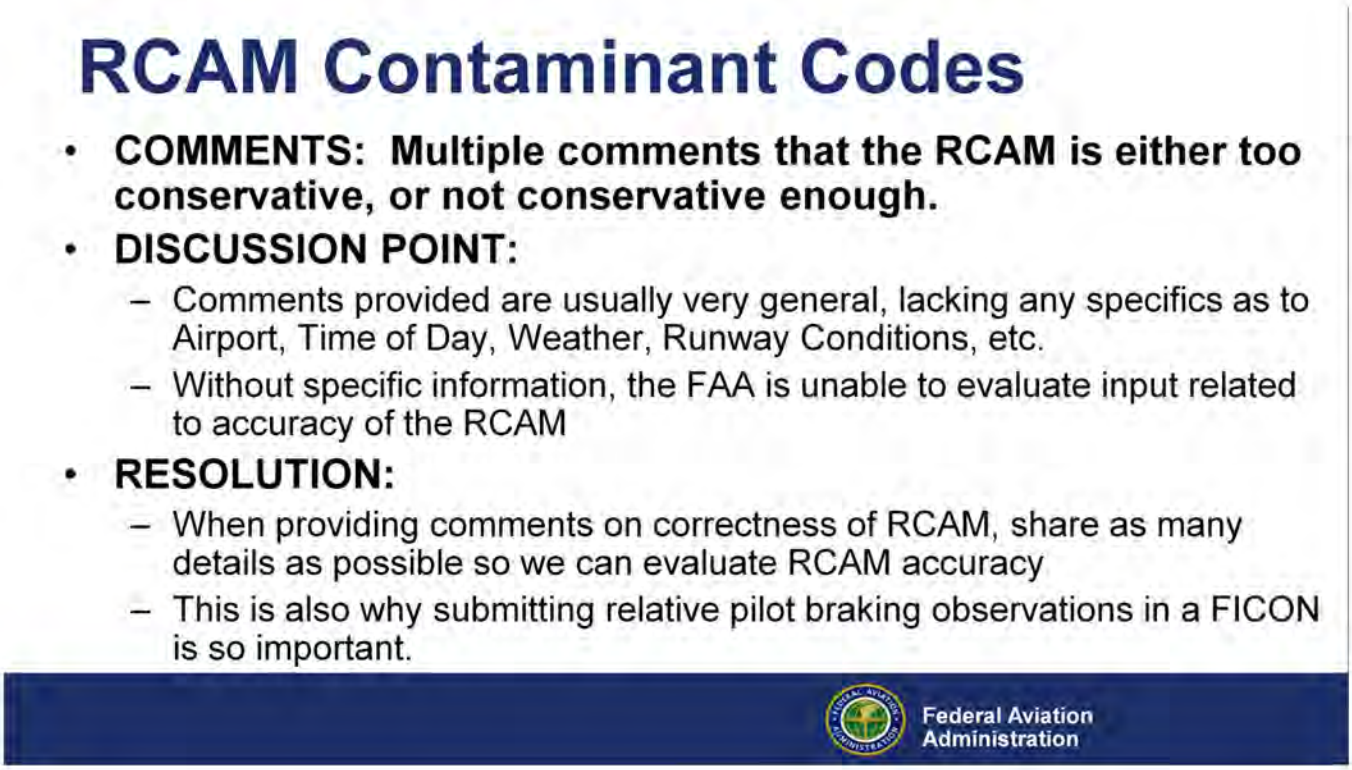
- If you are in the process of separating things and re-labeling, could you please re-label it as "RCAM for Landing"? The Runway Condition Codes mean nothing for takeoff, unless the airline decides to interpolate and create their own charts. It's very confusing to pilots because they try to figure out how the RCAM Runway Condition Code correlates for takeoff, when in fact it doesn't.

Facilitator

- We have gotten some feedback from airlines that are using the code in their departure calculations.

TALPA Team Member

- Tomorrow in the Flight Ops breakout, lets talk about that so the other people can say whether they agree with you.



Facilitator

- We have gotten the whole spectrum in comments on code accuracy.
    - We've gotten feedback in general that the RCAM does not represent anything I believe , and then we've gotten comments from other folks in the industry that say "In the RCAM we trust". We're talking about multiple winter seasons of data before we consider changing these different components within the RCAM itself.
    - A lot of the feedback we get is not data-driven. We have to base our decisions on the available data, which is what comprises the RCAM as it is today, and going forward will drive future changes, which have to be evaluated with a significant amount of data.
        - If you have feedback, please continue to submit it, but give us specifics to those scenarios. Provide as much detail then we can chase that down and have conversations between the lines of business to see what we can do to evaluate it, to see if we really have a problem, or an improvement or fix.
        - We really need some help capturing Pilot Reported Braking Action. I'm really hoping we can figure out how Alaska Airlines is collecting this data, so maybe other airlines will start doing it. We would just be looking for airport, runway, aircraft type, time of observation, and the braking action. We don't need the

company identified, nor flight number, or pilot names.

- This upcoming winter season, we are also going to be asking airports again to please help us out as we try to collect this data whenever it's valid, but data from a pilot in the cockpit would be the most correlatable data.

Audience

- My airline did it the simplest possible way we could - we made it part of the Flight Summary Page in ACARS. The pilot fills out the Flight Summary Page after every single landing, and we have a Pilot Braking Action Report tag, so they can enter what their braking action was any time it was Good or worse. Every time they land, if they landed on a contaminated runway, they enter the Pilot Braking Action Report , which also records their landing runway as well.

Audience

- My airline also has a Flight Summary Page where it could possibly be entered.

Webinar

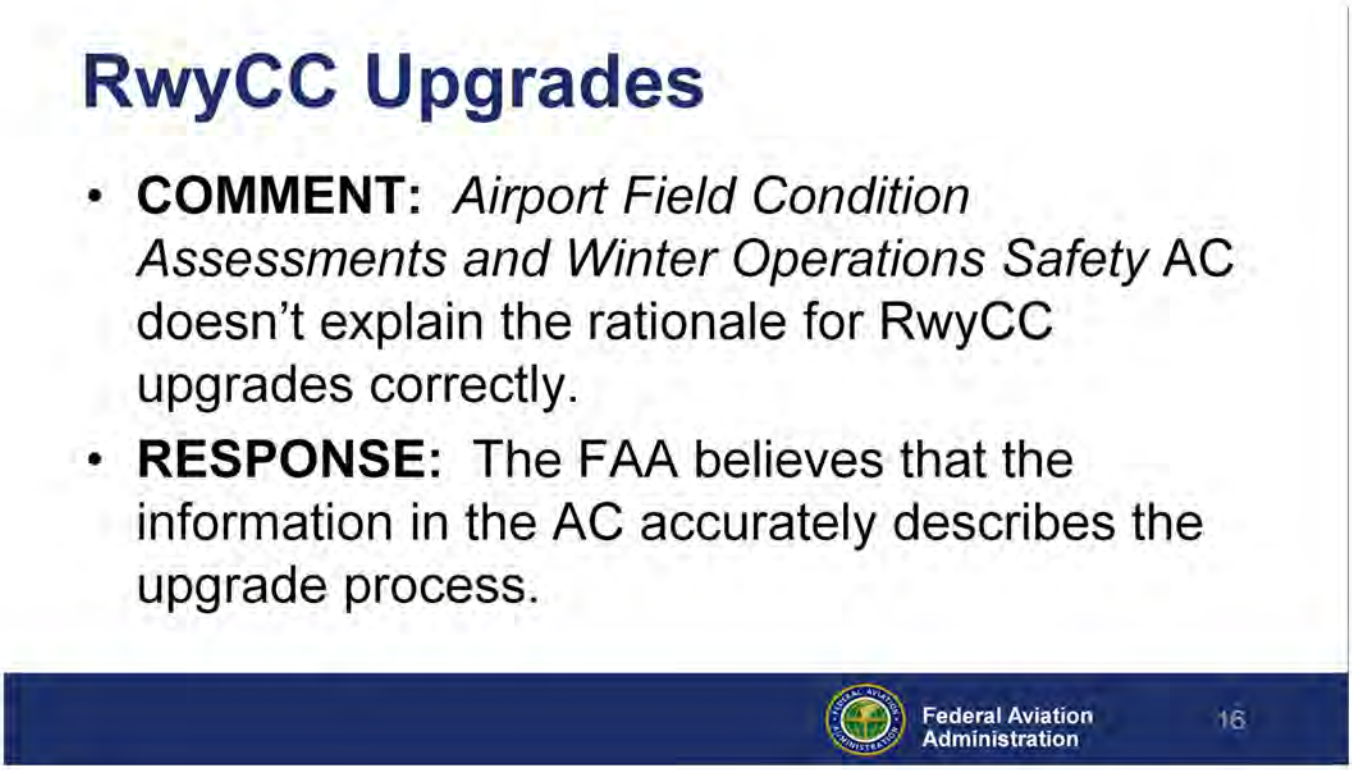
- Caller requested that we add "trace of snow" to the RCAM.

Facilitator

- Currently we have less than 1/8 inch, which would include a trace of snow.

TALPA Team Member

- "Trace" falls under "patchy" terminology and we want to stay away from vague terminology like that.



Facilitator

- We disagree with the comment. We think the AC very specifically describes when you can upgrade. Can anyone add detail as to what the issue is with upgrades?

Audience

- As an airport operator, the problem we have is that you have to have a Mu of 40 or above, average. The problem with that is a 40 or above is an un reportable condition, so how can you have a non-reportable condition and still generate an RCAM value? Why can we not correlate the RCAM values if we're getting 35's on our Mu readings, we're doing friction testing and getting 35's, why can't we upgrade to an appropriate code; we've had flights cancel because literally we had 0's per the RCAM, but we were getting 35's for our friction values.

Facilitator

- You're right, that Mu is not reportable, but it is something you can enter into the NOTAM system as one of the many variables that you have to consider when considering an upgrade.
- The reason you need a 40 and not a 38 or 39 is because of the variability, and 40 is the mark where we represent a dry runway environment. If you get a 40 or above, you've met your upgrade criteria, and you enter that into the NOTAM system to substantiate your upgrade.
- Upgrading is not really anticipated to be used often. Because, ice and those

contaminants in the 1 and 0 box are very hazardous and pose quite a level of variability in the slipperiness.

Audience

- The value of 40 was a compromise at the time of the validations. I actually believed that it was safe to upgrade ice to a code 3 at 35 or greater, but I lost that argument. By upgrading, you are actually telling the crews that you've got a 40 or greater because you couldn't see a code 3 on an ice-covered runway without the 40 or greater. So you are letting them know you have a 40 or greater without reporting 40 or greater by reporting code 3. That is perfectly acceptable to the airline.

TALPA Team Member

- There is a very specific reason for the requirement of 40 Mu, what we called a "preponderance of evidence", because we are talking about a runway that is at ice, and we don't have a lot of faith in necessarily. The friction values on the RCAM are the ICAO standard numbers that are kind of related to which code, depending on which friction device you have.

Audience

- The way the RCAM is written, it show's Mu values 40 and higher as being a 5 or 6 code, but you can only upgrade to a 3, so as airport operators, it's very aggravating to report a one or a two. Let's say you have ice, but you've made it brown with sand, and you're getting good friction values, but you're not getting 40's, let's say you're getting 35's or 36's. What's frustrating is that you can't communicate that to the pilots through the RCAM by upgrading to a 2 or 3. There's no mechanism for you to do that, and the big red letters in the box "Must be 40 or above" are very intimidating when you're getting 38 or 39, so you're very close, but you can't give that information to the flight crews.

Facilitator

- We understand that, and again, I think that the times that you have the opportunity to upgrade are going to be so limited that it's not something you are doing on a routine basis.
- Another aspect to the 40 Mu is that we need to make sure we're not making a significant mistake. For an upgrade to happen, you truly have to have a contaminant behave as it's not known to behave.
- In the slides Nick covered earlier, that huge swath of ice was reported as a 1. It was also associated with PIREPS, and a large number of those PIREPS aligned with what the RCAM was saying. There were outliers, 3% or so, where the 1 was not aligning with the PIREP, but the larger majority of those PIREPS were aligning with what the RCAM is saying. That's what we saw in the validation data a few years back, and even in the small 2% snapshot that we got this year. So it's a very dangerous scenario and that's what the concern was because the original intent was to not have upgrade criteria in the RCAM at all.

Audience

- It is routine, especially in Alaska. We have many airports that routinely, even for 6 months

out of the year have temperatures below where you can effectively use anti-icing or de-icing chemicals. In addition, the airports aren't 24 hour operations, so we often have ice-covered runways all winter long. We use sand and scraping and other measures to try and mitigate that, so it's not that the contaminant is necessarily behaving differently, but the airport may have taken mitigation measures.

