



TETERBORO AIRPORT – CHIEF PILOT MEETING via WebEx

May 29, 2019 at 13:00 EST

Audio call 240-454-0879 meeting # 800 131 929

Teterboro Airport – Chief Pilots Meeting

- Please mute your phone.
- During the presentations please submit any questions through the 'chat' feature on the WebEx or email smarsh@panynj.gov

TETERBORO AIRPORT CHIEF PILOTS MEETING FALL 2018 AGENDA

- 1. Airport Activity – Scott Marsh**
- 2. 2018-2019 Winter Season Summary – John Kastens**
- 3. TEB Airport Construction – Scott Marsh**
- 4. Area Airport Construction – EWR, JFK, LGA – Ralph Tamburro**
- 5. Runway Safety Action Team (RSAT) Brief – TEB 2018 – Gary Palm**



Airport
Teterboro

THE PORT AUTHORITY OF NY&NJ

Teterboro Airport – Airport Activity

- Full Scale Emergency Exercise – June 1, 2019, 9am – noon
- LED Airfield Lighting transition
- ARFF Truck with High Reach Extendable Turret (HRET) in service
- RUNWAY 19 - DALTON TWO Departure
- Reminder to notify your FBO of choice, your flight schedule





Winter 2018 – 2019 Summary

May 29, 2019

Overview 2018-2019

- Snow Events 12
- Freezing Rain Events 3
- **Total Precipitation Events** 12

- Snow Total YTD 20.6 inches

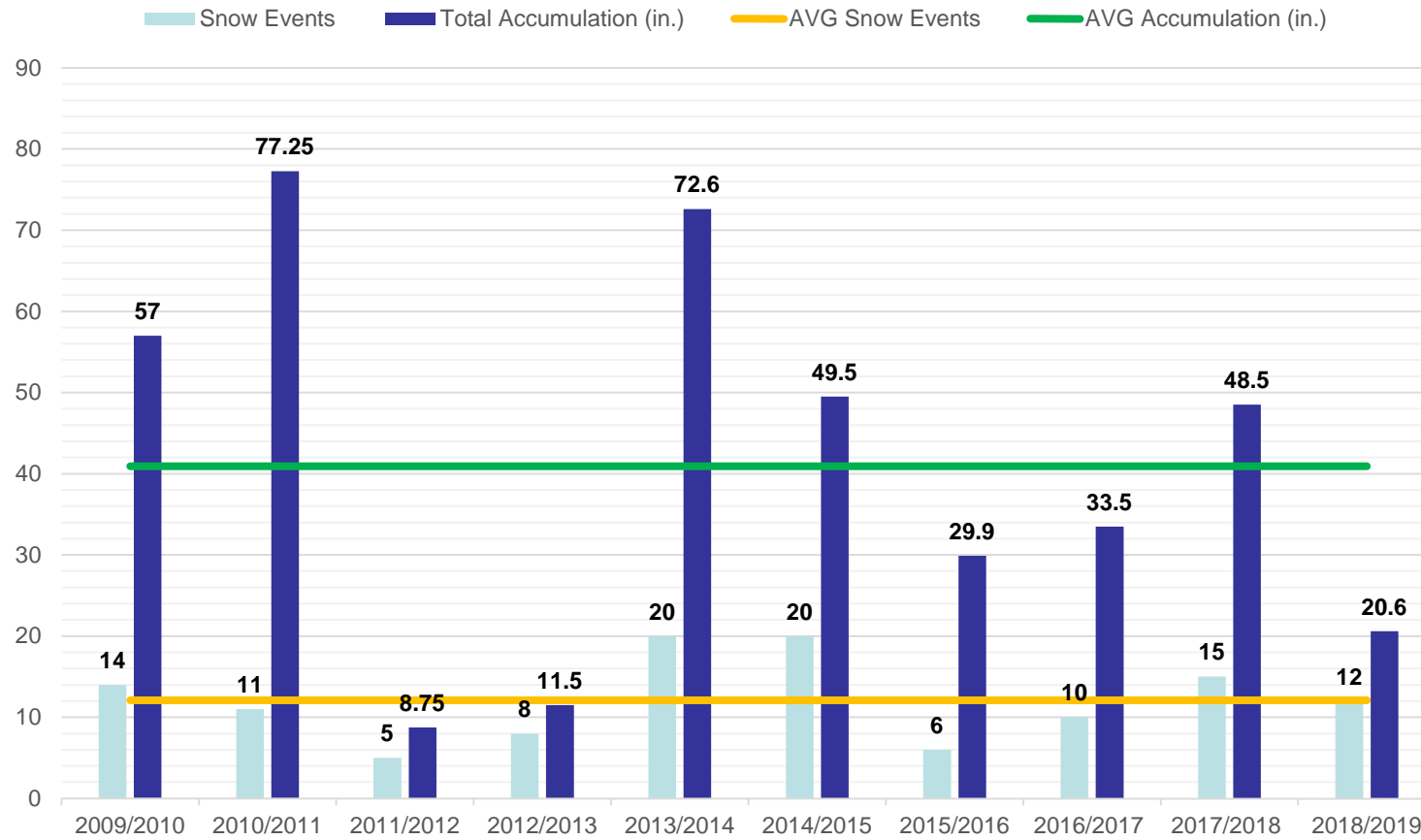
- Total Liquid Chemical 190,605 gallons
- Total Solid Chemical 0 tons
- Total Sand 0 yards

10-Year Comparison

Season	Snow Removal Events	Total Snow Accumulation
2009 – 2010	14	57.0
2010 – 2011	11	77.25
2011 – 2012	5	8.75
2012 – 2013	8	11.5
2013 – 2014	20	72.6
2014 – 2015	20	49.5
2015 – 2016	6	29.9
2016 – 2017	10	33.5
2017 – 2018	15	48.5
2018 – 2019	12	20.6

10-Year Comparison

Snow Events






Teterboro Airport

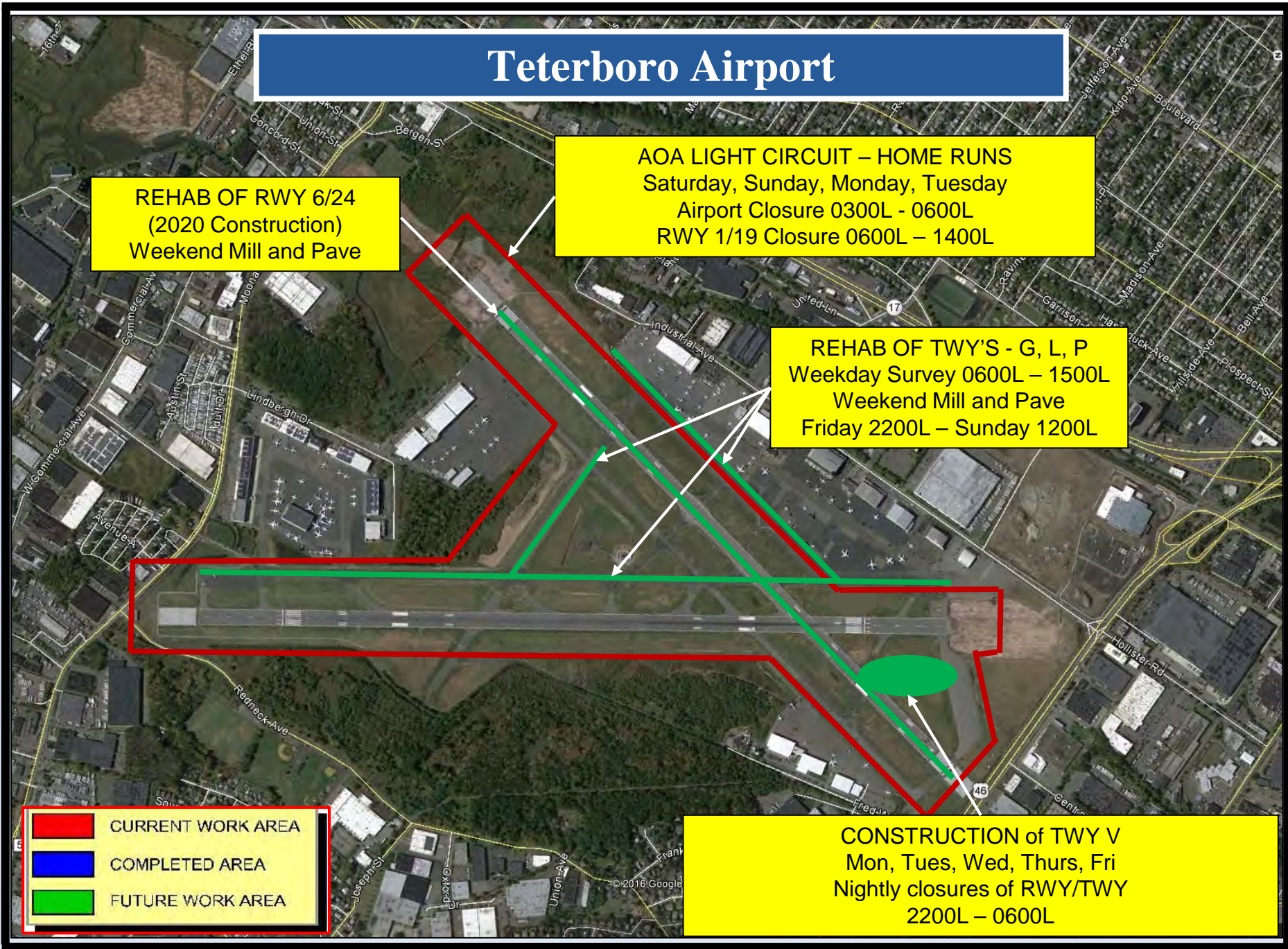
REHAB OF RWY 6/24
(2020 Construction)
Weekend Mill and Pave

AOA LIGHT CIRCUIT – HOME RUNS
Saturday, Sunday, Monday, Tuesday
Airport Closure 0300L - 0600L
RWY 1/19 Closure 0600L – 1400L

REHAB OF TWY'S - G, L, P
Weekday Survey 0600L – 1500L
Weekend Mill and Pave
Friday 2200L – Sunday 1200L

	CURRENT WORK AREA
	COMPLETED AREA
	FUTURE WORK AREA

CONSTRUCTION of TWY V
Mon, Tues, Wed, Thurs, Fri
Nightly closures of RWY/TWY
2200L – 0600L



NY AIRPORT Construction 2019

Ralph Tamburro

Planned closures for 2019

JFK

Runway 13L/31R closed April 1st through Nov 15th

Project entering second phase, possible acceleration of phases

Runway in concrete
200' wide

high speed exit on 31R

Allow A380 to utilize 31R for arrivals

Rehabilitation of Runway 13L-31R & Associated Taxiways Location and Scope

Runway 13L-31R

Length = 10,000 feet

Width = 150 feet



Planned runway closures for 2019

EWR

Runway 11/29 rehab

Project is underway, 21 day continuous closure planned for end of August. Intersection work will require shortening of each runway during an extended weekend closure

Terminal A project underway, limiting available ramp space



Planned runway closures for 2019

LGA

Runway 4/22 closed for rehab
Nightly and extended weekend
closures (weather dependent)

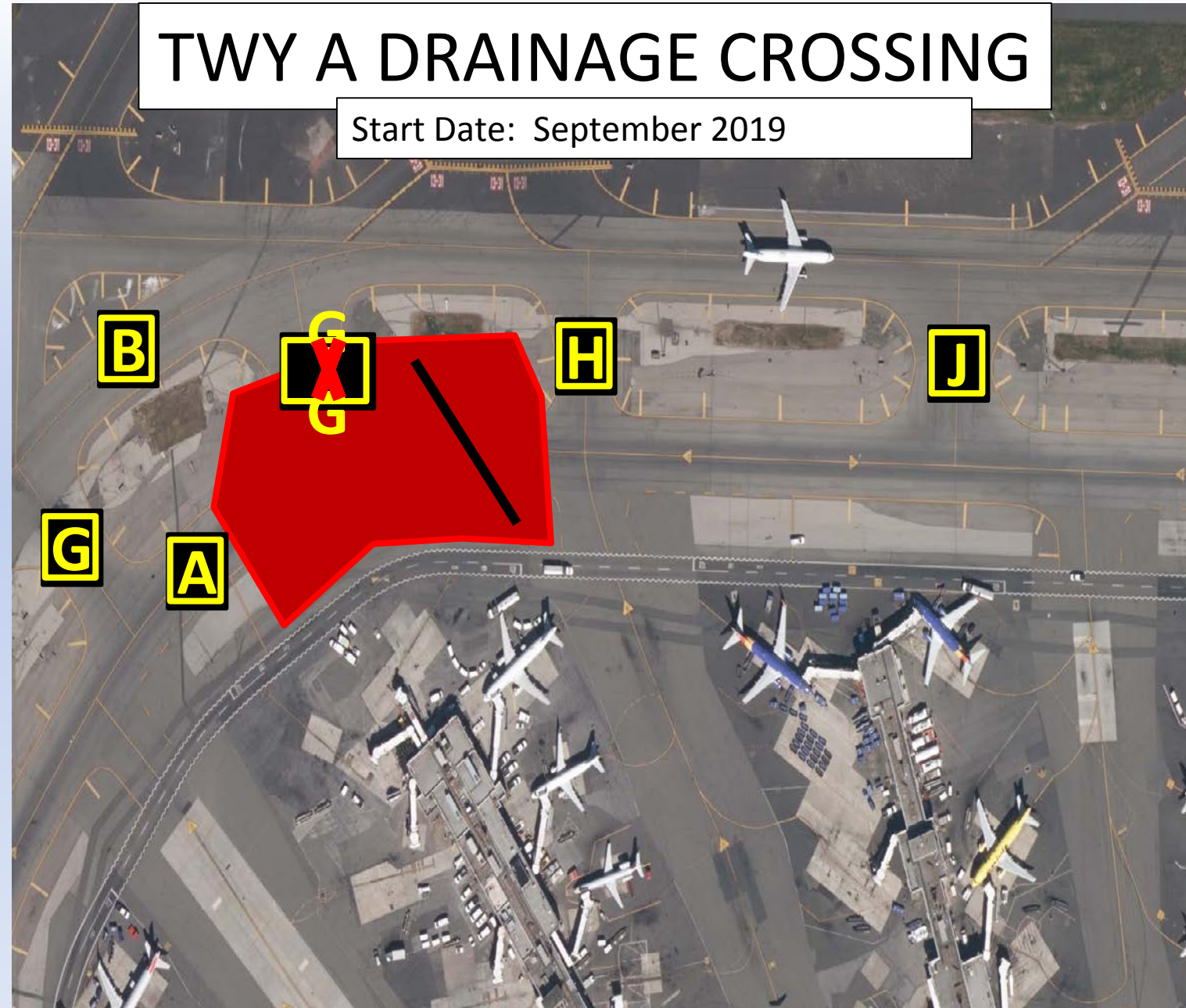
Terminal construction through
2024

Taxiway A project



Taxiway A closure between H and G

This closure is planned for an 8 week period beginning in September. During those weeks you can expect arrival restriction on particular configurations and expect non-standard flows on the surface.