- The preponderance of evidence, I believe is accurate, and I think that's one of the key points that needs to continue to be explored. I think in the second year of validation we had a hint that a number lower than 40 was potentially appropriate. But it hasn't been looked at well enough, with enough data, to try to nail it down. I understand the desire to be more conservative going in, but we owe it to ourselves to make sure we didn't set that bar too high and we're wasting a bunch of resources and costing a bunch of money, whether that's airline money or airport money.
- The other issue is that there are other aircraft involved in this. It's not just large air carrier aircraft. We have a pilot in a Super Cub at an airport where the runway is closed because the runway condition code says it's supposed to be NIL, and we can't upgrade that unless we get the runways to 40. If the Mu's were 25 that would be more than safe for the guy in the Super Cub that only needs 70 feet of runway to get off the ground. So we are unnecessarily burdening some of the GA traffic at these airports with an ultra-conservative approach that needs to have some ability to allow operations where they are safe.

Facilitator

- When we talk about aircraft excursions, we're not talking just about the ability to stop from a longitudinal standpoint, there are also directional control issues. We have aircraft going off the sides of runways all the time. So it's not just a distance issue – are you going to end up on the side of the runway and take out some of the NAVAID equipment? Those are the scenarios factoring into this, so it's intentionally conservative.
- I agree there's definitely more area for discussion on Mu, but the problem is that the amount of data that was looked at prior to this RCAM being published does not support any use of Mu within that specific of a range. You could go run equipment down the runway and get a 35, and do it again and end up with a 15. That's what the NASA testing, the Wallops, and all the other testing efforts highlighted as the problems with Mu and why we needed to walk away from it.
- We are going to continue to monitor changes in the industry and new technology to see if they will afford us a better way to work the friction measuring piece. Now, and at the time of the TALPA ARC and TALPA rollout, there was nothing we could rely on to make those determinations and that's why the 40 Mu was set.

Audience

- One of the things that's frustrated our dispatchers is the disconnect between the Runway Condition Code values and the reported contaminants. Some of it was, very rarely, an upgrade based on the conditions allowed, or a downgrade based on the assessment team. Sometimes it was an update after they'd cleared the field, but they hadn't updated the actual contaminant, but they did update the Runway Condition Code . Sometimes it was a matter of an inappropriately assigned Runway Condition Code value, based on probably

old habit. Has there been any thought to the idea of appending a FICON NOTAM with some kind of indication of what their logic was behind updating a Runway Condition Code with a disconnect with the contaminants reported.

Facilitator

- We are trying to keep the NOTAM information as succinct as possible. It's helped to standardize things. In certain cases, the NOTAM got shorter. In other cases, where you have multiple and layered contaminants, it grew a little in length. We're trying to condense the information and give you as much as possible in that NOTAM string. We just don't have any functional solutions right now to say "this 3/3/3 is an upgrade". If you look at the RCAM, you can determine if you have an upgrade when you see a contaminant not align with that code, and it's because they've upgraded it or downgraded it.
- The airport operator can't manipulate the code intentionally or unintentionally. The code is generated by the NOTAM system software based on their input of the contaminants. You can't fudge it unless you just lie and say, for example, I have 1/8 dry snow when you have really have 3 inches of wet snow. There's no fix for someone who intentionally wants to deceive the system.
- There was a lot of thought put into the development of the NOTAM Manager system to incorporate the TALPA rules. We tried to mitigate some of the human factors out of it. We were walking away from narratives as much as possible because that's where you lose standardization. If there's a short way to indicate, "this code is up or down" from whatever the contaminant is, I think we could definitely discuss that. But right now the only indicator is, you look at the RCAM and it says Ice is 1, but your FICON says 3. When you look at a NOTAM you're not just getting the codes, you're getting the whole description for each third or it's a single description if all thirds are the same.

Audience

- I just wanted to comment about the Alaska issue. In the TALPA development, the problem was that you couldn't necessarily get a best practice for one specific instance, and apply that best practice to the entire industry.
    - One of the problems is that we had all these people over the last 30 years who had friction devices that were certified for approval by the FAA. There are 12-20 of them, but there's a huge spread in how all those friction devices can be used.
    - We have a bunch of different airport operators, and some of them, especially from northern airports, knew how to do it, and had it down pat. So the question was how to get the knowledge from those airports applied at airports where they might not see snow for a couple years. And how do you take that into account?
    - We've had Mu readings of 40 and aircraft go off the end of the runway with an aircraft braking coefficient of .08. We can't have 40 CFME readings and have more accidents.
    - And that's the reasoning behind assigning the 40 – if we have that much variability, because we have to go to the lowest common denominator, we have to ask ourselves: what if that CFME device or deceleration device isn't correctly

calibrated? Or operated by a person who really knows how to do it? Who's in an airport that doesn't deal with this 6 months out of the year; What are the chances that they're not going to do it perfectly and that we are going to have an accident? So, we had to build in that buffer.

TALPA Team Member

- I just went and looked at the Midway accident, and the report from the friction device after the accident was 40/41/38. And that runway was not a good runway.

Audience

- Getting back to the accurate description of the upgrade process, I will say this is anecdotal, and came pretty early in the season, as I talked to some of our airport members. What constitutes upgrade versus what constitutes full-on reassessment? It may have seemed like it would be abundantly obvious what those two are, but I don't know that that was really the case. So I think there probably is some value in, either through training or communication, or maybe some additional explanatory text, whenever the next change to the AC comes out about what's the distinction between upgrade and reassessment, and then reassessment plus upgrade. I think a little additional explanation might resolve some of those issues.

Facilitator

- A lot of people, especially airport operators, were coming to the FAA and saying "I just did an airfield assessment and I got a 1/1/1 - how can I get out of that?" Or, "the aircraft put me in a "poor" scenario, I'm trapped, how do I upgrade? I can't upgrade, I don't have a CFME." I think a lot of airports thought that the upgrade process was the only way to change your original runway assessment.
- Confusion on that point was communicated to our office from a few airports. In those scenarios, we're not looking for an upgrade, we're looking for you to mitigate and reassess the runway, which is very different from upgrading.
- Upgrading is when you are stuck with a contaminant that's not going away, and you're going to go do something to it and try to get a different performance out of that contaminant, or if it's possible to remove it, that's the other mitigation. Or you can close your runway.
- Reassessment is what you do when you've gone out there and changed the conditions. So if you had 2 inches of snow and now you have ¼ of an inch, you reassess. That's not an upgrade. You're not upgrading codes, you're just reassessing the runway with a new fresh report on whatever the condition of that pavement is.
- If some airport went out there and did their mitigation, received the coding as a result of the contaminants, but got a bad PIREP, they would go out there and reassess the runway and see if the original assessment was correct or if they need to change something or if they need to mitigate the actual contaminants.
- We added some language in the AC to address that point, but we can definitely continue to look at that if there's additional clarity needed.

Webinar

- Why are we allowed to upgrade a 0 or 1, but not allowed to upgrade a 2?

Facilitator

- With a 0 or 1, that's an operationally limiting situation, so that was the reason for limiting upgrades to when it might affect your operation. For codes of 2's, 3's, 4's, and 5's, you really shouldn't be having any major issue there unless it's equipment specific. The 0's and 1's were a big issue for the air carriers that were part of the ARC and I think that's what started the discussion on the upgrades.

TALPA Team Member

- A code of 2 is Slush or standing water; they're outside the parameters of a Mu meter. Probably the main reason that it was only ice that became an issue.

Audience

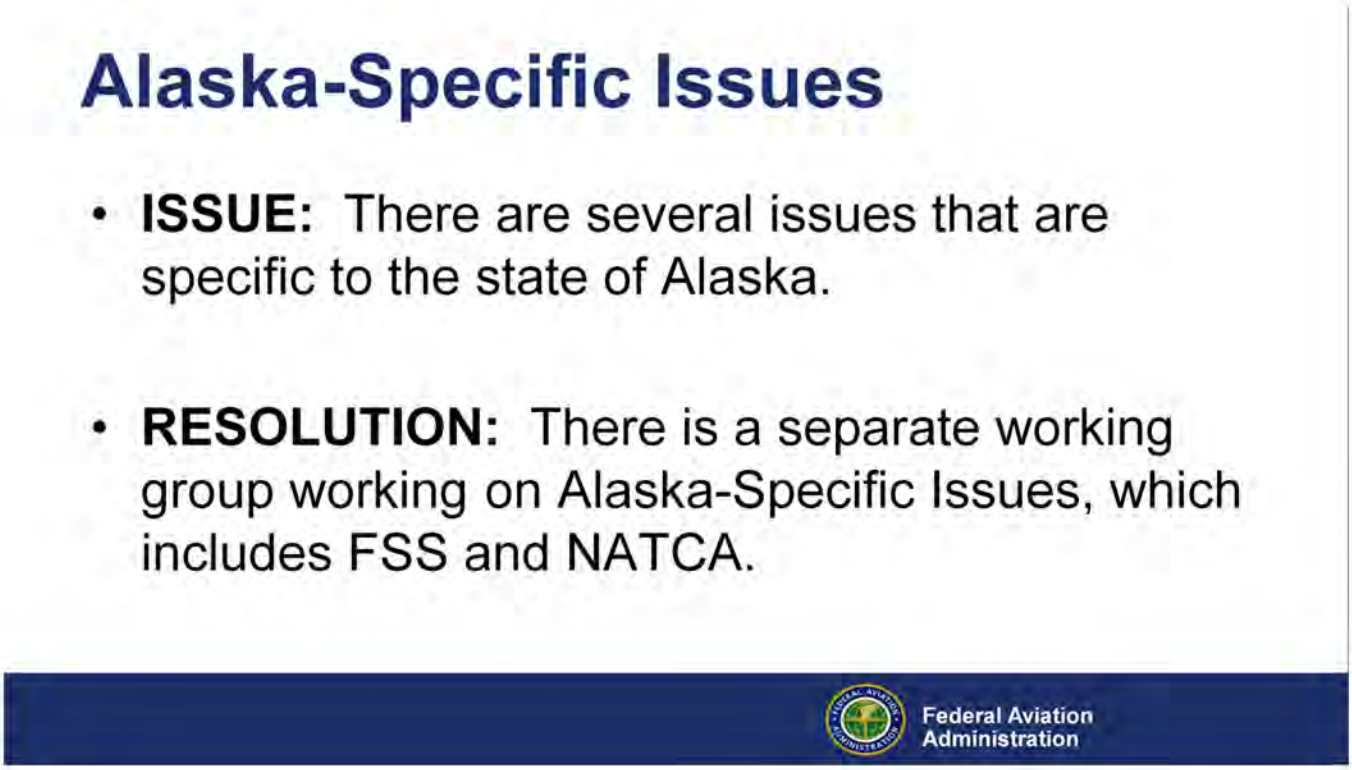
- The only way to mitigate it slush or standing water is to remove it. And you can't run a Mu meter with greater than 1/8 inch of slush or standing water because it's outside the parameters of the Mu meter.
- That was the biggest problem with the Midway accident Mu report. There were over 2 inches of snow on the runway when they ran that Mu meter down the runway, and got 40's. That was way outside the ability of the Mu meter to accurately measure. We didn't know where they ran it on the runway.
- We have several instances up in Alaska, where they cleared and de-iced the runway beautifully, 60 feet wide, and had wet ice outside of the 60 feet wide. They couldn't get a Mu meter to get anything over 35 on the wet ice portion, but that wasn't going to be the "usable" portion of the runway. Unfortunately, the AC says that if there is a hazard that remains on the remaining portion of the runway, you need to close that runway. Operating on the remaining portion of the runway at taxi speed when you are exiting, that area of the runway would be perfectly safe to exit at the taxiway, it is not a hazard. But, because of the AC language, it drove them to close the runway and not report any runway condition codes at all, because the interpretation of the AC was there was a hazard on the remaining portion of the runway because there was wet ice that they could only get to 35. They thought they had to close it. Unfortunately it stopped our operation at least 3 times into a bunch of airports up in Alaska.

Facilitator

- That's not the intent of the remainder portion. In the scenario you described when they're maintaining the center portion of the runway full length, whatever you have on the sides is typically considered remainder.
- In the AC, we say that the code is not going to be based on the remainder, it's going to be based on that center portion you are maintaining, and therefore you shouldn't need to close your runway.
- The reason we have the language about hazards in the AC, is to prevent the case where an airport maintains the center 100 feet, and leaves 10 inches of snow on the sides, and thinks

that's okay because they're maintaining the center portion of the runway. That's not what we want.

- When we say hazardous, we mean that's the airport assessment. For example, if you have wet ice peppered throughout the edges of your runway, it's not going to be a performance issue more than likely. However, you could have solid wet ice on the outside 20 feet of your runway. We want airport operators to remember that the whole width of the runway is available to the pilot, so if he puts wheels down, and he's on the edge of that pavement, he should be able to land there and not go off the side or the end of the runway, or not sustain damage. So we have to figure out how to mitigate that and not unnecessarily close the runway. That's not the intent of the guidance. It's on our list to develop better language to capture that scenario.

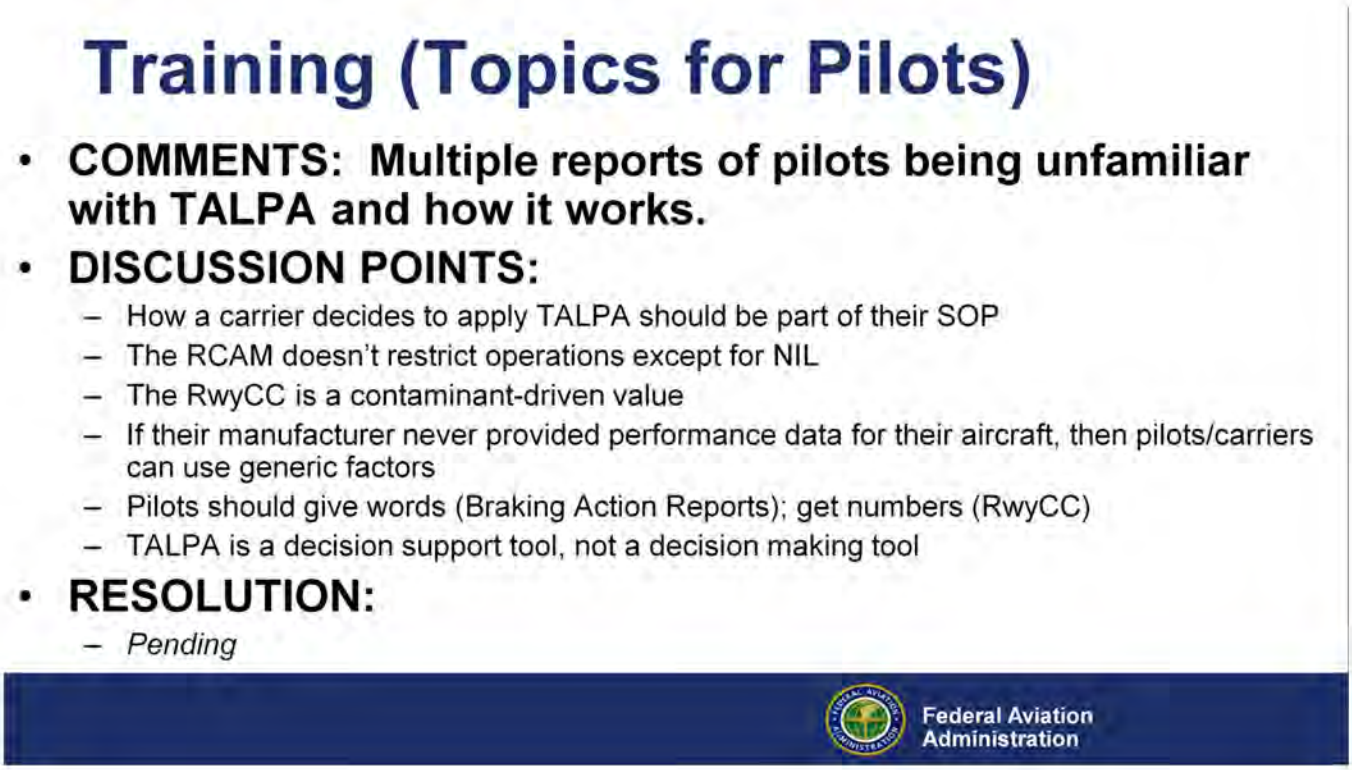


Facilitator

- The issues here were specific to the NOTAM system and the fact that they're having issues with bandwidth and trying to get on to the NOTAM Manager site in a lot of remote locations. We might have some airports like out on Midway Island and other places that want to use the digital NOTAM system where they have bandwidth issues and everything moves really slowly.
- The NOTAM folks are working specifically with that group of airports and also Flight Service Stations. They're trying to sort out what is the best fix for that Alaska specific scenario. It is being looked at separately from the rest of the US.

TALPA Team Member

- The FAA US NOTAM System, Federal NOTAM System is working this. Alaska's got problems at a lot of the airports; you basically have to go out and get all their information, fax that in to Flight Service, who has to put it in to get it to Anchorage or one of the hubs, so they can put it into NOTAM Manager, if it's working there. And it is a bandwidth issue. They are very much aware of it and working on it, but we're hoping that by next season we've got a solution. There won't be any iPad solutions, I can promise you that.



Facilitator

- From the airports' perspective, aircraft operators are not operating on contaminants they were operating on in the previous years. For example, last year they landed on ice - today they won't land on ice.
- From the airport side, the RCAM does not dictate to anyone when they can and cannot operate on the runway. You can operate on the runway to a code 1. A "NIL" braking or unsafe condition (Code "0") is the only time that the RCAM would prompt an airport operator to do some sort of an action, like suspend operations, close a runway, mitigate the contaminant, do something to remove that unsafe condition. That is the only time the RCAM comes into play from a restrictive standpoint.
- The airlines determine what their limits are and what their performance is, it's their decision. What may have affected this, is that more performance data has become available in the recent past. That has factored into the decision making process by the airlines. That's not an RCAM driven issue per se, and the requirements for actions on "NIL" was introduced back in 2008, way before the RCAM was implemented.

Audience

- We provide service almost exclusively to business aviation customers; the note about manufacturers not having performance data is pretty much true for our customers and operators. For our operators we have about effectively 0%

acceptance of using Runway Condition Codes at all. We tried to map the contaminant type to the RCAM scores, but because they use contaminant drag, it creates all sorts of weird reversals in data; so we don't really have any operators using RCAM at all.

Facilitator

- So, it's not data you can pay to have developed? Beyond that the RCAM can be associated with estimated PIREP data which has long been used for performance calculations by operators.

TALPA Team Member

- No. We all recognize this part of the issue. It is something we plan to take up tomorrow in the breakout session. Originally our plan was to see if we could do an Special Airworthiness Information Bulletin (SAIB), which is a mechanism from Transport Standards. However, management felt an SAIB wasn't the appropriate vehicle for doing that, so instead, we invited all the manufacturers we could to this meeting. And we told them, these are the questions that need to be answered. It's the companies that already provide data that are here. Most of the others aren't. We don't have any more power than that because it's a voluntary program.

Audience

- Comment from an airport, the lack of familiarity from the pilot side, even with the air carriers, what I would like to say to my friends in the room that are with air carriers, is communicate with your airport – if you tell us what you need, we can work toward that standard, but if we don't know what the standard is, we can't help you.
- We're seeing flights being cancelled because of an RCAM value of 2, which was fine yesterday for one carrier, but is not fine today for another carrier. We don't want you to cancel flights; you don't want to cancel flights; it's just a matter of communication. If you can share with us what the standard is for your carrier and your conditions, I understand there is some leeway given for pilot discretion and things like that, but it can be really aggravating as an airport operator. We have a regional carrier that operates for regional service for two different regional carriers out of our airport, on one morning, even though the RCAM isn't supposed to be used for departures, one aircraft declared he couldn't depart with an RCAM value of 2, and the other pilot left without a comment on the same RCAM value. So, the same carrier, operating under different flags, under the same RCAM value, so airport operators are stuck wondering how much effort they need to put into snow removal, what kind of treatment they need to do, what constitutes an acceptable condition for their carriers? We just need to know so that we can work with you.

Audience

- Regarding data, is there any distinction between part 25 and part 23 planes, whether data is more available for airplanes certified under one part versus the other?

Audience

- Generally, with the aircraft we support, which are anywhere between the small Cessna's and Gulfstreams or Globals, there's effectively no data at all. The contaminant data that is available typically follows the EASA guidelines, and is advisory, but there's not any

concept of braking action, with one exception. The Falcon sometimes has braking action charts, no one else has any data. Part 23 for sure, but part 25's not much better.

TALPA Team Member

- In general, you're talking airplanes that have been out there a while.

Audience

- Generally speaking, yes, but even some recently certified aircraft , Cessna, Honda Jet, etc, they don't have anything different than they've ever had.

TALPA Team Member

- How many people are familiar with the Table of Generic Factors? [A couple people.]

TALPA Team Member

- During the TALPA ARC, this was recognized as one of the issues. One of the interim things, if a manufacturer chose not to give data, was a Table of Generic Factors that can be applied to the Dry runway Airplane Flight Manual Landing Distance. In general, they are reasonably accurate, but we don't know every airplane. So it's available, whether or not they want to use it.
- The second part in AC 25-32, it said that you can use EASA data. It still comes down to the operator making choices on what to do.

TALPA Team Member

- As was said, as an airport operator, nobody wants to see you cancel your flight, talk to your local Air Traffic Facility.

Audience

- To the point about pilots not knowing TALPA, when TALPA came out in October, in coordination with airports, we petitioned our air carrier pilots and asked them, what education did you receive?
    - There was a glaring difference from airline to airline, FedEx and Alaska did an excellent job getting their pilots up to speed. Other airlines basically copied verbatim what came out with the Flight Standards SAFO, put it in the Jeppesen form, and handed it out to pilots and said "This is what TALPA is all about". That's shameful, that's wrong.
    - The airlines being able to just put out a piece of paper or memo to train for something this important, on reporting. We had to go back as an Association and put out some comments to just say "you take in numbers and you put words out". Numbers meaning this is what you get when you are coming in to land; you put words out after you land. Simple stuff like that had to go out. None of that was contained in a lot of the educational pieces that went out by the airlines.
    - We understand this is a voluntary program, but there needed to be a standard. That's why you're getting the gamut.
    - To counter the question from the airports side, you get a number of issues where you've got dispatchable items such as inoperative thrust reverser, which would

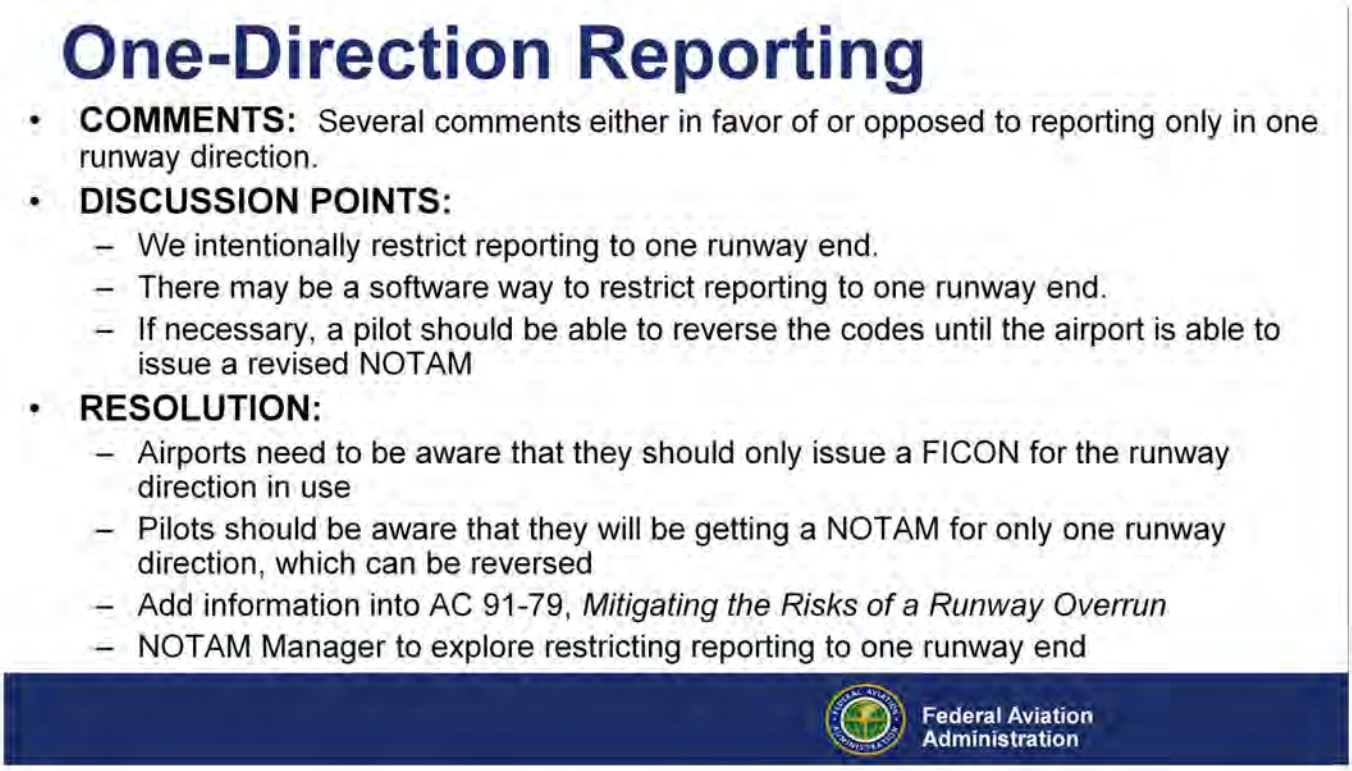
deal with centerline control, and issues like that, and now you've got a dispatcher who's dealing with 18-20 flights on their watch, having to call each individual airport saying "Hey I need this, but this next flight, don't worry about it." That's going to lead to confusion down the line. I think you need to set up a standard to say "I want my runway clean, I want to get it as clean as possible", not "what do you need."