Procedure Overview

Updates

- ❑ TEB RNAV Transition to ILS RWY 19
- ❑ TEB RNAV (GPS) RWY 19
- ❑ TEB RNAV (GPS) RWY 24



TEB RNAV (GPS) RWY 19 Offset

Description and Benefits:

- Avoids overflying Hackensack Hospital
- Waypoints will be coded
- Can be used in VFR and IFR conditions

Environmental Review:

- EA Funding approved and the notice to proceed is being prepared

Scheduled Publication Date:

- March 26, 2020



TEB RNAV Transition to ILS RWY 19

Description and Benefits:

- RNAV procedure designed to avoid impacts from increased MVAs due to assumed adverse obstructions; decouples TEB/CDW/MMU

Environmental Review:

- Environmental Review initiated

Scheduled Publication Date:

- 12/05/2019
- Dates pushed out due to furlough causing backlog



TEB RNAV (GPS) RWY 19

Description and Benefits:

- Designed to Decouple TEB/CDW/MMU
- Mirrors ILS RWY

Environmental Review:

- Environmental Review initiated

Scheduled Publication Date:

- 12/05/2019
- Dates pushed out due to furlough causing backlog



TEB RNAV (GPS) RWY 24

Description and Benefits:

- Decouples TEB and LGA

Environmental Review:

- Environmental Review initiated

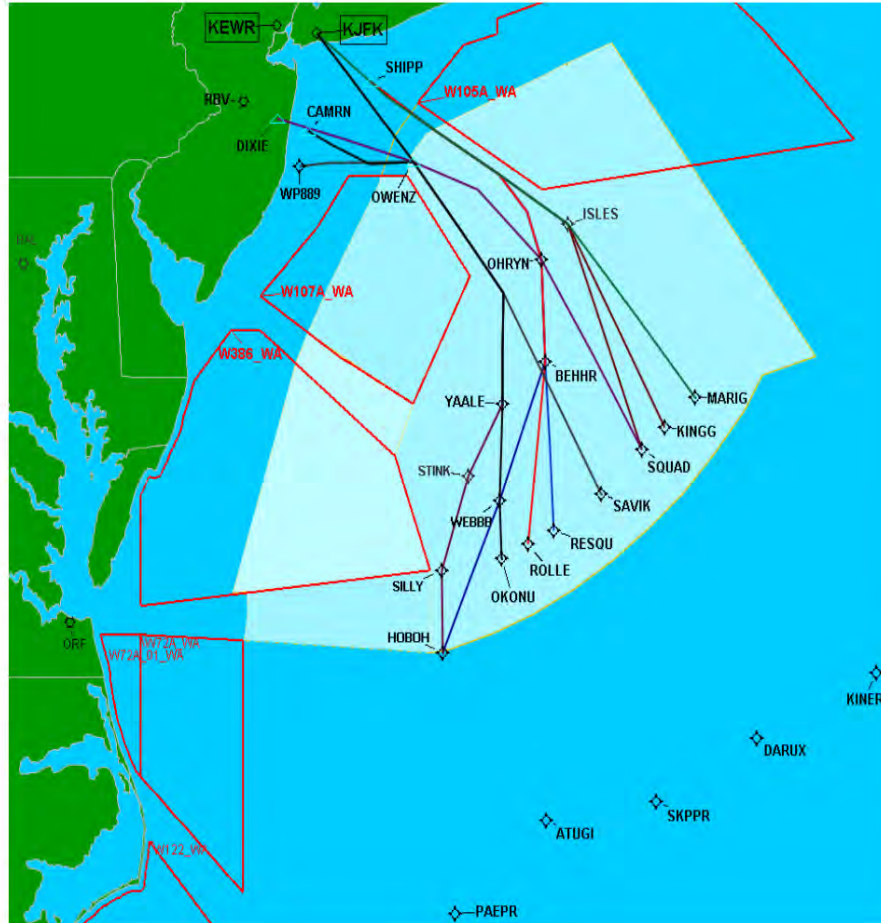
Scheduled Publication Date:

- 12/05/2019
- Dates pushed out due to furlough causing backlog



PBN Route Structure in ZNY Offshore Airspace

New Implementation Date – Oct 10, 2019



Operational Objectives:

- Redesign airspace and route structure to enhance efficiency and capacity in NY offshore airspace
- Enhance route options during SWAP
- Segregate NY Metro arrival and departure flows
- Segregate overflight traffic from NY Metro arrivals and departures

Expected Outcomes:

- Increased use of offshore airspace capacity (**throughput**) via additional sector and segregation of flows in tight airspace between Warning Areas.
- Enables greater use of offshore route options during SWAP
- Less vectoring/holding offshore
- Reduced use of MIT restrictions & ground delays for EWR/JFK depts

Target Date: Q1 CY20

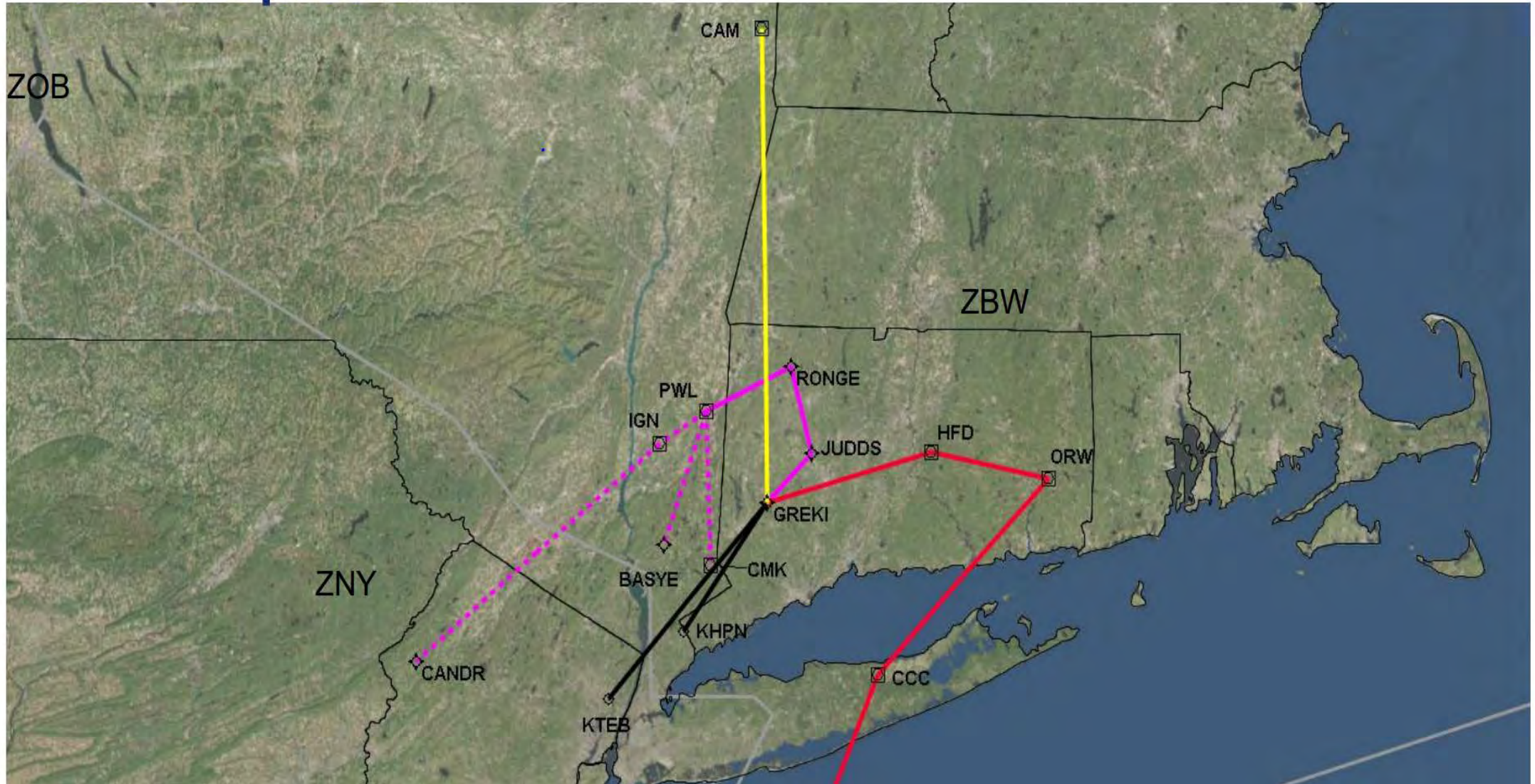
TEB/HPN High Performance Escape Route

During SWAP/other constraints for a/c that can perform climb

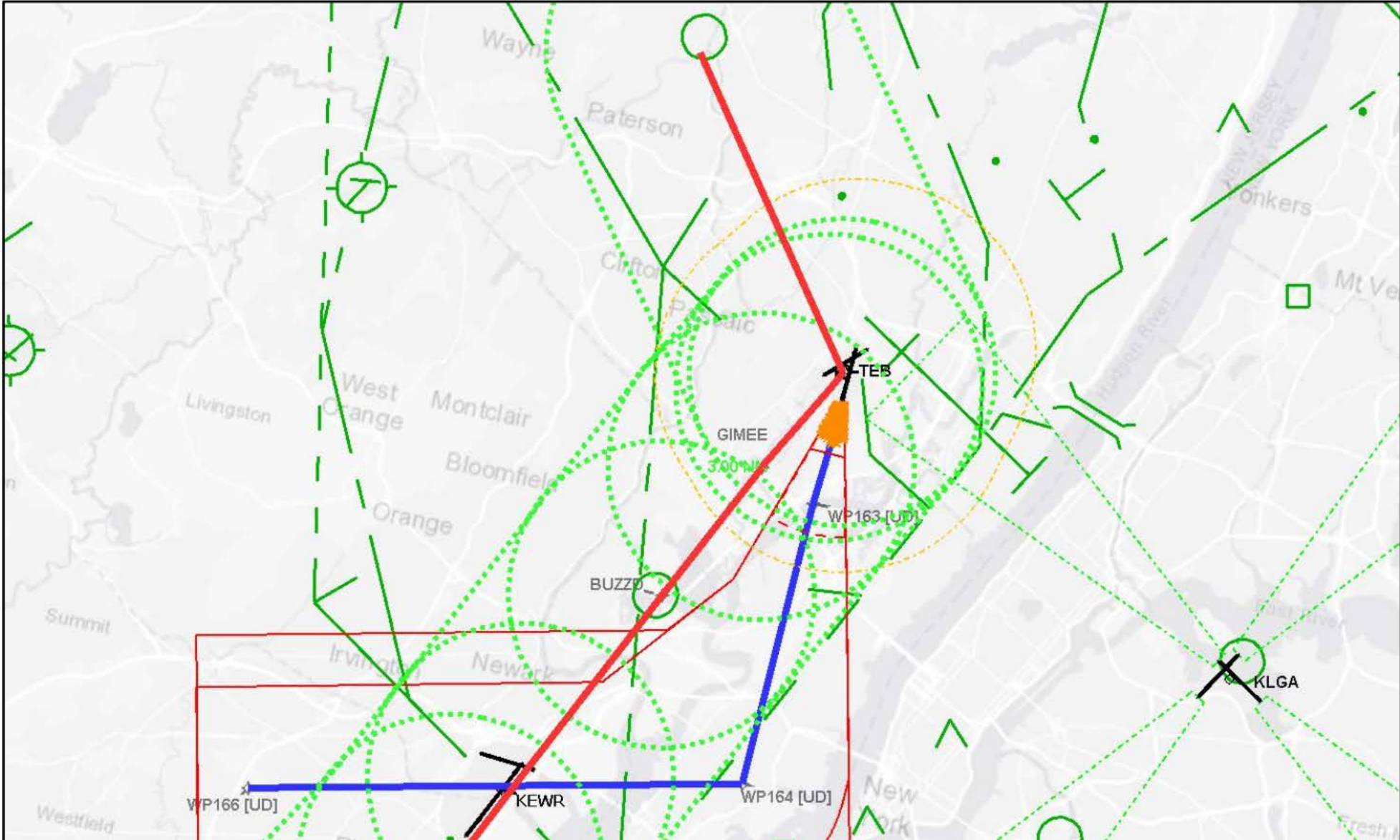
- **TEB/HPN depts accepting longer track miles identified by NBAA thru ATCSCC**
- **Route options**
 - N90 delivers aircraft over GREKI @ 170. (ZBW accepts normal GREKI traffic @ 160)
 - ZBW route options
 - Westbound: GREKI2 Playbook (GREKI JUDDS CAM Q822)
 - Southbound offshore: GREKI HFD ORW CCC EMJAY.J174
 - Southwest/South inland: GREKI JUDDS RONGE PWL
 - ZNY route options
 - J75 traffic – PWL..CMK.J75
 - J48 traffic – PWL..BASYE.Q448.PTW.J48
 - J6 traffic – PWL..BASYE.Q406.BWZ.J6
 - J80 traffic – PWL..IGN.Q480.AIR.J80/J110
 - J60/J64 traffic – PWL..IGN.Q480.CANDR.J60 (or DANNR..RAV.J64)
 - ZDC route option
 - EMJAY.J174 (AOA FL400)
- **Not to exceed 8 TEB/HPN departures per day**

TEB/HPN High Performance Escape Route

Route Options



Notional TEB RW19 Departure



FY2019 Runway Safety Action Team (RSAT)

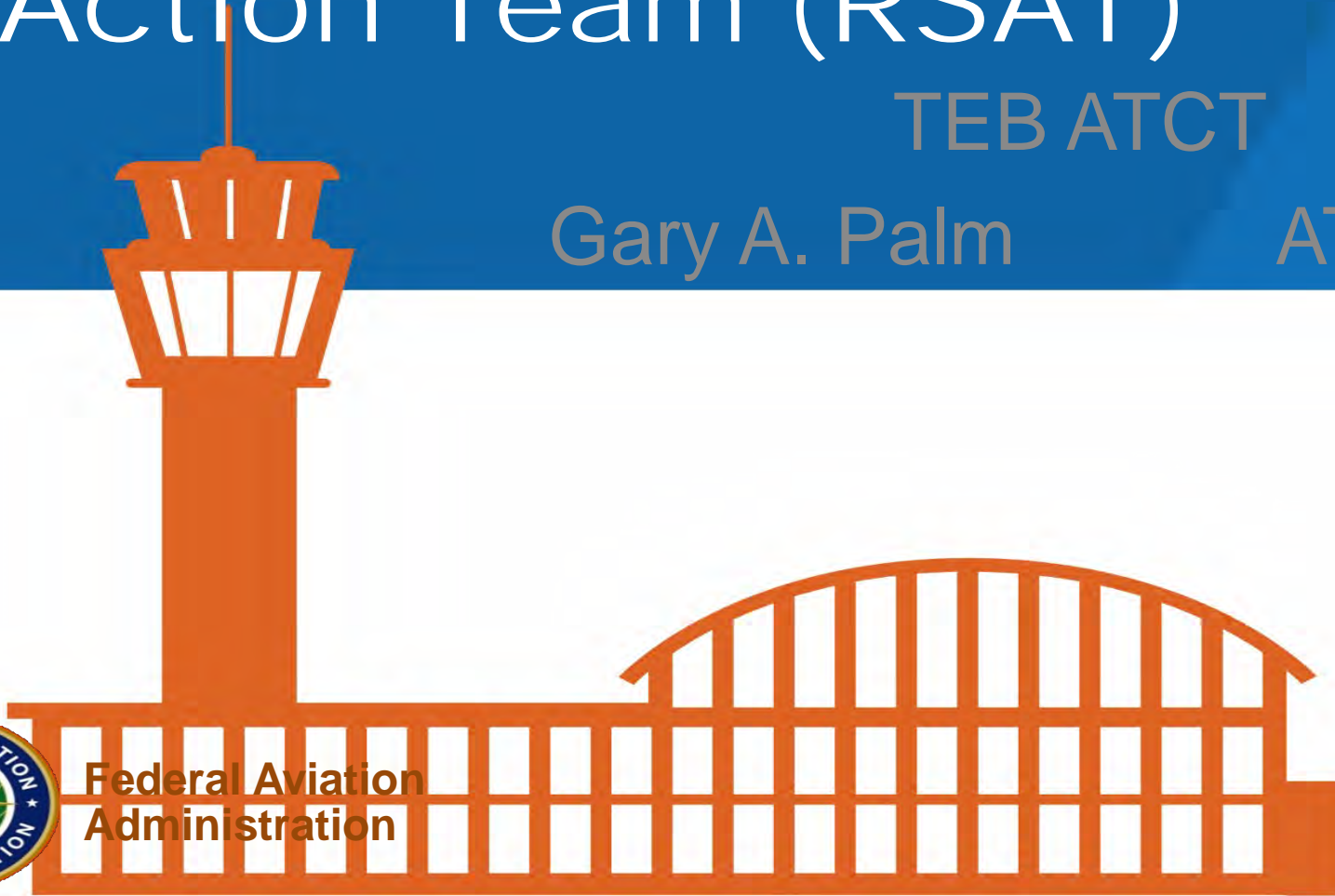
TEB ATCT

Gary A. Palm

ATM TEB



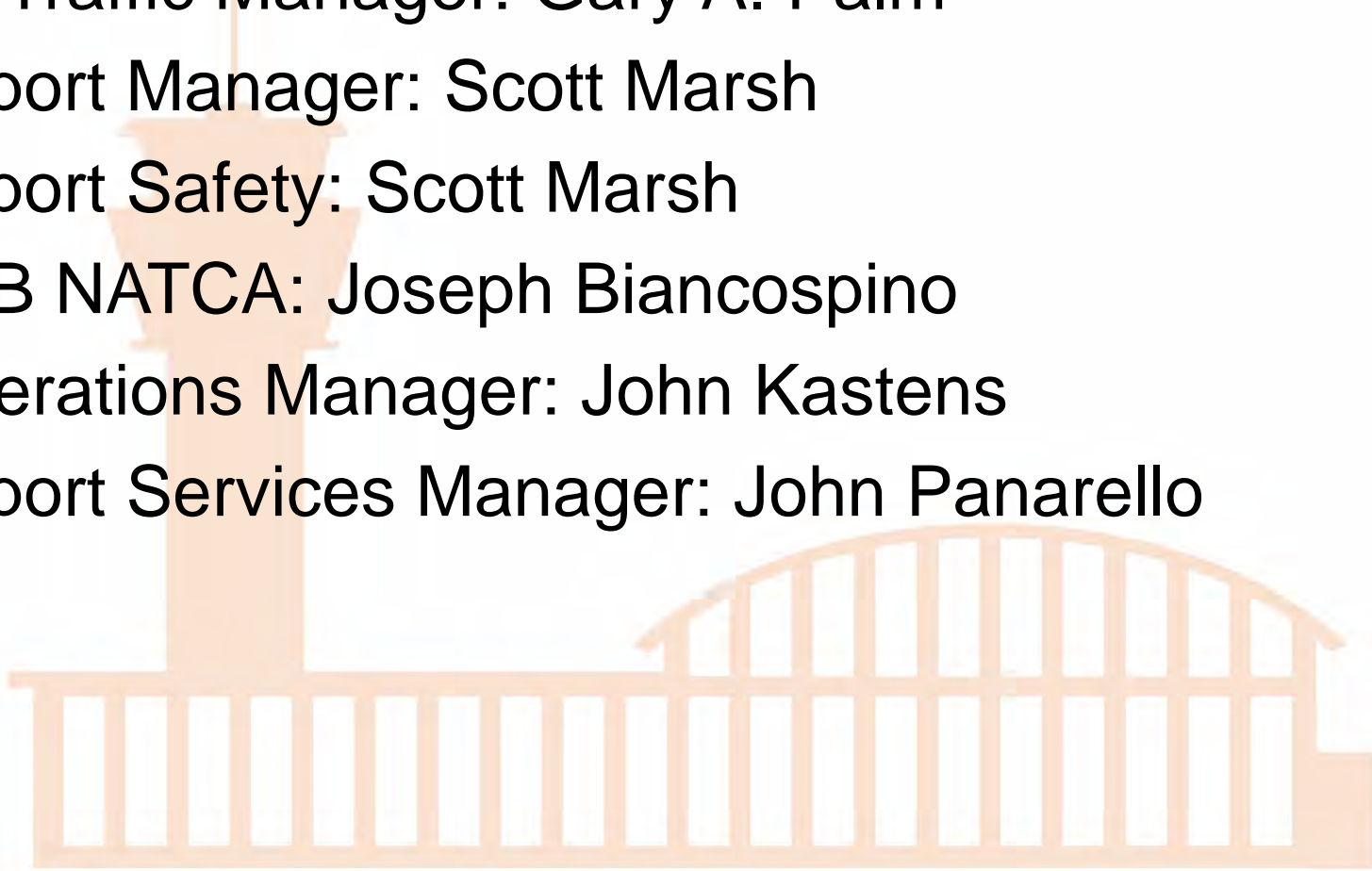
Federal Aviation
Administration





Introduction

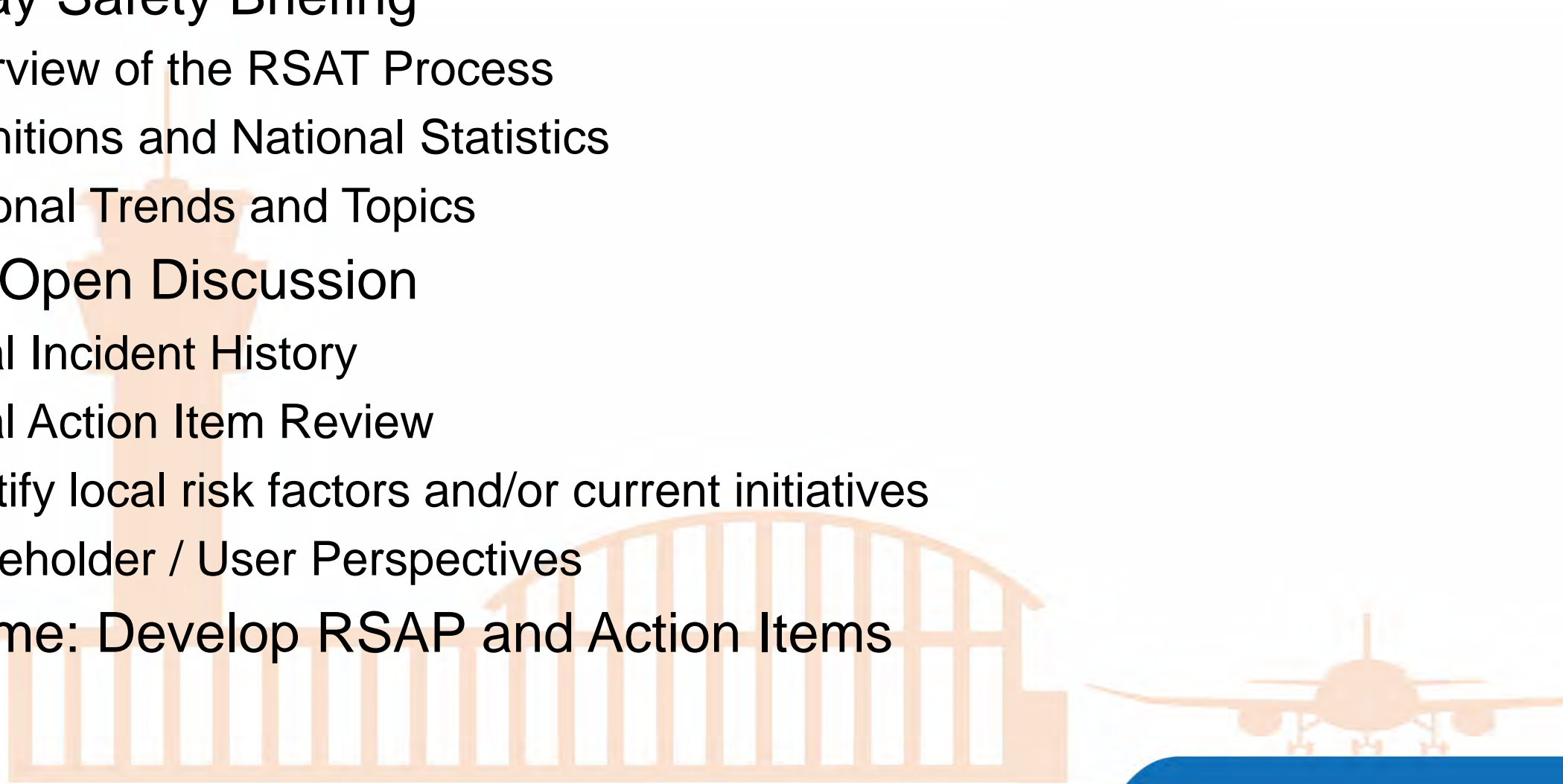
- Welcome to the Runway Safety Action Team (RSAT)
 - Air Traffic Manager: Gary A. Palm
 - Airport Manager: Scott Marsh
 - Airport Safety: Scott Marsh
 - TEB NATCA: Joseph Biancospino
 - Operations Manager: John Kastens
 - Airport Services Manager: John Panarello





Agenda

- Runway Safety Briefing
 - Overview of the RSAT Process
 - Definitions and National Statistics
 - National Trends and Topics
- RSAT Open Discussion
 - Local Incident History
 - Local Action Item Review
 - Identify local risk factors and/or current initiatives
 - Stakeholder / User Perspectives
- Outcome: Develop RSAP and Action Items