TALPA Team Member

- I'm in AFS, and I was the branch member assigned to the TALPA work group. I went to my superiors and talked about what kind of guidance we were going to write for the airlines, for the 121's, the 135's, what we were going to write for our POIs to give to their carriers, to give to their operators. The response was "TALPA is voluntary, why do we have to give any guidance out?" And that's part of the reason why you don't see that.
- What I'm asking you to do is send an email to the TALPA mailbox and put down what you just said. My argument didn't hold any water the last time, so I don't see how it's going to hold any water this time, unless we hear from you. We hear from not just ALPA, but Fed Ex, or whoever, start hearing from carriers, "Hey listen, we need more standardization amongst our training." Although with pilots, with our carrier pilots, with our 135 pilots, that'll get a reaction.

Audience

- From the part 23 side of things, I know that we, in addition to all our competitors, do provide contaminated runway data, wet runway data, for consideration of EASA operations. Now we're not required to provide that information for FAA, however, most of the time that information is provided to our customers upon request.
- In the case of our certification, because we were just certified when we had the meeting last year, we made a significant effort to align our data with the contamination codes in the RCAM, just because we knew that was coming out here in the states and that it would likely be adopted later on, so I know that is being addressed in Part 23 airplanes currently. Now that may not apply to airplanes that are out there in service and have been for many years. Most likely that data is available upon customer request.



Facilitator

- We had some confusion during the rollout about whether airports needed to report runway condition codes from each end for every runway. The intention was not spelled out initially. The intention is to report on one direction of the runway, and those codes, whether you land the other way or depart the other way, still apply to the same third, so the codes don't change in their application.
- We didn't anticipate the confusion because we were already doing the same thing with Mu. When you took Mu readings on the runway you didn't report them in both directions; you just reported them from the runway end where you started your observation. Similarly, the Runway Condition Codes for one runway end indicate where you began your assessment so that you can identify which code corresponds to which third of the runway.
- It is not intended to report codes from both runway ends. We had a lot of calls from pilots or airlines saying that caused a lot of confusion. It also produced a lot of additional information in the NOTAM system, and an opportunity for more human error.
- We wrongly assumed that the NOTAM system would restrict you from reporting from both ends, but that wasn't built in. That's something we're hoping to fix in the near future within the NOTAM system.
- One-direction runway reporting can be reversed. Air Traffic has the option to do that, however, it's really up to the aircraft operator. The airport operator won't

always have a chance to run out, update conditions and swap the numbers around.

- There have been requests that if the runway operation changes from the 4R end to the 22L end that the airport operator should go out there and issue another NOTAM and reverse the codes, but sometimes that's not functional, depending on how busy the airport is. I think that when they can, they will, but depending on how Air Traffic is using runways, especially when you have kind of light winds, you could land and depart any runway end. So, it's not really an issue. You can reverse interpolate those numbers as they are reported for that particular runway.
- Part of the solution we're proposing is to issue a single NOTAM and put some guidance out there from Flight Standards. We all need to be aware that you can use them in reverse. If an airport can update the information and reverse them for you, that would be great, but I think from an air traffic standpoint they are going to report the direction that is reflected in the NOTAM. If they get a request, ATC may reverse them for you, or an aircraft operator can reverse them for themselves. They will be published on ATIS the way it is reflected in the NOTAM system.

Audience

- I'd like to recommend that we adopt the ICAO format for reporting by the lowest runway end first, and I'd like to hear from ALPA what they'd have to say about this. If you did adopt the ICAO format, it's automatically reversible and I would trust the professional pilots to figure that out.
- It would also further our goal of standardizing reporting internationally. This was discussed in Montreal in February; they would like to see the FAA consider that as an international standard. I just throw that out to the community to see what your thoughts are.

Facilitator

- So, you're saying that the ICAO standard right now is to adopt the lowest runway denominator regardless of where the observation began?

Audience

- The interpolation and the judgment calls that need to get made here, which are going to be very site specific, I suggest we go with what Paul is suggesting and adopt the ICAO standard of global reporting format. There's no question, there's no uncertainty, there's no judgment that you need to make. If they make a change, do I need to figure out which way they reported it? It's always the same. I know I've brought that up in prior forums, going back even before Montreal, something our members were saying to us, I just really, really strongly encourage that.

Facilitator

- We will definitely take a look at that, I know a big goal for us and the NOTAM folks is harmonization with ICAO since we are a member state.

TALPA Team Member

- May I see a show of hands of pilots or airplane operators who would like to see the

SNOWTAM? The actual international SNOWTAM. [2 hands were raised] From the airport operator perspective, who would want to see the SNOWTAM? [No hands were raised]

Facilitator

- I think the question for airports is "What is a SNOWTAM?"

TALPA Team Member

- I thought you were going to go down that road towards the SNOTAM and I was a little scared, so I'm very happy to not hear that. Because, the SNOWTAM looks like a crossword puzzle, you have maybe an 8 ½ x 11 sheet of paper filled with just letters and numbers and it means code. OK, thank you, I just needed some reassurance.

Audience

- Can I mention something about the one-way reporting? From an airport standard, I understand that reporting on the lowest runway would certainly reduce the burden, but from a pilot point of view, it's not so intuitive, and there would be a lot of training that would be required if this was adopted, so I think we need to be very careful before we go down this road of adopting the ICAO format.

Facilitator

- I know we are talking about a lot of fixes and potential enhancements. Because of the time we're looking at from a policy development standpoint, funding and system change standpoint, much of what we're talking about today we're looking at potentially implementing in the 2018/2019 winter season. We would definitely solicit your feedback and comments on any changes. I'm not familiar with that portion of the ICAO formatting, so we'll take a look and see what happens, and especially as Lynette mentioned from the NOTAM side.
- We do try to harmonize with ICAO, but sometimes that doesn't always necessarily force a change on our side. We've filed exceptions with ICAO on many items, including Mu values, so it's something that has to make sense for us and for the industry here in the US.

TALPA Team Member

- If you are a pilot and you're listening to the tower Runway 27 Cleared to Land, Runway 9 Runway Condition Code 4/3/2, now you've got to figure out, OK, I'm landing runway 27, I've got codes for runway 9, now I've got to turn it around and reverse it, the possibility of confusion there is great, and I think that's a safety problem.

Audience

- I'm not so sure ICAO format would make things easier from the airport operator standpoint, because the AC says that when we do friction runs and when we do our assessments, we do them with traffic. Especially if you're talking about multiple contaminants, layered contaminants, it's just easier to give it in the order that they are observed rather than having to try and flip it. Given that we're already reporting in order from the runway end that is being used, it's simpler to just keep it the way we are doing it right now.

Audience

- About the SNOWTAM system and international operations – at my airline, we spent a lot of time building an application that would both allow our pilots to look at Runway Condition Codes, also look at SNOWTAMS, also look at all the different issues that we deal with from everywhere we fly all over the world, and try to make this easy for the pilots, and not have to have a cryptic de-coder ring to figure out what they need to put in for their aircraft performance solution in the FMS on the airplane. Because we have the system we've developed and spent thousands of hours of programming in development, I don't think that's what we would want to expect every airline to have to do. I would not be in favor of trying to adopt the ICAO format because for the pilot, it's a nightmare. We've made it as easy as we can right now. I would not be for it. I don't think it would be easy for everybody in here to teach our pilots and our guys that are still learning how to do this, and turning the runways around. We had a lot of conversations about this in Minneapolis with a room full of TALPA people, about 40 people.

Audience

- We have to be very careful of the law of unintended consequences. We spent months and months on the ARC, deciding that the best way to do it from a pilot's perspective, and from the airport's perspective as well, was to report in the direction of traffic.
- Only non-FICON NOTAMs should be reported with both runway ends. It's a non-FICON NOTAM and a pilot knows to look for those things, just like a Slippery When Wet NOTAM should be a non-FICON NOTAM, but my point is we have to be very careful. Maybe the easier solution would be to have the digital NOTAM system, if it's a calm wind day, also generate a FICON for the opposite runway and then you have 2 FICONs. That way the pilot, depending on which direction they are landing, looks at the correct one. That was the intent of the TALPA ARC, and I think we have to be very careful of unintended consequences if we start making changes right now.

Audience

- From a pilot point of view, just think in similarities for RVR. There's a difference between touchdown and rollout RVR. If I was landing on 9, and you gave the RVR for 27, and ask me to flip the two, is that in keeping with the intent of what you are trying to accomplish?
- In my experience, most of the time, an airport doesn't flip the runways around; if you're going to land at a part 139 airport, then you're all landing on one or two runways; they don't change them willy-nilly.

Facilitator

- These are valid points. One thing to remember with generating two NOTAMs - one of the ARC recommendations was to reduce the amount of NOTAMS in the system. So, doing what was described, fixing the problem electronically, we could possibly look at that and generate 2 NOTAMs every time, but if you fly into ORD, where you've got 10 runways, you just went from 10 to 20 NOTAMs.
- The other thing behind why we did the one-direction FICON reporting is that we didn't want to change a process that was already in place; Mu's were not reported that way. We

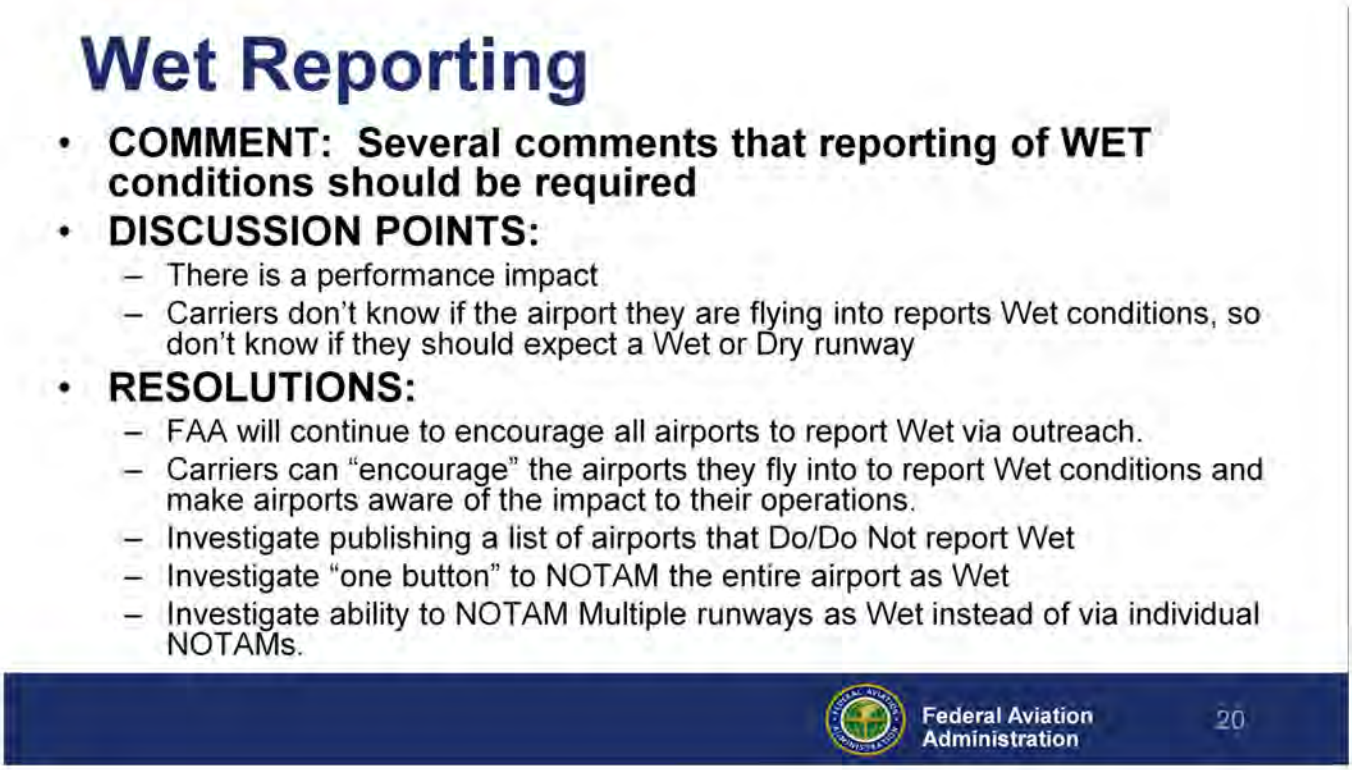
were replacing Mu's with Runway Condition Codes as shorthand information and they fell into the same reporting format that we had previously. So, whatever we propose is going to be a change from how we've always done business, which goes back to the comment that it's going to be a training issue, no matter what the ultimate direction is. We definitely welcome your input, whether it is pro or con.