RSAT Process Overview

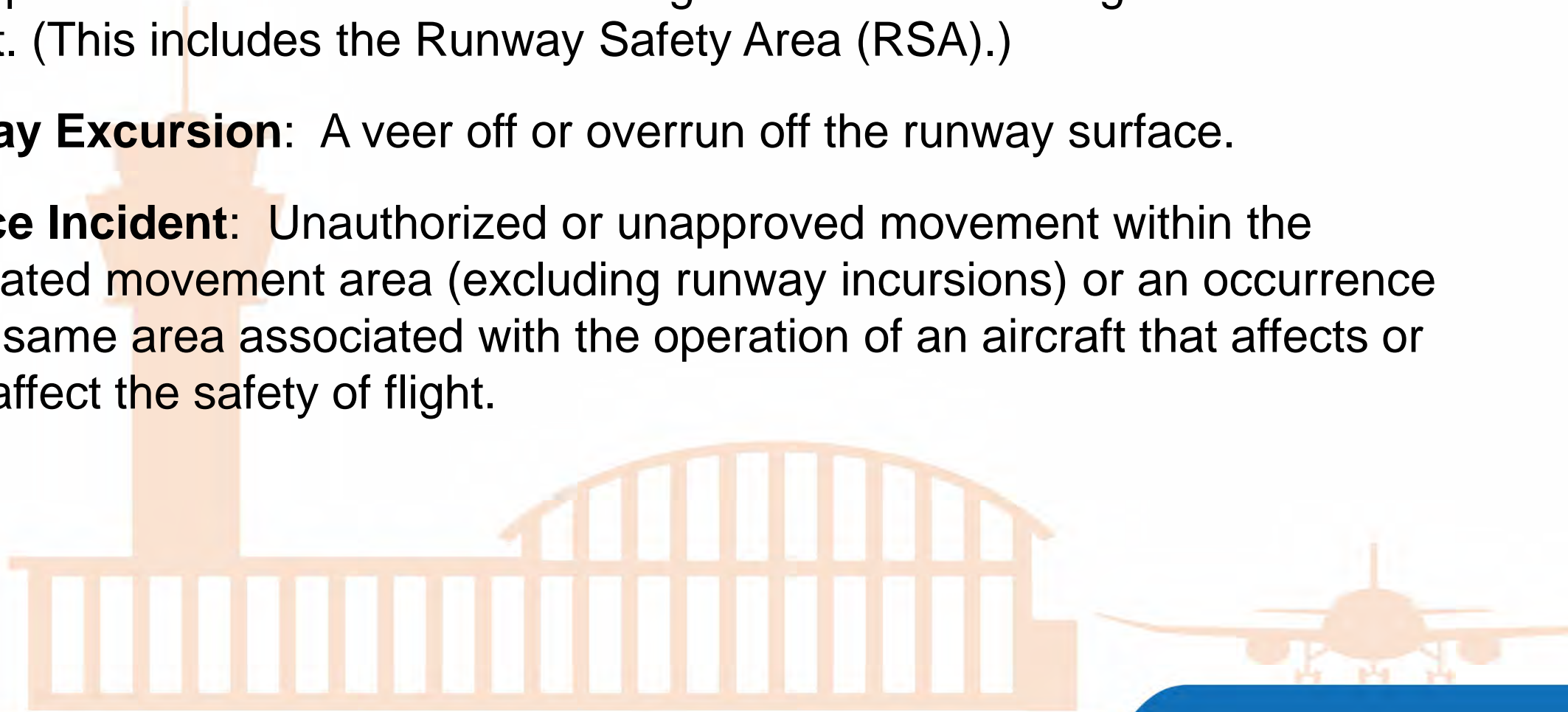
- Purpose: To bring local stakeholders together at least once per year to identify and mitigate the risks of significant surface events at your airport.
- Process:
 - Review Incident History
 - Review Action Item History
 - Discuss Current Concerns
 - Create FY2018 Runway Safety Action Plan and Action Items





Definitions

- **Runway Incursion:** The incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft. (This includes the Runway Safety Area (RSA).)
- **Runway Excursion:** A veer off or overrun off the runway surface.
- **Surface Incident:** Unauthorized or unapproved movement within the designated movement area (excluding runway incursions) or an occurrence in that same area associated with the operation of an aircraft that affects or could affect the safety of flight.





Definitions

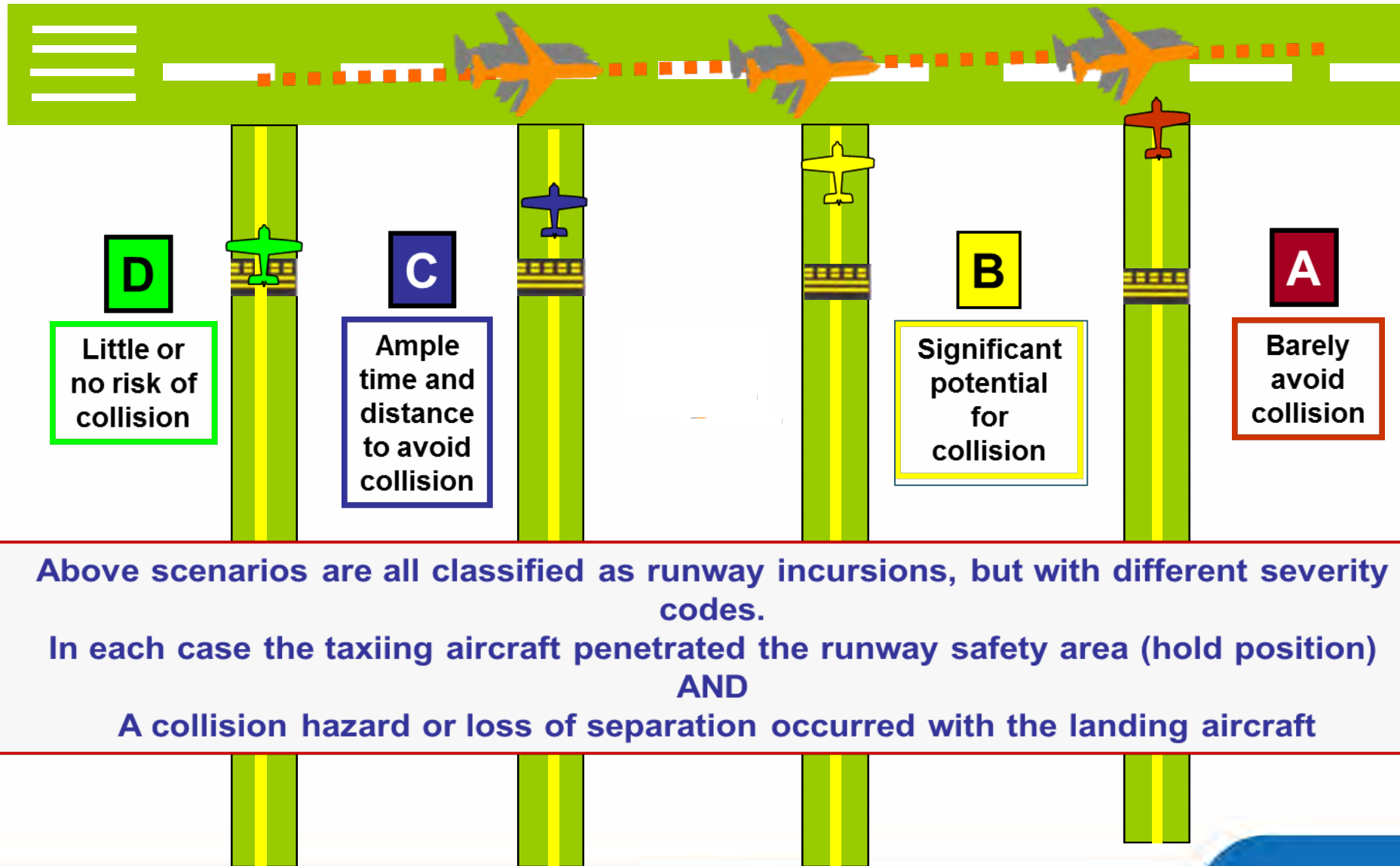
Types of Surface Events:

- **Operational Incident (OI)** – A surface event attributed to ATCT action or inaction.
- **Pilot Deviation (PD)** – A surface event caused by a pilot or other person operating an aircraft under its own power.
- **Vehicle or Pedestrian Deviation (VPD)** – A surface event caused by a vehicle driver or pedestrian
- **Other** – Surface events which cannot clearly be attributed to a mistake or incorrect action by an air traffic controller, pilot, driver, or pedestrian will be classified as “other.” These events would include incursions caused by equipment failure or other factors.





Definitions - Severity Category





National Statistics

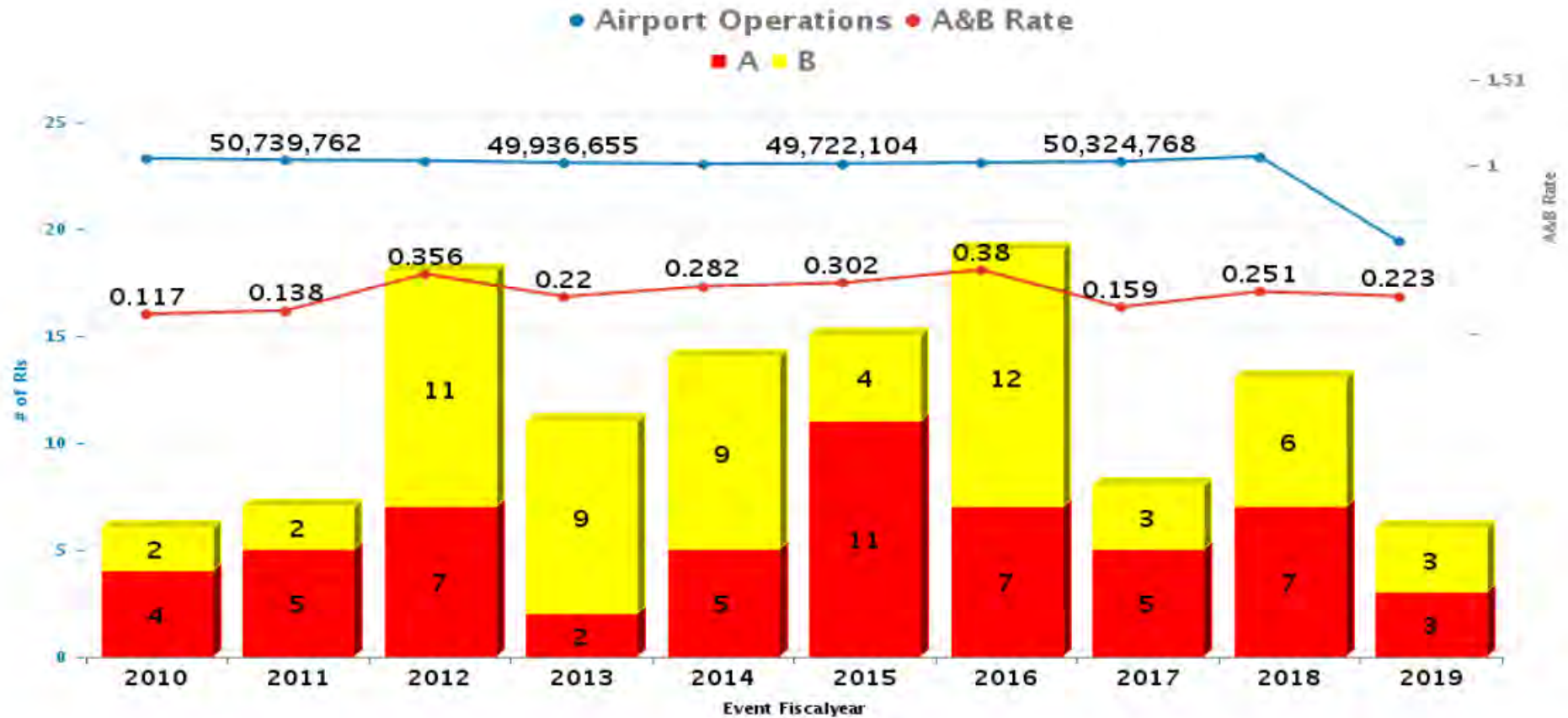
Total Runway Incursions by Fiscal Year





National Statistics

Category A and B Runway Incursions by Fiscal Year





Communications

- Communication continues to be a contributing factor in many runway incursions.





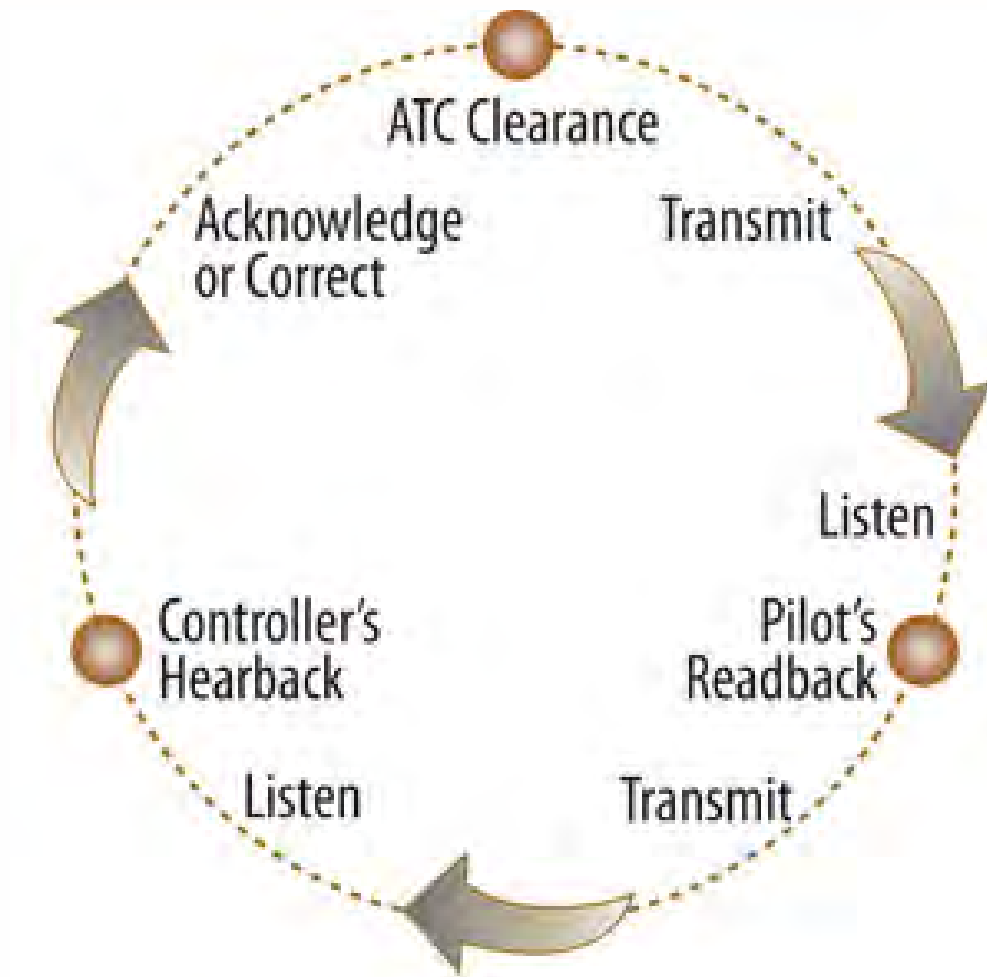
Communications

- An example scenario:
 - Pilot taxis out to Runway 19.
 - Pilot calls ready for takeoff Runway 19.
 - Controller instructs the pilot to cross Runway 19 and expedite for landing traffic, intending for the aircraft to cross Runway 19 to the east side for departure.
 - Pilot responds “Runway 19, cleared for takeoff.”
 - Controller does not catch the incorrect read back.
 - Pilot taxis onto Runway 19 for departure.
 - Traffic on short final for Runway 19 is instructed to go around.