Webinar

- Please keep in mind or consider small part 139 airports with lots of GA who use whichever runway they want to use.

Facilitator

- We will explore the options and see what the potential impacts are.



Facilitator

- There is a performance impact with wet runways. Sometimes it's not great, and sometimes it's very big, depending on which airport you're flying into, and what type of equipment that you have. The controversy on this subject occurred because just prior to the TALPA rollout, at the 11th hour, we needed to change some of the application of wet reporting for airport operators. There was significant pushback on reporting wet from a large number of airport operators, especially those in the southern belt and those out on the west coast that get a lot of rain, and are always going from a wet to a dry scenario.
- When we were working in the ARC, a lot of the airports that participated and provided feedback were already reporting wet, so I don't think it dawned on anybody that this would be a controversial issue. We were already required to report Water, which is different than Wet, as defined currently in the AC, and so this became a really large problem. Out of everything in the RCAM, this was the one that generated a significantly larger amount of issues and comments. So in the interest of not holding up the rollout of the RCAM, we relaxed the requirement to report Wet and highly encouraged it.
- We knew there were going to be some implications on the pilot side of things, but from an accident investigation perspective, there wasn't a lot of U.S. data that supported the fact that this was a safety critical impact from a TALPA rollout standpoint.

- Even with the language we have out there, where we highly encourage it, some airports have not appreciated that language because they feel it's being forced upon them. We're not forcing it upon you, but if that's the effect that it's having, we're okay with that because we really do believe that wet should be reported.
- What we want to do is figure out a more functional way to report wet. One of the items that was identified as a problem is that when you have multiple runways, that requires multiple NOTAMS and multiple processes, so that every time the runway is wet, I need to go out there and issue a NOTAM for every runway, and then taxiways and ramps.
- There's a possibility of doing a one-button push "Airport Wet" to generate a NOTAM; one-button push and everything's cancelled. There might be some issues if you want it to go Wet and downgrade individual runways, so there are some things that need to be sorted out, but that's a potential solution. We hope it would encourage more wet reporting.
- Some airports have gotten feedback from pilots that they don't need to know if it's wet because they know it's wet – there are raindrops on my windshield – it's wet. That's not always the case. You could have a dry runway and a light rain occurring at the time of arrival.
- Another concern is the dispatch/planning process. There are a lot of other components that are not transparent to airport operators that we could have some discussion on, but that's the background on Wet. It's something the FAA is keeping on the back burner to revisit from a regulatory standpoint down the road, once we've assessed the impact, provided some additional relief on the workload issue, and some of the education.
- Some airport operators believed that to report the runway as Wet, I need to go out there and physically drive the length of the runway every time it rained. Wet is something different from other contaminants, so if we're talking strictly Wet, where the pavement is showing moisture, not accumulating water, because that's a different scenario, that can be done from a visual observation. You don't have to drive the length of the runway to determine that it's wet; that can minimize the operational impact to airport operators.
- We're not asking you to report meteorological conditions, we're asking you to report the effect of those conditions on your pavement.

Audience

- This is the biggest issue we heard back about from our airport members, and I think other airport organizations were hearing similar comments, a lot of the concerns about Wet really go back to the rapid-fire implementation with the airport operators. I think there would have possibly be a different outcome if there had been more time to educate the airport operators on what you meant by reporting of visual observations, because there was concern, there wasn't a lot of explanation in the AC, and there wasn't a lot of advance training materials on the wet-reporting side, that really said what was allowable. You have people coming at it from a winter operations perspective who are doing most of their FICON reports really in that mindset; so what's allowable and what the expectations are; I think there's coordination between flight operators and airport operator community – I think some of that has gone on informally already, on when it's critical from a performance standpoint. If you're dealing, for commercial operations, with a 6,000 to 8,000 foot

runway those are the ones where you might be looking at an impact. You've got a Denver, where you can report 5's all day and nobody's going to see anything, or experiencing performance changes; I think getting that information out, and knowing where it's most critical.

Facilitator

- To make another point to the airport operators, this is a standardization issue for the aircraft operators. There's a definite concern from them since we are inconsistent in the reporting of Wet. One of the purposes of the RCAM process is to standardize how we do things. Anytime we step back from how it's intended to work, we're causing a ripple effect in reliability and standardization.
- I want to highlight that the NOTAM system has advanced so much that the fact that you can type something in, push a button and within seconds your information has been disseminated nationally, that is incredible, and that's why I do not have a sympathetic ear on the Wet issue. I can go enter data ten times, and maybe a minute of my time has been used, so I was hoping there was going to be less of a concern, but definitely always a workload consideration.

Webinar

- Do most of the airlines here plan on dispatching under assumed wet conditions?

Facilitator

- There are several Yeses in the audience.

Audience

- It is entirely dependent on where you are dispatching to that makes the determination of whether we assume Wet, or have to use dry, or what the conditions would be. So, making the general statement, do we always assume Wet, the answer is No at my airline.
- The bigger concern is rainfall intensity, and whether or not that wet runway is going to turn into a standing water runway because the performance difference from a 5/5/5 to a 2/2/2 is significant.

Facilitator

- To clarify, the previous speaker is referring to a report of Water which is very different from Wet, so we should not be reporting Wet if we have greater than that specified depth.

Audience

- At my airline we plan everything Wet, if we can, because the FAA's definition of a wet runway is "a runway that is not dry and is not contaminated", so if you don't know what it's going to be, you're better off just saying it's going to be wet if I can do it.
- If you're looking at an operation to Key West or somewhere like that, where you've got a really short runway, you're not going to be able to plan it wet at max weight, you're going to have to plan it dry and put an alternate on there if you expect there to be a rain shower. Then if that condition exists when the flight gets there, they're going to have to divert. Unless it dries up and is reported as dry.

- One of the things we tried to implement with TALPA on the airline side, is this notion that a Wet runway may be reported as a Wet runway , but if you're in moderate to heavy rain, you're really not looking at a 5/5/5, even if there hasn't been a runway assessment done, that runway is probably more like a 3. I don't know what we can do, maybe we can talk about it in the breakout session, if there's a chance for ATC, when they give an approach clearance, to say yes, cleared whatever runway if they're giving the runway condition codes to say it's 5/5/5 but it's moderate rain.

Audience

- At my airline we actually plan all our runways dry, unless weather, or something that the dispatcher sees and anticipates that the runway will be in deteriorated condition. The simplest way we've taught our dispatchers is if before TALPA you looked at the information and determined that you were going to plan the runway wet, based on the forecast and all the weather reporting systems that you have, you run it wet now.
- If it's reporting moderate or heavy rain, we do plan for the lower degradation of the runway because especially with our aircraft being near max landing weights on a lot of the runways that we operate to. It's a big hit, especially for certain aircraft types, so our dispatchers are monitoring and making their plans based on what they see and then they coordinate with the pilot before the plane ever departs to make sure we're both on the same page. Then our dispatchers, when we run performance, we have our performance for the dispatcher reverse algorithms so it runs inflight the same time it runs dispatch so they can see what both the dispatch weight is and the minimum Runway Condition Code that that weight can go down to, before the weight is impacted, so the dispatcher is always seeing, and in most cases, at max weight, we can go down to a 2 at most of the major airports we go to.

Facilitator

- I want to point out that we are talking about dispatch information, which is very different than using Wet for landing configuration. You don't want somebody conducting a wet operation on a dry runway because that is obviously a very different experience in the cockpit, and I'm sure for passengers you have in the back.

Audience

- In talking about this with Tom Yeager from NASA, he was saying that, like the shuttle landing strip, in FL the Kennedy Space Center, they've designed it with the crown and the grooves, so it can take a lot rain, but you don't have the kind of part 121 ops on that runway that you have on a lot of others.
- I foresee this as being something that where maybe the TALPA or the RCAM could be conceivably changed to have a temporary thing so that during heavy rain there is a process where you can go out and determine if it's more than 3 mm of water that is transient on the runway then you could put on your NOTAM "runway condition 5, temporary 3 in heavy rain", because you're never going to be able to put a NOTAM out right when you are having a downpour. For the most part it's going to be 5, but in heavy rain I've had 3's, and probably 2's.

Facilitator

- I think most air carrier runways are crowned and grooved, so there is very good drainage unless you have a pavement problem where you have ponding, which is a different problem.

Audience

- My comment reflects the gentleman who previously said that on 6,000 to 8,000 foot runways, GA and turbojets, especially that don't have reversers, it's a big concern, primarily because runways can vary, there's a lot of range between a runway of 5 and a 3; everything everybody said here about the amount of rainfall having effect of course is true, and while I can't talk about the Pence investigation, which is on-going, I will mention that LGA in heavy rain, was 5 or better, the coefficient I calculated was better than 25-109C on that landing. If you go to Sugarland, TX and you spit on the runway, you're not going to get down to 3, but just above it; for both the coefficients that were computed at LGA, the heavy rain and the spitting on the runway in Sugarland, in both those cases we had CFME and going through the Tom Yeager method, reflected what the airplane actually produced. So it works for good friction and it works for poor friction. But there's a huge range between a 5 and a 3, and in Sugarland, TX they don't have a CFME, so they would never be able to report Slippery When Wet, even if that's the case because they don't have the device to measure it, to me the problem is very runway dependent; it would be great to see a database of runways emerge where when this runway has a little bit of rain on it it's performing poorly, and these other ones you could rain on it all day and it's going to be fine. That's the reality – it's runway dependent and rain dependent.

Facilitator

- Absolutely, and I'm not sure if Sugarland, TX has grooved runways. But, I think there is a huge impact on aircraft performance when you don't have the grooves, because not only is it for drainage, but it affects friction as well, you know aircraft coefficient of friction, it does assist a little bit on that end, but there are lots of other issues.
- It's not just rubber build up – some people think that when we have pavement friction issues it's just rubber buildup. It's not always rubber buildup, you could have collapsed grooves or you could have macro-texture issues which are very common with ungrooved surfaces. A host of different problems can affect your pavement - pavement age, so there are many components that give your runway performance a different perspective. It's something for airport operators to keep in mind looking at their individual runway pavement.
- Not every airport has a CFME because the criteria for doing pavement testing is dependent on the number of turbojet operations per runway end. There may be some airports that get a couple of flights a day, maybe not every day of the week, throughout the year, and the rest of it is small turboprop operations. You might not rise to the level of needing to conduct a friction analysis on your pavement, or you may do it more infrequently through contracted work; but it is dependent on heavier operations to conduct these type of assessments.

Audience

- Historical note, on the TALPA ARC, we worked very, very, hard to differentiate between Slippery When Wet, which is a code 3, that is caused by the reverted rubber in the runway, failing its friction test under the wet Mu tire test, and standing water, greater than 1/8 inch, which is a code 2, because of the risk of hydroplaning. And we struggled very long and hard with assigning a code 2 to that condition because we recognized that above hydroplaning speed it was really a NIL because there was no contact with the actual runway. But as soon as the airplane slowed down below hydroplaning speed, it was a code 5, Good. So we wanted to insure that when doing the pre-landing assessment, there was enough runway to account for both conditions and so we settled on Code 2, Medium to Poor, because that would give us enough available runway margin when stopping on greater than 1/8 of an inch of water on the runway or slush, and so I want to make sure we're very clear in our nomenclature and runway condition code assessments. If it's greater than 1/8 inch, it's not a code 3, it's a code 2. Regardless of whether or not there's reverted rubber on the runway, and if it is wet, and Slippery When Wet, then it's a code 3. So we have to be very, very careful in our definitions, especially for those that aren't in the room or on the webinar.

TALPA Team Member

- The Tower can provide current weather information such as moderate rain, where that rain might be located in relation to the runway/airport. The overall weather will be transmitted on the ATIS. The Tower cannot tell a pilot how much water is on the runway. The Airport Operator is responsible for this information and should be gathering that information by inspecting the runway.

Webinar

- An airport with Land And Hold Short Operations (LAHSO) saying that they report Wet to the tower and to their airlines, but outside the NOTAM system. This is due to workload and the fact that the NOTAM expires after 24 hours.

Facilitator

- Again, that is a timeliness of reporting issue. Maybe it will be wet for 24 hours, maybe it will not be wet for 24 hours. Airlines have made us aware that some airport operators, especially when reporting Wet, are letting NOTAMs remain in the system until they expire, just because they don't want to bother with cancellation. We need airport operators to report timely and accurate conditions at the airport.
- The airport operator has to determine how frequently, depending on the meteorological conditions, they feel they need to get out there and maintain and monitor the conditions. If a condition that was reported no longer applies to that runway, whether it's wet conditions or a winter contaminant, we need you to cancel that NOTAM as opposed to just letting it hang out there and providing inaccurate information.

Audience

- This has caused me quite a bit of concern, particularly since the AC came out saying how important it was that wet runway conditions, and an important part of the change was that it was going to be reported, and then a side letter said that it was "highly encouraged", but

we still never changed that AC that says that it is required. The takeoff scenario that you point out is fairly straightforward and easy if you see the runway when you are taxiing out, but this is talking about landing. So on landing, how does a crew coming in to land, know if that runway is wet or not? We have no idea. It could have rained, 2 seconds later a new ATIS came out with no rain; so you have no idea, unless you've been monitoring ATIS' over and over and over a long period of time, to even ask the question of whether it's wet or not. And since the definition now includes damp, it could have rained and hour and a half ago, and it's still wet. And you have no idea, now that the manufacturers have come out, particularly on the MD11, very restrictive conditions for wet runway, so our limit for crosswinds drops from 35KTS to 24KTS if it's damp. So I have no idea on how to apply that limitation if it's not reported as Wet. Additionally, the bigger concern with Slippery When Wet, is that if it's not reported as Wet, you won't report it as Slippery When Wet, so therefore we could be using an Runway Condition Code of 6 for a runway that's actually a 3.

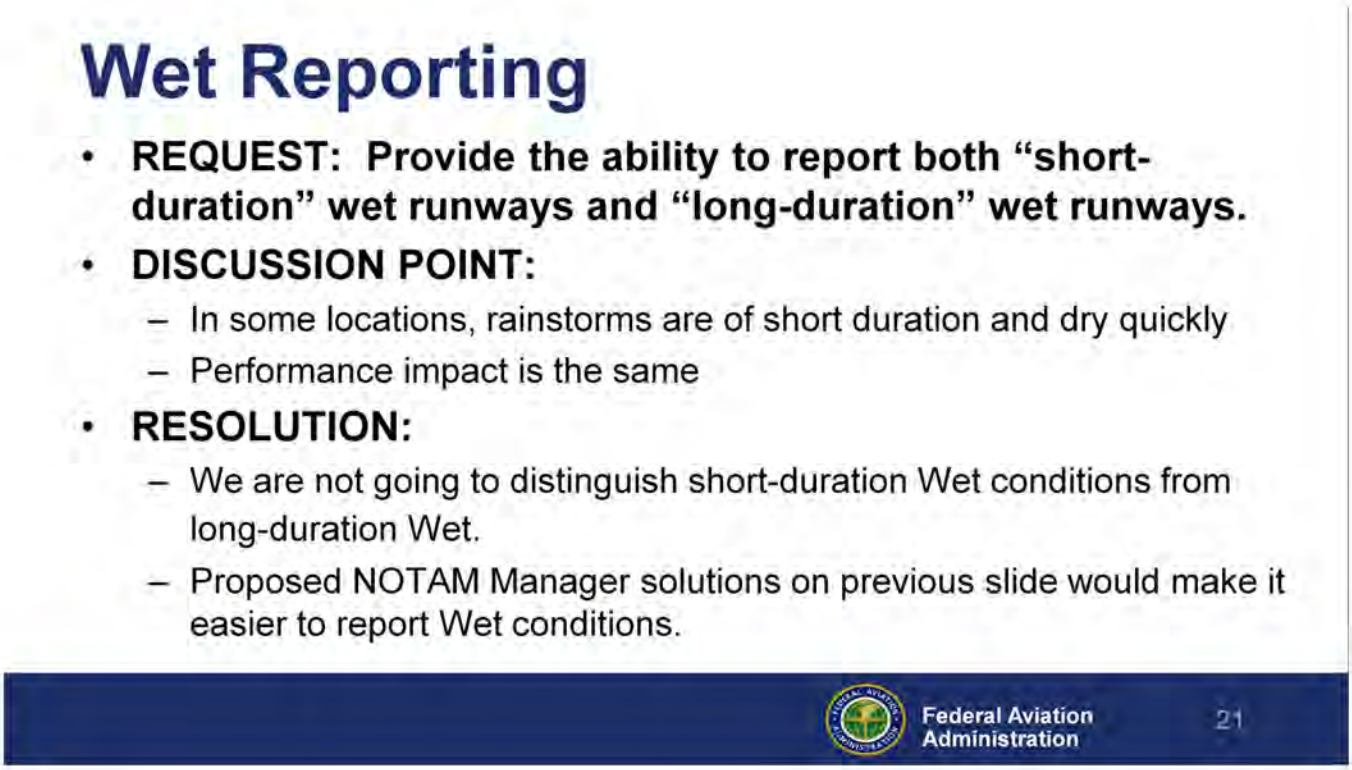
Facilitator

- In the guidance that we had put out, the alleviation for reporting Wet was only applicable to Wet, not Slippery When Wet, not Water, not winter contaminants, just the term Wet, which is defined by less than 1/8 inch. We're not done with Wet, that's probably going to be revisited down the road.
- It's been suggested to develop a list of airports showing who is/is not going to report wet, and advertise that list to air carriers. That way everyone would be aware of where they can and cannot expect that reporting.
- We're in favor of having those local discussions. If you operate at an airport, and you need this information, have a conversation at a management level at that airport, and express your needs for operating in and out of that airport.
- We would like more feedback from the southern tier airports and those that are in the high rain areas about what their issues are.
- Many airports typically bring in outside seasonal help for the winter season to run equipment. There was concern that during the warmer seasons, airports wouldn't have extra staff, and when it rained, there would be an expectation that staff would be reporting. Reporting would be expected, and it wouldn't be happening, and therefore was some implied liability. It's a valid concern from airport operator's standpoint.
- I think that Wet was looked at a little bit differently than winter operations because we're not out there attacking it like we are with winter contaminants, we're not out there physically removing Wet conditions. There were some assumptions made that we didn't understand until very much after the fact. This is not a dead topic, this is not the way we are going to continue to do business indefinitely; we want to fix this.

Audience:

- I think I owe a previous speaker a quick follow-up to clarify. I'm not talking about hydroplaning, as a matter of fact, most of the events I look at don't involve hydroplaning because the rainfall rate isn't nearly sufficient to get to, I mean the classic definition of

3mm. What I'm talking about is a Slippery When Wet with a constant Mu on the airplane of .16 across the whole speed spectrum, and if it's not hydroplaning, and not Slippery When Wet, then it's simply Wet, that's code 5, as per the 25-109C. There's a big range between .16 constant across the speed range and the variable Mu with speed defined in 25-109C. For example, the Sugarland one, for the airplanes I'm looking at, at the high speed it may be but .16, but then as it slows down, it increases. But it's consistently well below the 25-109C which results in longer distances, obviously. Then depending on what the manufacturers are assuming in their AFMs, some say the Wet is 25% greater distance than dry, That typically underestimates the reality by quite a bit. On those short runways it becomes very critical.



Facilitator

- We don't want to change our definitions or reporting features. If it's wet for a short term, you're going to have a NOTAM issued and it's going to be cancelled in a short duration; if it's long term you're going to have a NOTAM out there for a longer time – and it could go to 24 hours because that's the limit for airports to be able to manage these conditions when they exist for more than a few hours.
- You can go up to a 24 hour period before that NOTAM is going to expire, and if it's still wet beyond the 24 hour period, recall that NOTAM, reissue it, and you've got another 24 hours

Audience

- Is the FAA stuck on the 24 hour time period? Our biggest problem is not with them expiring, it's with them being left in the system after the condition which caused it initially to happen.
    - Dispatchers have to keep calling airports back to remind them to take old NOTAMs out.
    - As the time period from when the observation happened grows, the confidence level in what was being reported in that FICON lessens with each passing hour. This is especially true if precipitation is continuing to fall, I see a FICON that came out 5 hours ago but it's been snowing that one inch, I don't have confidence in that report from 5 hours ago, and I'm now forced to make that call.

Facilitator

- From an operational standpoint, there isn't a time you can base on any kind of logic or data, it's just arbitrary.
- Because this is a FICON, it can't be out there forever.
- If the condition changes, they should be cancelling it. That's something we could definitely put some stronger language in the airport's AC to highlight that issue and put some type of resolution verbiage in there.

TALPA Team Member

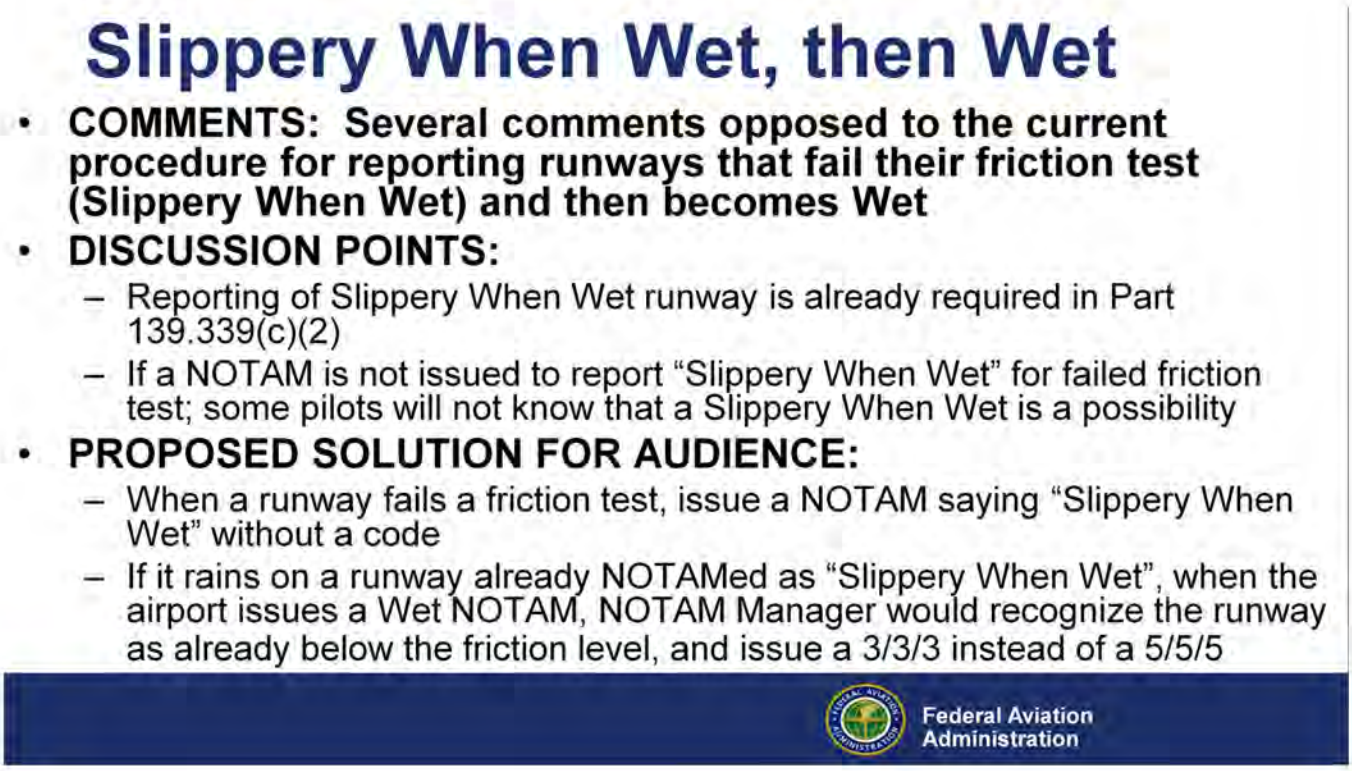
- I heard it a little bit differently – you want a current NAS. If it stopped raining and it's dry, cancel the NOTAM so that you have the normal condition and not the erroneous condition.
- The Air Traffic organization has something called the Top 5 Safety Initiatives and this year one of those is erroneous information that's in the NAS. There is a task force addressing it.

Audience

- We are dispatching or landing based on the information that is provided to us, it's not an inconsequential thing.
- We get weather forecasts every 6 hours; they're valid out to 24 hours. There is a set schedule that we can expect updates. If there is also a NOTAM that says Conditions Not Monitored, I as a dispatcher would love to see some hardline, if not guidance, mandates that give periods of time if the operator's going to be away that we shorten that time of validity, and that way we know what we're getting into. With Conditions Not Monitored or Conditions Not Reported we at least know going into it that it's an 18 hour old NOTAM and we're going to be calling the station.

Facilitator

- We are aware of those circumstances and it would be helpful to get that feedback as it's occurring. You can talk to Flight Standards; you can talk to us in Airports. If you land at an airport and find a circumstance that you weren't expecting, let us know and we would be happy to have a conversation with the staff at that airport.
- We have Airports' representatives across country – 9 regions divide up all the states – and lets have those conversations and try to fix the problems locally.
- The guidance we put out there has all the information, but if we're not aware of a problem until it exists, that's when we can go back and try to address it if we have enough information. The guidance is very specific on how you should be doing things; a standardized approach to these types of scenarios, and if someone's not doing it and we're not getting feedback in advance of an issue, we're finding out about it when we go out to investigate an incident, accident or complaint. Then we're trying to resolve it at that time, but it would be more functional if we can do it in advance of an actual problem.