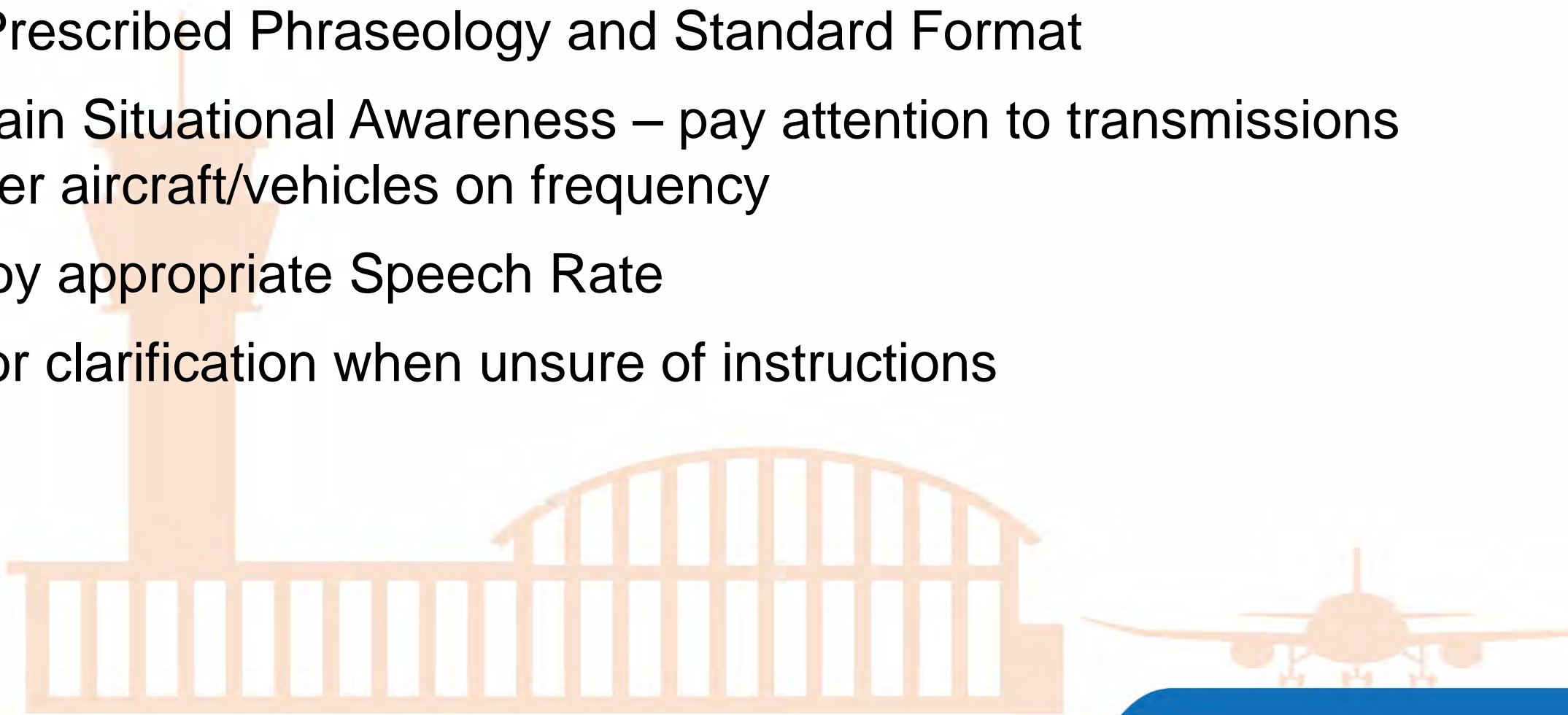
Close the Loop





Communication Best Practices

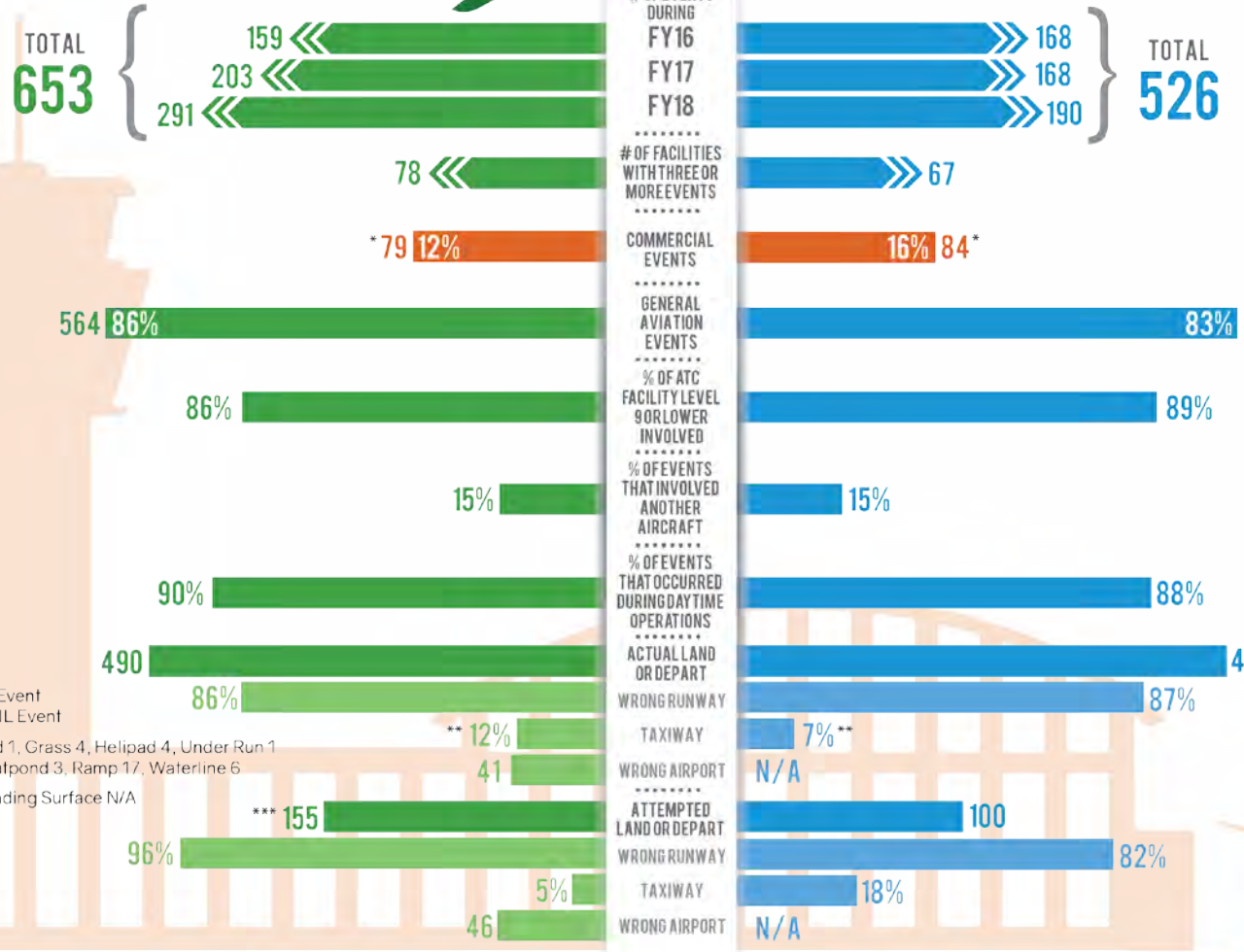
- Complete Read back / Hear back loop
- Use Prescribed Phraseology and Standard Format
- Maintain Situational Awareness – pay attention to transmissions to other aircraft/vehicles on frequency
- Employ appropriate Speech Rate
- Ask for clarification when unsure of instructions





Overall System State

ARRIVALS & DEPARTURES



* Arrival: 10 MIL Event
Departure: 4 MIL Event

** Arrival: Dirtroad 1, Grass 4, Helipad 4, Under Run 1
Departure: Floatpond 3, Ramp 17, Waterline 6

*** 1 Attempted Landing Surface N/A

As of 09/20/2018





Wrong Surface Landings

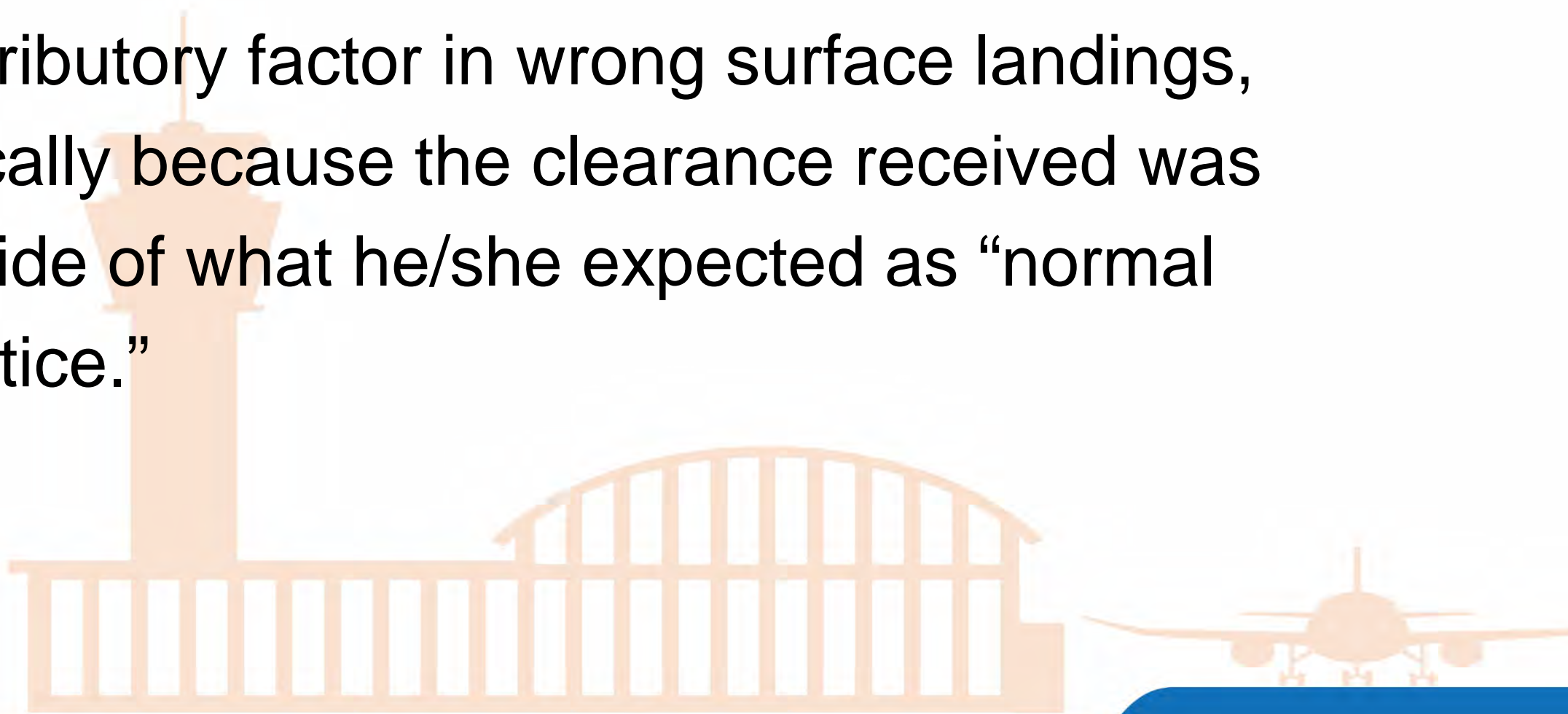
- Wrong Surface Landings include wrong runway, taxiway, and wrong airport landings.
- Common geometric factors include:
 - Parallel runways
 - Closely aligned runway ends
 - Parallel taxiways confused for runways





Pilot Expectation Bias

- Pilot expectation bias is the most common contributory factor in wrong surface landings, typically because the clearance received was outside of what he/she expected as “normal practice.”