Facilitator

- Various comments since implementation have highlighted the concerns and opposition on how this situation is applied across the National Airspace System
- One of the primary concerns were automatic application of Slippery When Wet RwyCC 3/3/3 for all runway thirds when perhaps only one of the runway thirds are impacted
- Industry air carriers and airport operators favor a capability to apply Slippery When Wet to the third of the runway impacted
- The overall goal is to pursue a NOTAM system fix for the Slippery When Wet process by changing the business rules for the application
- This would involve publishing a Slippery When Wet NOTAM, without RwyCC, as it applies when the situation is in effect
- During periods when contaminants are associated with Slippery When Wet, the NOTAM system business rules recognizes the Slippery When Wet and publishes the NOTAM with the appropriate RwyCC
- The airport operator will be able to downgrade the RwyCC as necessary based on Slippery When Wet and friction values
- This business rule change should eliminate current cases of airports having a Slippery When Wet 3/3/3 NOTAM published for a dry surface and when actual "Wet" conditions are observed and NOTAMed creating a conflict of RwyCC of

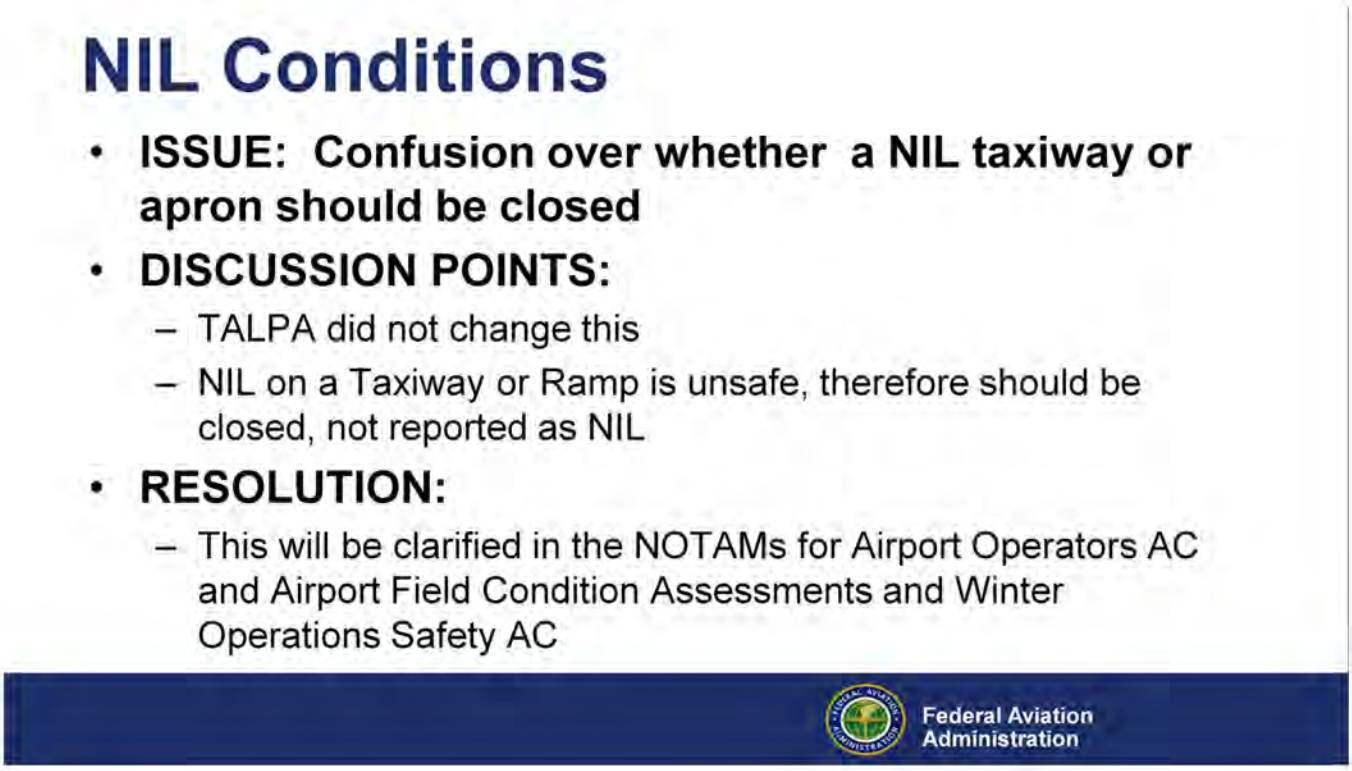
5/5/5

TALPA Team Member

- Should we have a code for when it fails the friction test? The friction testing process can determine a failed friction test in 500 foot increments. Therefore, if two 500 foot sections of pavement fails, it's failure could lead to a Slippery When Wet scenario. The same could be applied to pavement polished in middle of a runway.
- You could have situations where you may have dry pavement and still be slippery in certain thirds. Would the terminology Slippery When Dry be a solution?

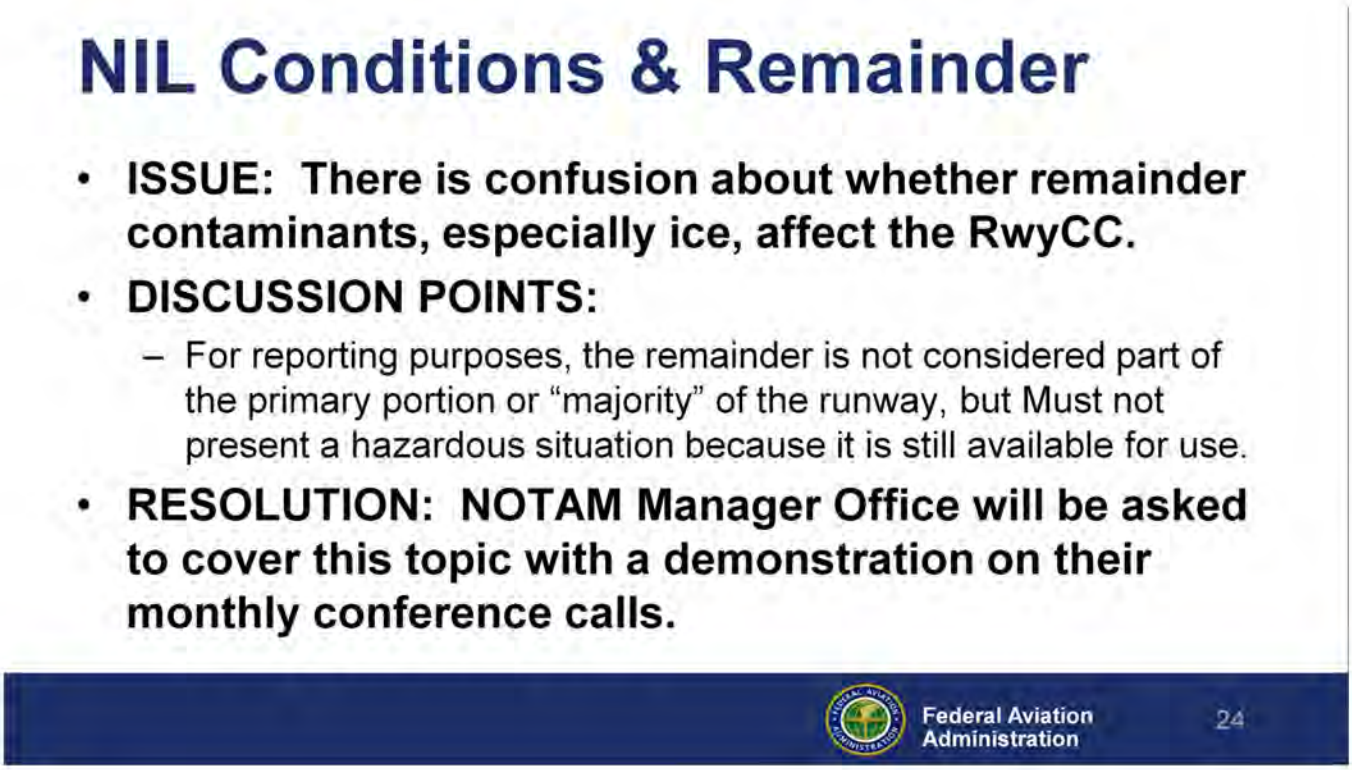
Facilitator

- With industry concerns on how Slippery When Wet is applied today, it warrants a more thorough review to look at identifying runway(s) that fail their friction tests with the NOTAM Slippery When Wet, but without a RwyCC. This would clarify the situation associated with example such as micro texture, rubber deposits, groove failure, etc. So when contaminants are observed, utilizing a system fix to detect when this is occurring will ensure the proper NOTAM is published according to the application covered earlier.



Facilitator

- Reporting NIL conditions on taxiway(s) or aprons was not changed by the implementation of TALPA
- Previous changes to the Winter Operations AC back in 2008 addressed NIL reporting and the action of closing surfaces when a NIL assessment is made
- To avoid any more misconceptions on the application of NIL reporting, we will revisit the language in the AC and clarify where needed

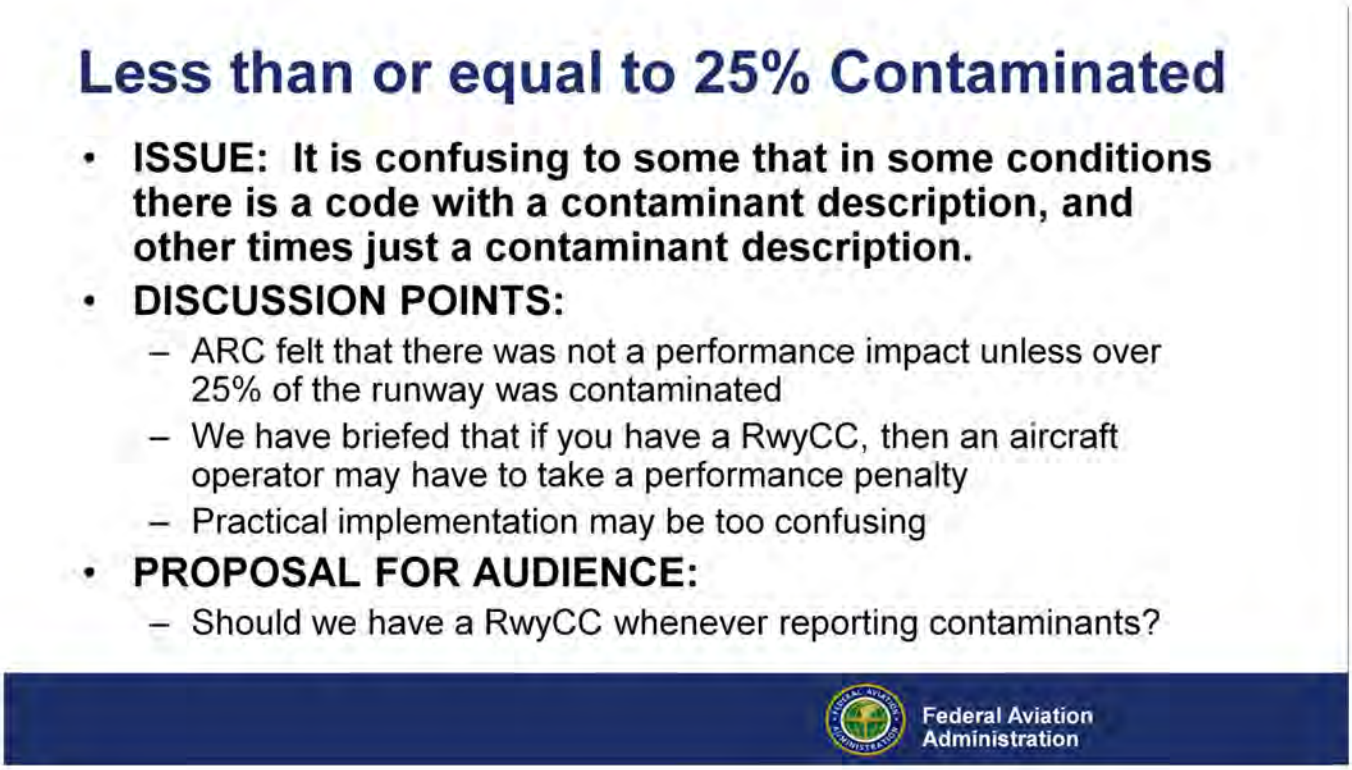


Facilitator

- Feedback received via the TALPA webpage from various regions, to include Alaska, had airport operators and other stakeholder seeking further guidance on remainder contaminants
- Does the remainder have any impact on the determination of a RwyCC where the contaminant type is mostly ice?
- For any runway assessment that leads to RwyCCs, the remainder is not considered as part of the primary portion or "majority" of the runway that will be used for coding
- The RwyCC will be based solely on the cleared width, or total width for coding without consideration for contaminant type, width, or depth in the remainder portion
- Airport operators, as well as aircraft operators, should be mindful that the portion that is being deemed as the "remainder" must not present a hazard because it is considered usable pavement
- Therefore, it should be safe to the degree aircraft operators will be able to use without being overly concerned about any potential hazards in the remainder portion
- Airport operators have been getting additional information on this topic, once it was revealed early on, through the monthly NOTAM telecon where airport operators have the capability to highlight issues and concerns at their airports that