Wrong Surface Mitigations

To mitigate the risk of wrong surface operations, every user of the airfield can:

- Review the Airport Diagram prior to operation
- Review Visual Cues – Runway versus Taxiway
 - Paint: White or Yellow
 - Lights: White or Blue/Green
- Use common Verbal Cues – Use of “Active Runway”
- Be familiar with Runway Holding Position Markings
- “Close the Loop” with Read back / Hear back



Runway Excursions

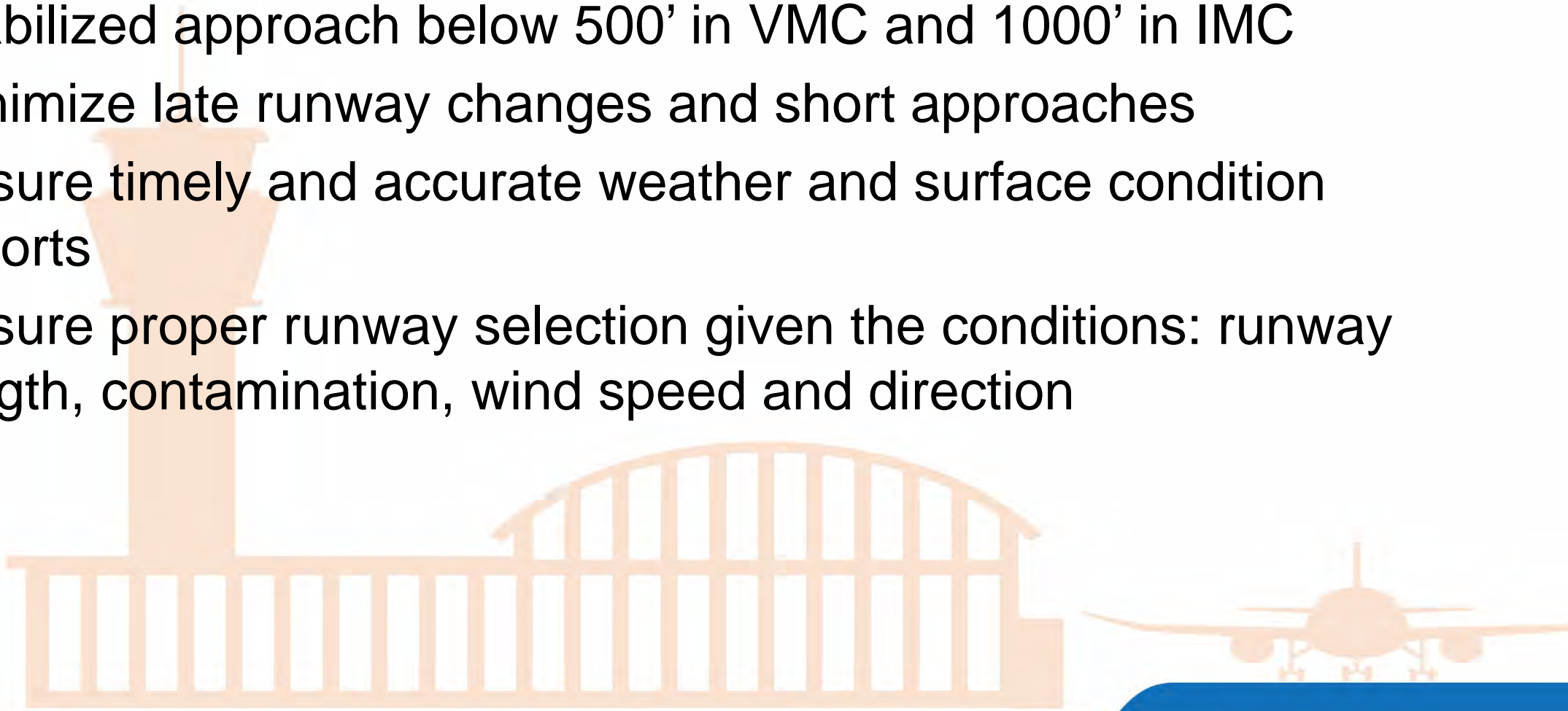
- Lead to more runway accidents than all other causes combined.*
- Estimated annual cost: \$900 Million
- Causes
 - Unstable Approaches
 - Runway Contamination
 - Adverse Weather / Wind Conditions
 - Mechanical Failure
 - Pilot Error





Runway Excursions

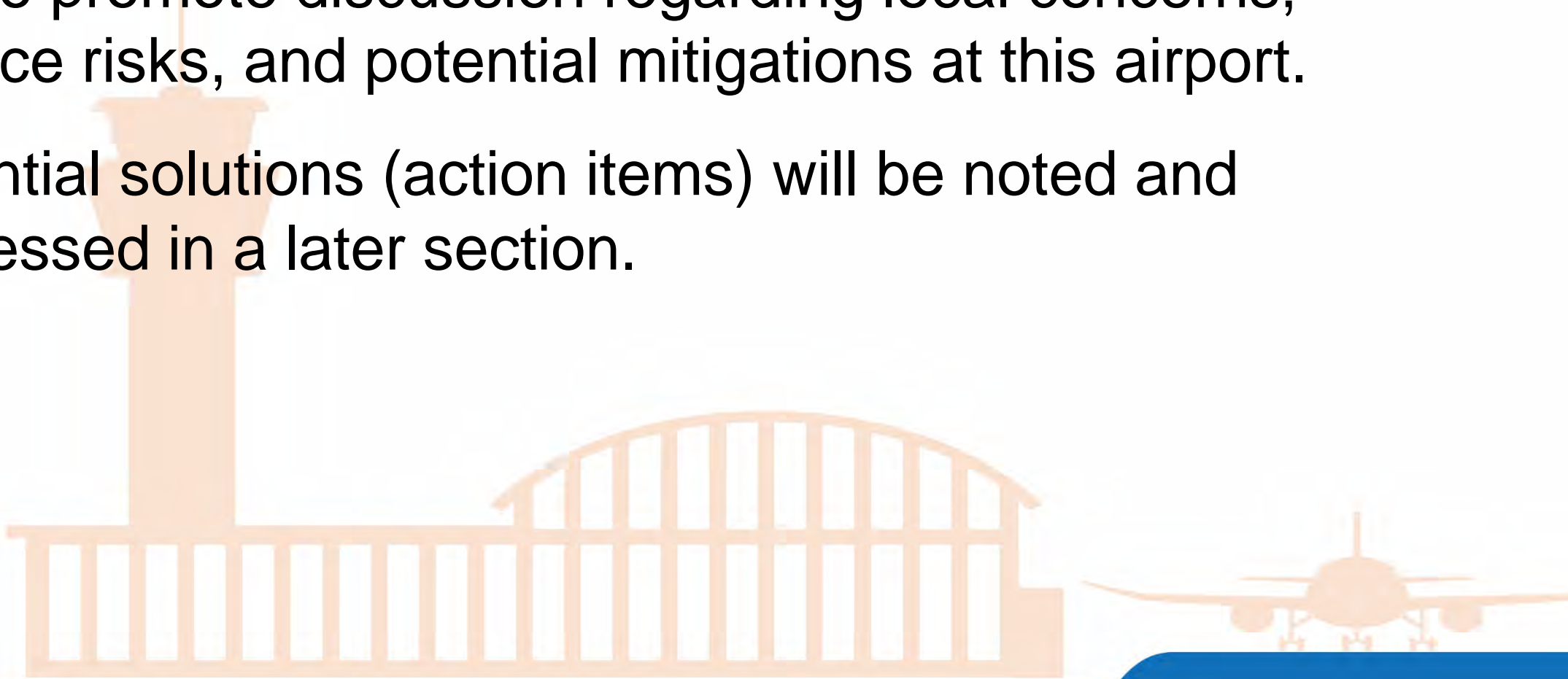
- Possible Mitigations:
 - Stabilized approach below 500' in VMC and 1000' in IMC
 - Minimize late runway changes and short approaches
 - Ensure timely and accurate weather and surface condition reports
 - Ensure proper runway selection given the conditions: runway length, contamination, wind speed and direction

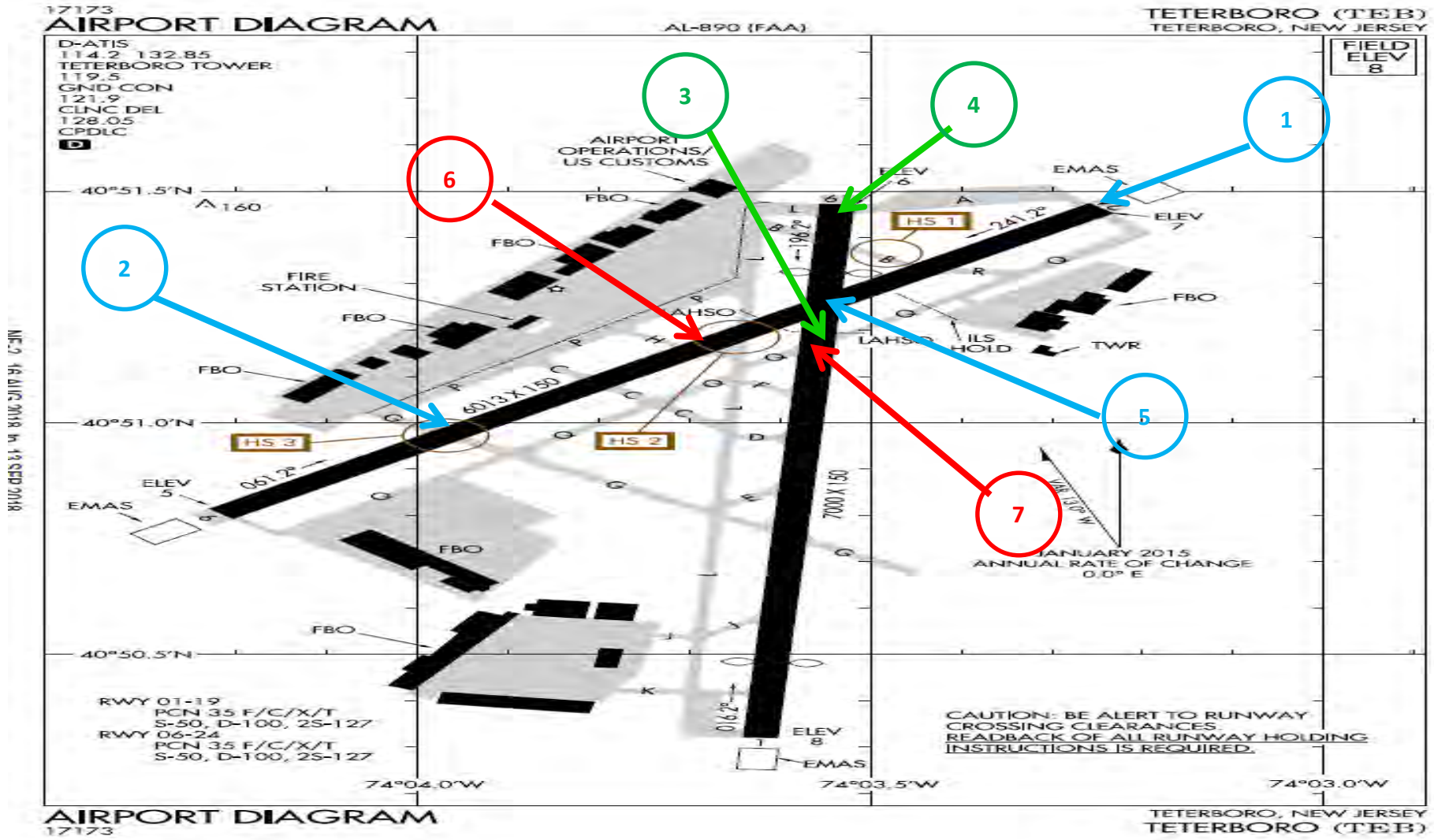




Local Discussion Topics

- The following slides are provided to review local events and to promote discussion regarding local concerns, surface risks, and potential mitigations at this airport.
- Potential solutions (action items) will be noted and addressed in a later section.





←○ PD
 ←○ V/PD
 ←○ OI
 ←○ Other

TEB Surface Incident Record FY 2018 Map
 For official use only

Event Number	FY	Event Description
1	18	<p>C-A/C 1 BE40 DEPARTED RWY 24 WITHOUT AUTHORIZATION CONFLICTING WITH A/C 2 LANDING RWY 19. A/C 1 LUAW RWY 24 as A/C 2 GLF4 was on approach to RWY 19. A/C 1 then departed Runway 24 without authorization as A/C 2 was landing Runway 19. When A/C 2 passed through the intersection of Runway 19/Runway 24, A/C 1 was on departure roll Runway 24 approximately 660 feet from the intersection and A/C 2. Brasher.-20180515</p>
2	18	<p>D-PD RI NO CONFLICT. A/C 1 AC90 CROSSED THE RWY 6 HOLD POSITION WITHOUT AUTHORIZATION WITH HELICOPTER TRAFFIC 1.5 NM FINAL. A/C 1 WAS INSTRUCTED TO TAXI TO RWY 1 VIA TWY G AND TO HOLD SHORT OF RWY 6 W/ GOOD READBACK. A/C 1 THEN CROSSED RWY 6 ON TWY G WITH A/C 2 HELO 1.5 MILE FINAL WITHOUT APPROVAL. NO LOSS. NO OVERFLIGHT. BRASHER. -20180517</p>
3	18	<p>C-OI RI WITH CONFLICT. Ground Control received approval from Local Control to conduct an aircraft crossing at Runway 01 and Taxiway Quebec. Ground Control instructed A/C 1 to cross Runway 01. Local Control failed to recall the crossing approval of Runway 01 at Taxiway Quebec and issued takeoff clearance for Runway 01 to A/C 2. As A/C 1 was crossing Runway 01, A/C 2 was on departure roll. Local Control attempted to cancel the takeoff clearance for A/C 2 but the speed was too great and A/C 2 flew over A/C 1 by approximately 300 feet on Runway 01.-20180606</p>
4	18	<p>C-OI RI WITH CONFLICT. A/C 2 was instructed to cross Runway 01 at Taxiway Quebec by Ground Control and A/C 1 was LUAW for the same runway. Local Control issued takeoff clearance to A/C 1 and began departure roll. Ground Control observed A/C 1 rolling and instructed A/C 2 to hold short of Runway 01. A/C 2 acknowledged and came to rest past the hold short marking but short of the runway edgeline. Local Control instructed A/C 1, on departure roll, to cancel takeoff clearance and the aircraft exited the runway at Taxiway Juliette. Closest proximity between the aircraft was 3,450 feet.-20180621</p>

Event Number	FY	Event Description
5	18	<p>C-PD with conflict. A/C 1/SR22 was issued taxi instructions to Runway 24 via Taxiway Papa, Taxiway Lima, and hold short of Runway 19. A/C 1 repeated the instructions correctly and was later instructed to cross Runway 19. A/C 1 turned onto Taxiway Bravo, crossed Runway 19 and continued across Runway 24 without authorization. A/C 2/LJ45 had been cleared for takeoff on Runway 24 and Local Control observed A/C 1 crossing the same runway without authorization. Local Control cancelled the takeoff clearance for A/C 2 before they began departure roll.-20180829</p>
6	18	<p>D-V/PD RI NO CONFLICT: This event is linked to MOR TEB-M-2018/09/18-0001. Unauthorized VEH1 crossed RWY 24 at TWY Hotel. VEH1 exited RWY 24 on grass and crossed RWY 19 at TWY Quebec without authorization. There was no impact to other vehicles or aircraft. No loss of separation validated.-20180918</p>
7	18	<p>D-VEH entered airfield through open gate on the ramp and proceeded southeast onto TWY Hotel, crossing RWY 24, TWY Quebec, and RWY 19 through airfield grass to the airport perimeter road. No other vehicles or aircraft were involved. Validated no loss of separation.-2080918</p>

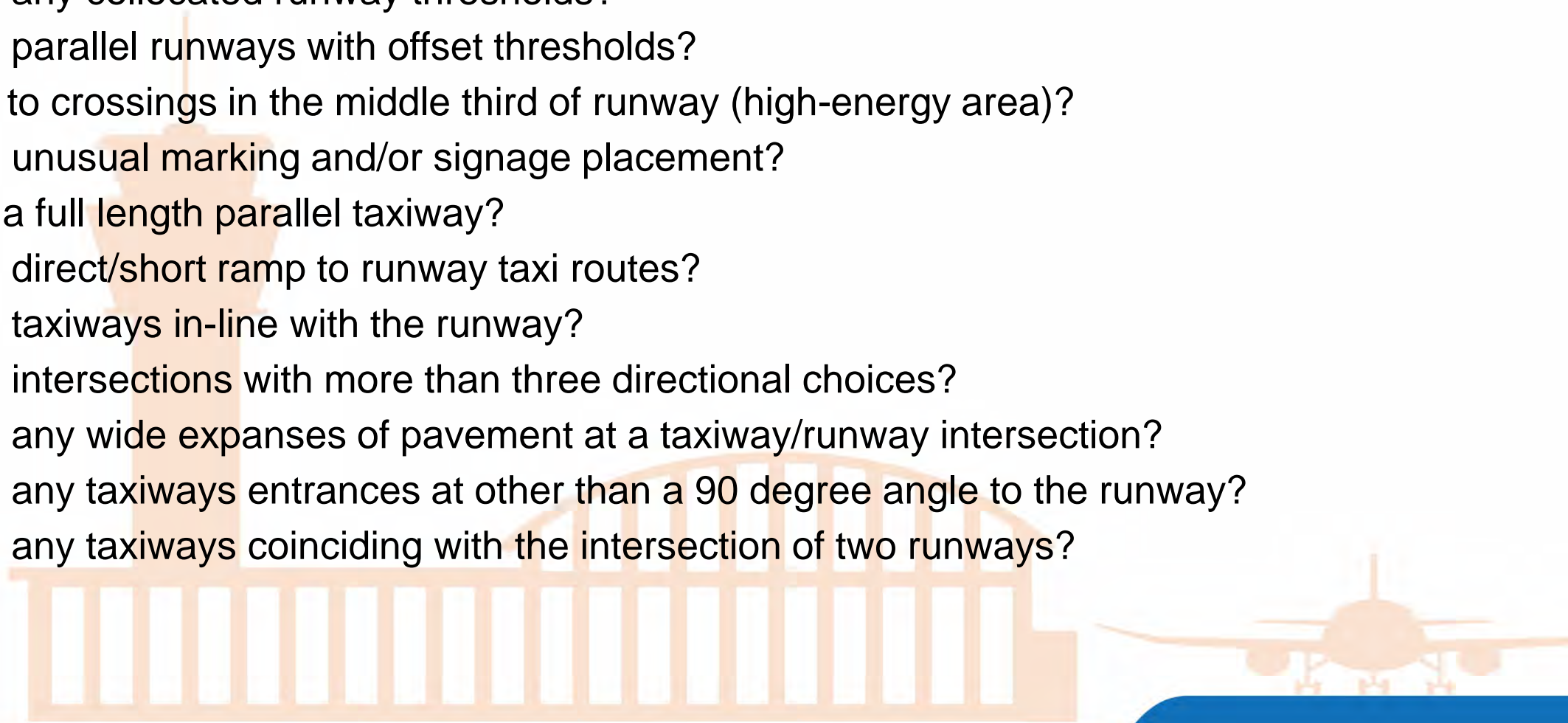
Event Number	FY	Event Description
1	19	D-V/PD without conflict Tug requested to relocate from the east side of Runway 01 on Taxiway Golf to the west area ramp. Ground Control instructed the tug to hold short of Runway 01 at Taxiway Golf but the readback was unreadable. Ground Control later observed Tug crossing Runway 01 at Taxiway Golf without authorization.- 20181003
2	19	D-PD without conflict. A/C 1/H25B was issued taxi instructions for departure from the south area ramp to Runway 24 via Taxiways Kilo, Lima, Quebec to hold short of Runway 19. The instructions were repeated correctly by A/C 1. Ground Control later observed A/C 1 continue north on Taxiway Lima and proceed across Runway 24 without authorization. A/C 1 was then instructed to hold short of Runway 19 at Taxiway Lima.- 20181010
3	19	D-V/PD RI NO CONFLICT: RWY 01 was closed for electrical maintenance. A/C 1 (CL60), was awaiting departure on intersecting RWY 06. ATC cleared A/C 1 for takeoff on RWY 6 but later observed Vehicle (AirOps) move into the intersection of RWY 01 and RWY 06. ATC cancelled A/C 1 takeoff clearance before it began departure roll and instructed the aircraft to LUAW. The vehicle proceeded out of the intersection and moved to the departure end of RWY 01. No loss of separation validated.- 20190220
4	19	D-V/PD RI NO CONFLICT: ATC issued Vehicle (tug) instructions to hold short of RWY 19 at TWY Quebec. Vehicle read back, cross RWY 19 at Quebec. ATC did not detect the incorrect readback. ATC observed Vehicle cross RWY 19 At TWY Quebec without ATC authorization as ECJ31 (H25B), was on a two mile final. No loss of separation validated.- 20190221



Geometry

Does your airport geometry:

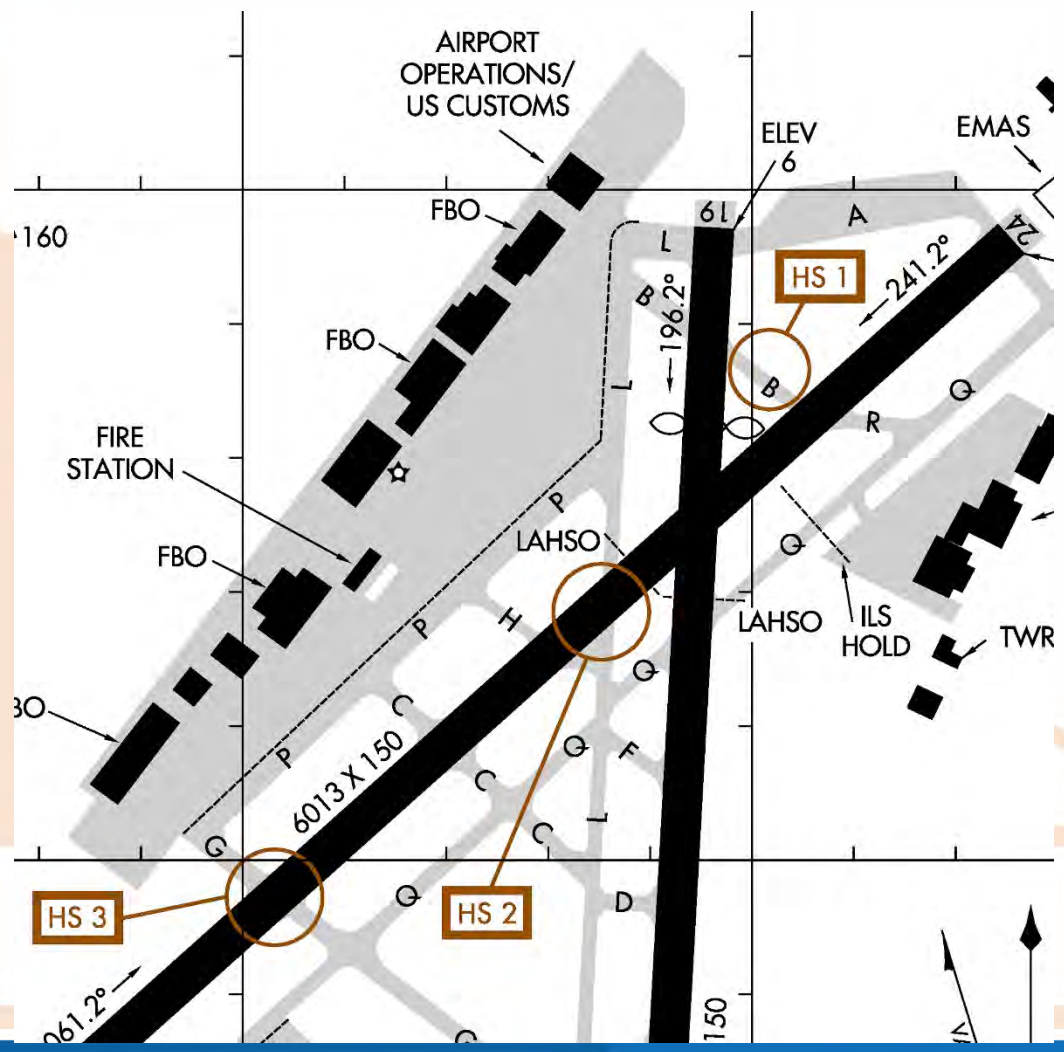
- Have any collocated runway thresholds?
- Have parallel runways with offset thresholds?
- Lead to crossings in the middle third of runway (high-energy area)?
- Have unusual marking and/or signage placement?
- Lack a full length parallel taxiway?
- Have direct/short ramp to runway taxi routes?
- Have taxiways in-line with the runway?
- Have intersections with more than three directional choices?
- Have any wide expanses of pavement at a taxiway/runway intersection?
- Have any taxiways entrances at other than a 90 degree angle to the runway?
- Have any taxiways coinciding with the intersection of two runways?





Hot Spots

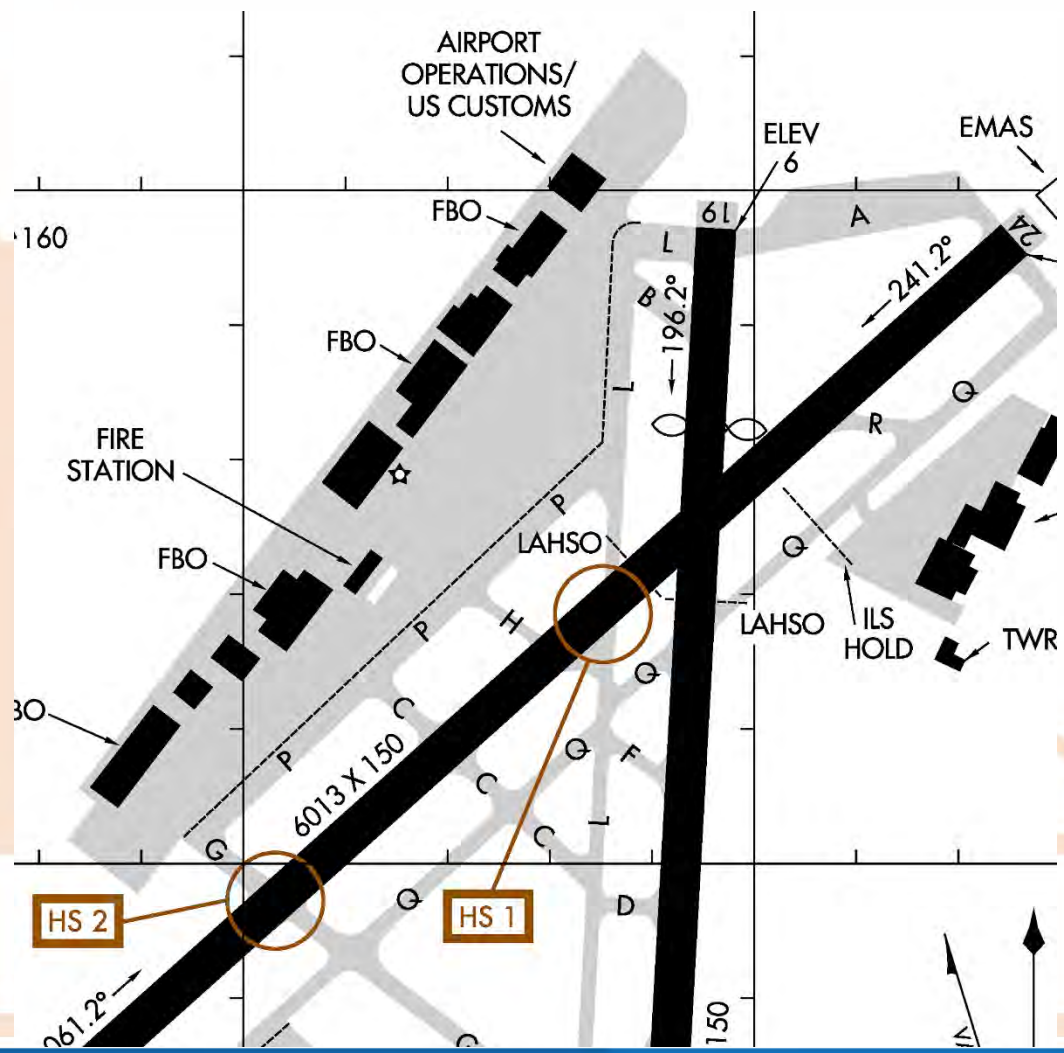
Legacy BRAVO Taxiway and Hotspot as HS1...





Hot Spots

..one less hotspot!