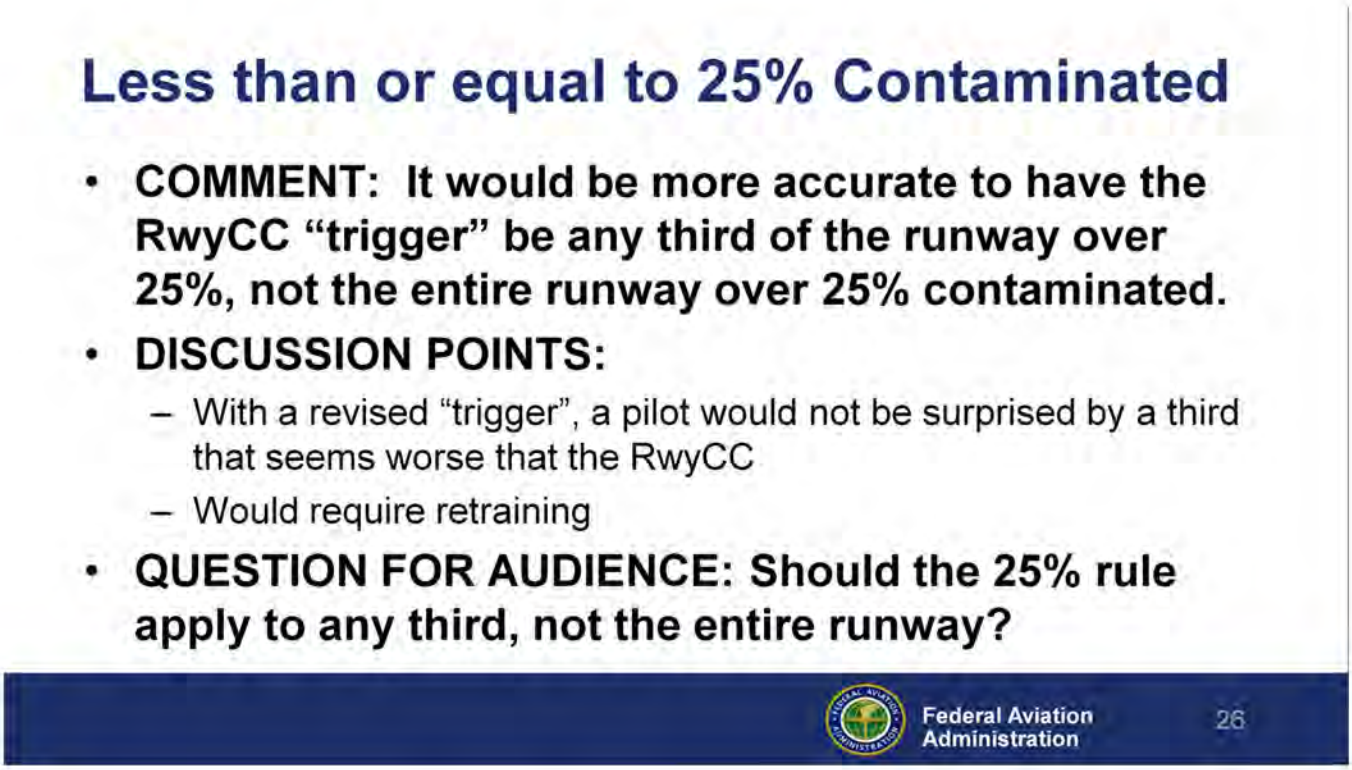
may have implication across the NAS

- This topic is one that came up and was addressed, and we wanted to address it once more to ensure aircraft operators are aware of how it is being applied



Facilitator

- The 25% rule is what we're looking at to determine whether to stick with that approach and train it out more and provide more guidance
- Feedback mostly from the aircraft operator have raised the possibility of giving a code any time you have contaminants
- There are pros and cons for this approach - if you get more coding you can end up in a more restricted operating environment
- Typically, normal conditions are not reported in the NOTAM system; this prevents saturating the NOTAM system with normal condition reporting
- Going outside of the NOTAM system for reporting normal conditions was raised as an option, but development of a different system is unlikely when the current NOTAM system is meeting expectations
- AFS is conducting outreach and awareness to the pilot community on the performance penalty aspects where it's associated with RwyCCs
- The confusion some aircraft operators are experiencing with accepting or not accepting runway(s) with or without RwyCCs will continue to evolve as the TALPA process matures



Facilitator

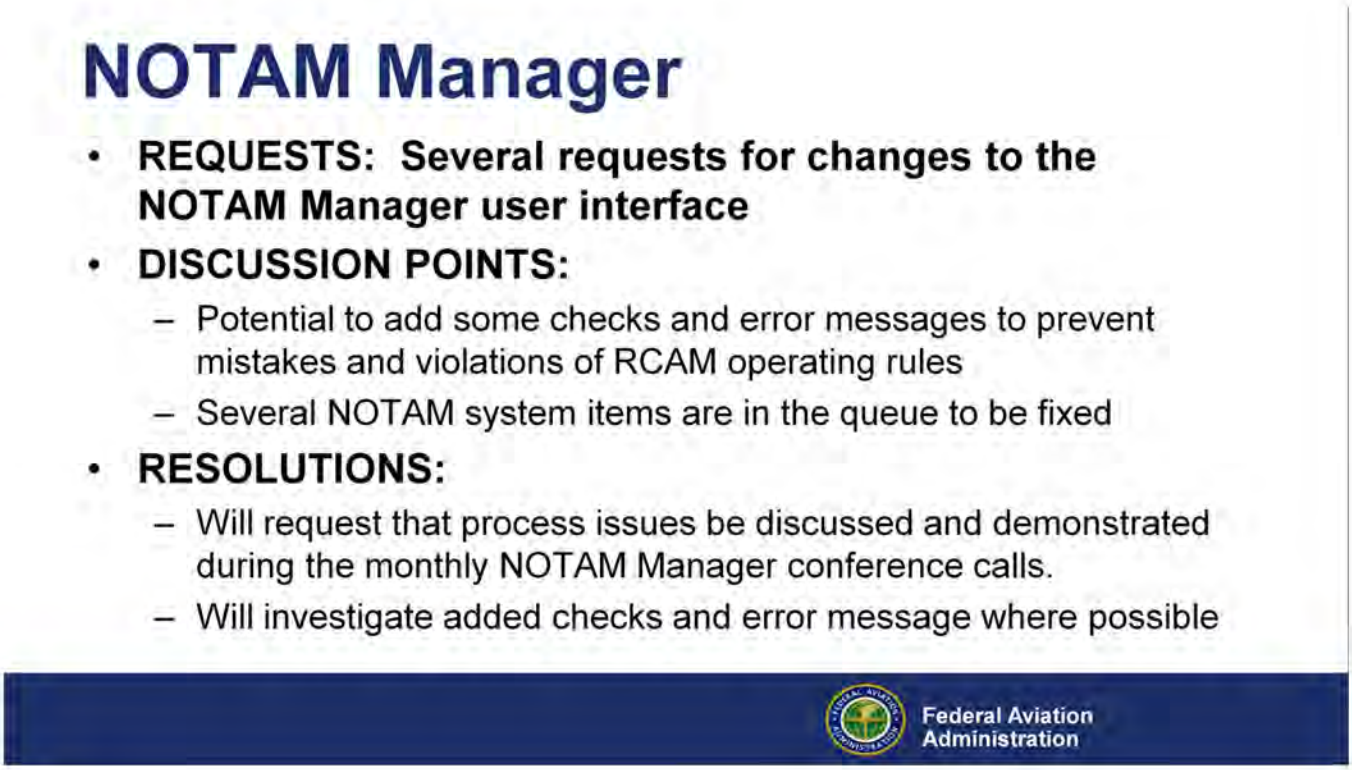
- We're going to evaluate that, particularly from an aircraft performance standpoint, and see what that means.

Audience

- This question is fundamentally different than the one we were discussing before. This is what ICAO's doing. If any one third of a runway has 25% or more, then it gets a code, not 25% of the whole runway.

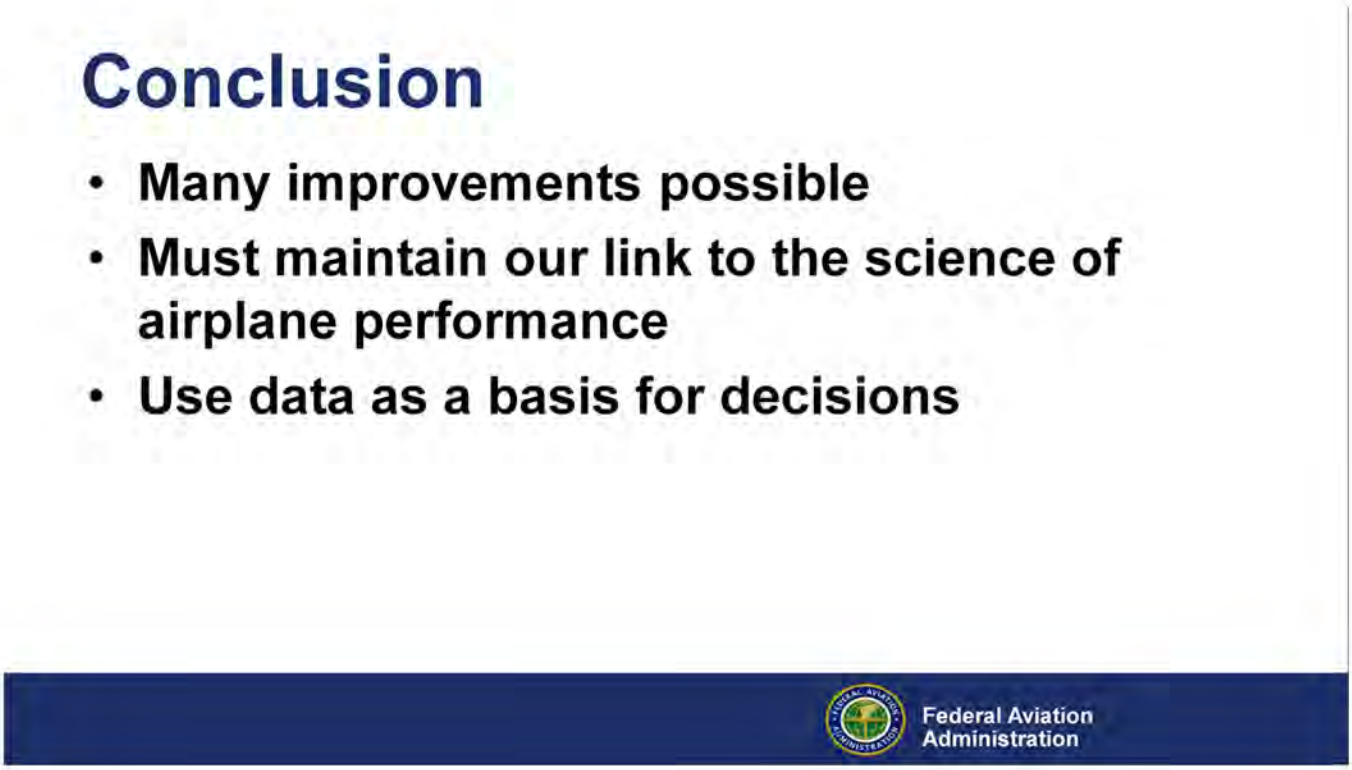
Facilitator

- That is something that is being considered because of the fact that we are getting NOTAMs with no codes. It's becoming a problem because some pilots are interpreting that as "there's no information" or "it's an unsafe runway."



Facilitator

- We've had a lot of requests to change the interface:
    - When an airport is entering information they would like to get error messages as they are walking through the process. Right now in some cases it's set up so that you enter all your information and when you hit "Submit", you find out that you made an error. We've gotten feedback that it should give alerts along the way, so they are taking a look at that to see if that's possible.
    - A lot of the items that we've talked about, we've shared with the NOTAM Office. They have a list of items that need to be done, but obviously these things have to be done in accordance with policy and guidance changes. Also there is funding involved, and then programming time, so it takes quite a bit of time to make these changes.
    - The monthly NOTAM Manager conference calls are a great resource for airport operators to communicate their concerns, to discuss issues where there is confusion, or complex issues within the process that may not be understood. Those calls are open to any NOTAM system user and it's a very open and frank discussion about what the airports are seeing, and it's a great way to communicate some of the changes.



Facilitator

- We've had discussions on a lot of different items that may or may not be areas for improvement.
- We don't want to just reactively make a change – we want to evaluate it and gather whatever data is necessary to determine whether it's going to be a beneficial change

QUESTIONS ?