Construction

- Current and/or future plans:
- 1. Removal of Taxiway 'Bravo' & Runway exiting procedures.
- 2. Install Twy 'Victor' Est. November 2019
- 3. Replace all airfield cables for lighting & signage.
- 4. Resurface Taxiways: L, P and G.
- 5. Resurface Rwy 6/24 & 1/19 (2020 & 2022)





Surface Safety Issues

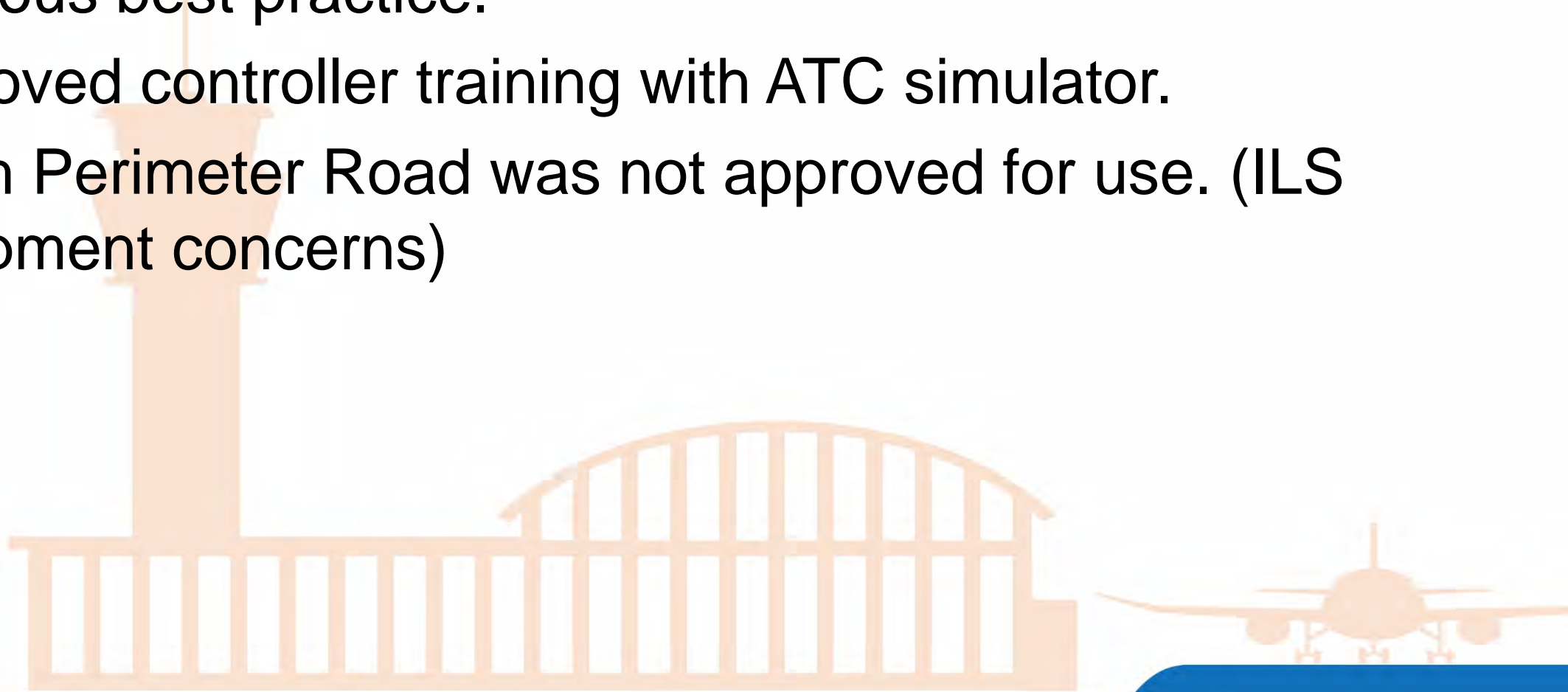
- [Discuss any surface safety concerns reported to the tower in the past year.]
- May email information or requests.





Best Practices

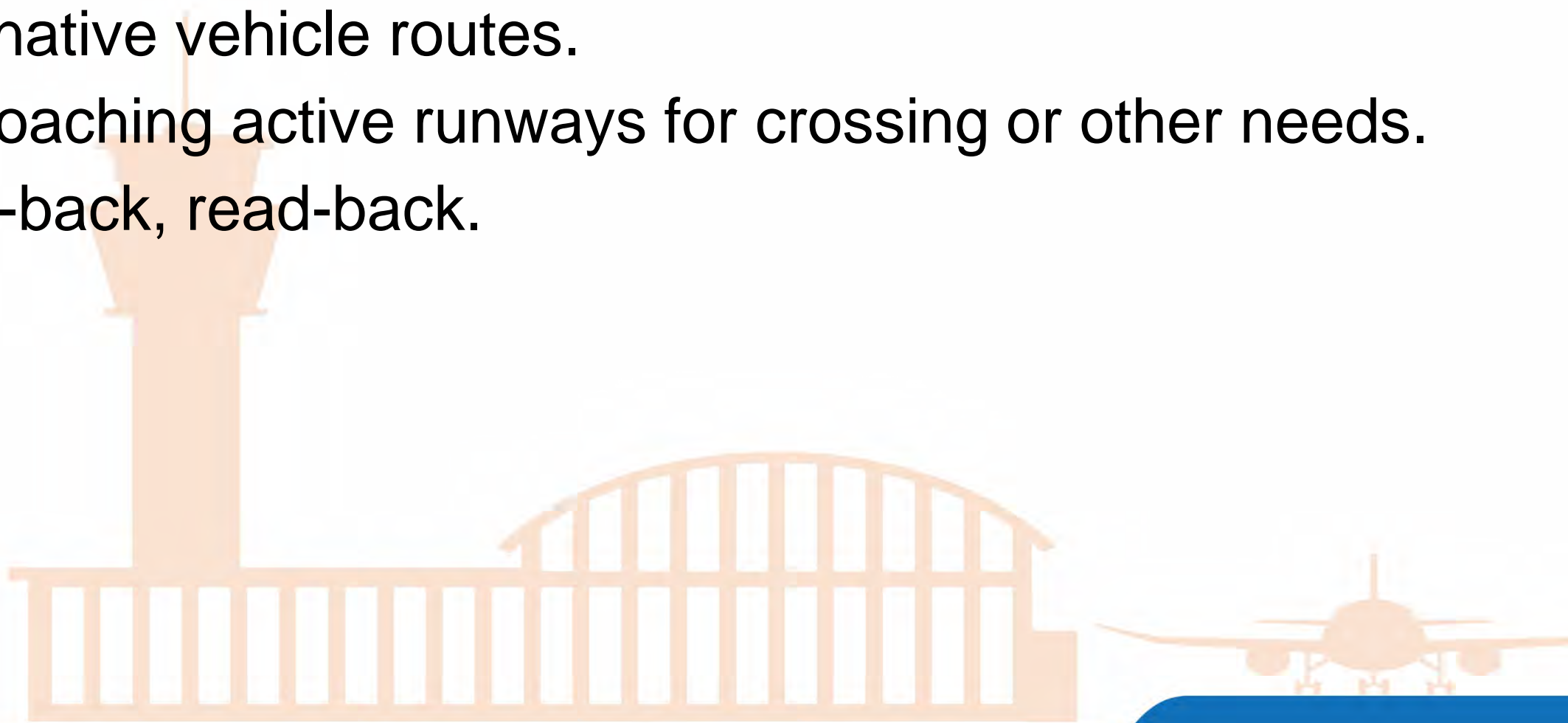
- **Complete:** Removal of Taxiway 'Bravo' eliminates need for previous best practice.
- Improved controller training with ATC simulator.
- North Perimeter Road was not approved for use. (ILS equipment concerns)





Vehicle Operations

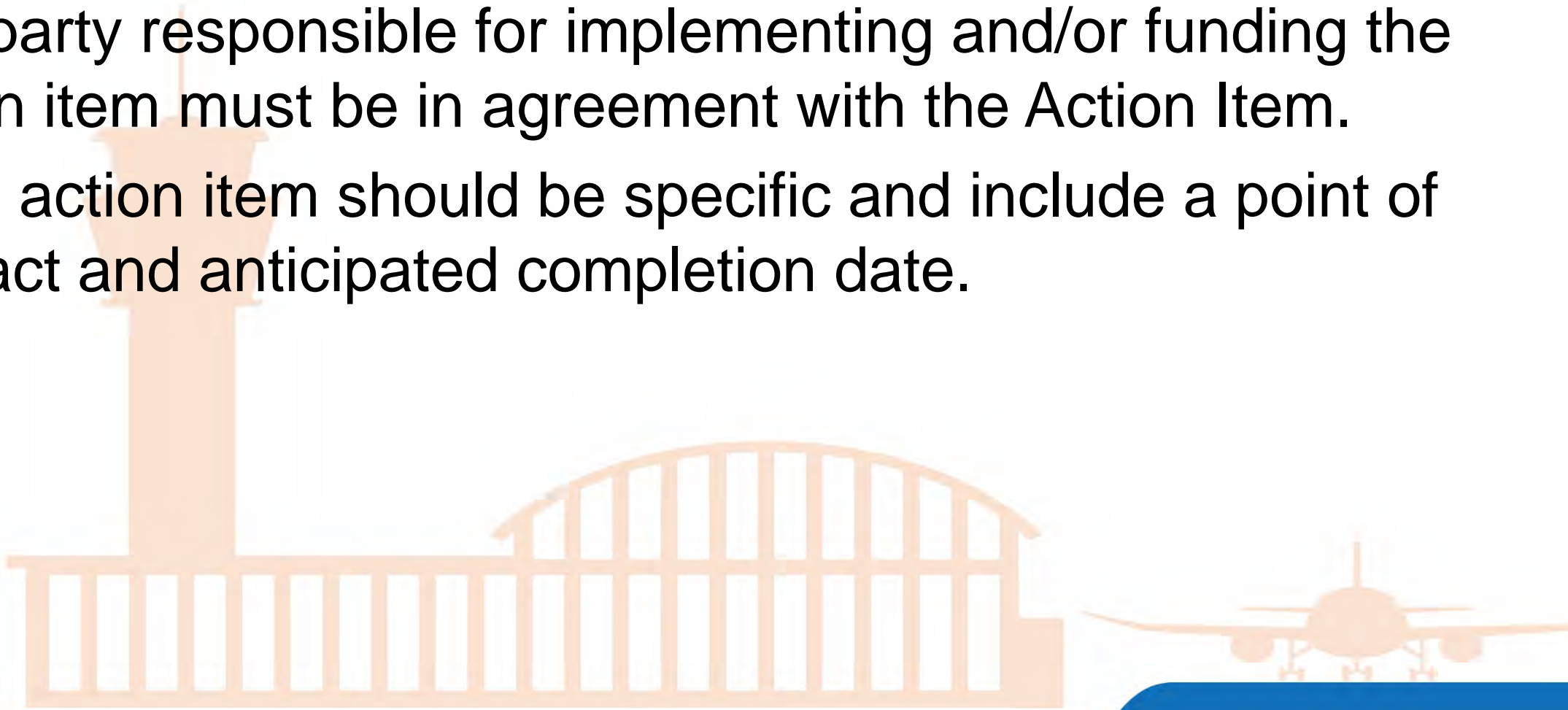
- Discuss use of vehicle access roads at your airport.
- Alternative vehicle routes.
- Approaching active runways for crossing or other needs.
- Hear-back, read-back.





New Action Items

- Action Items are non-regulatory, voluntary, and flexible.
- The party responsible for implementing and/or funding the action item must be in agreement with the Action Item.
- Each action item should be specific and include a point of contact and anticipated completion date.





Helpful web site and email address

Construction status Web Site:

- <https://nfdc.faa.gov/xwiki/bin/view/NFDC/Construction+Notices>
- Use the Chrome browser for better viewing

FAA's Airport Construction Advisory Council email address:

- Constructioncouncil@faa.gov





Runway Safety Action Team Meeting

<https://ksn2.faa.gov/atos/Home/ajs4/agl/Shared Documents/RSAT Resources/Runway Safety Action Team Meeting Feedback Form.pdf>

This file includes fillable form fields. You can print the completed form and save it to your device or Acrobat.com.

Highlight Existing Fields Submit Form

Fill & Sign Tools

- Add Text
- Add Checkmark
- Place Signature
- Send or Collect Signatures
- Work with Certificates

Runway Safety Action Team Meeting Feedback

I attended at: Local RSAT Regional RSAT

Airport: _____

Date: _____

I am a: (check all that apply)

<input type="checkbox"/> Pilot	<input type="checkbox"/> Mechanic (taxi)	<input type="checkbox"/> Line / FBO employee
<input type="checkbox"/> Driver	<input type="checkbox"/> Mechanic (tug/tow)	<input type="checkbox"/> Wildlife control worker
<input type="checkbox"/> Controller	<input type="checkbox"/> Airport operations employee	<input type="checkbox"/> Other _____

Rating: 5-Strongly Agree 4-Agree 3-Neutral 2-Disagree 1-Strongly Disagree

Performance Item	Rating (1-5)	Comments
I (or my organization) received adequate notification of the RSAT meeting.		
I (or my organization) was provided adequate opportunity to express concerns and provide input on runway safety issues.		
I (or my organization) felt that the RSAT meeting was well organized and that relevant information was shared with all stakeholders.		
Overall impression of the RSAT meeting / general comments.		
What is the ONE thing that would have made this meeting better?		

If you would like to be contacted by the Runway Safety office, please send your feedback / questions in an email to 7-301-runway-safety@faa.gov

When you have completed the form, please click the submit button to email it to our office. Alternately, you may print the completed form and mail it to: Federal Aviation Administration, Office of Runway Safety, 490 L'Enfant Plaza, Suite 7225, Washington, DC 20024 or FAX to 202-385-4772.

This file includes fillable form fields. You can print the completed form and save it to your device or Acrobat.com

Use the button in the upper right to Submit the form



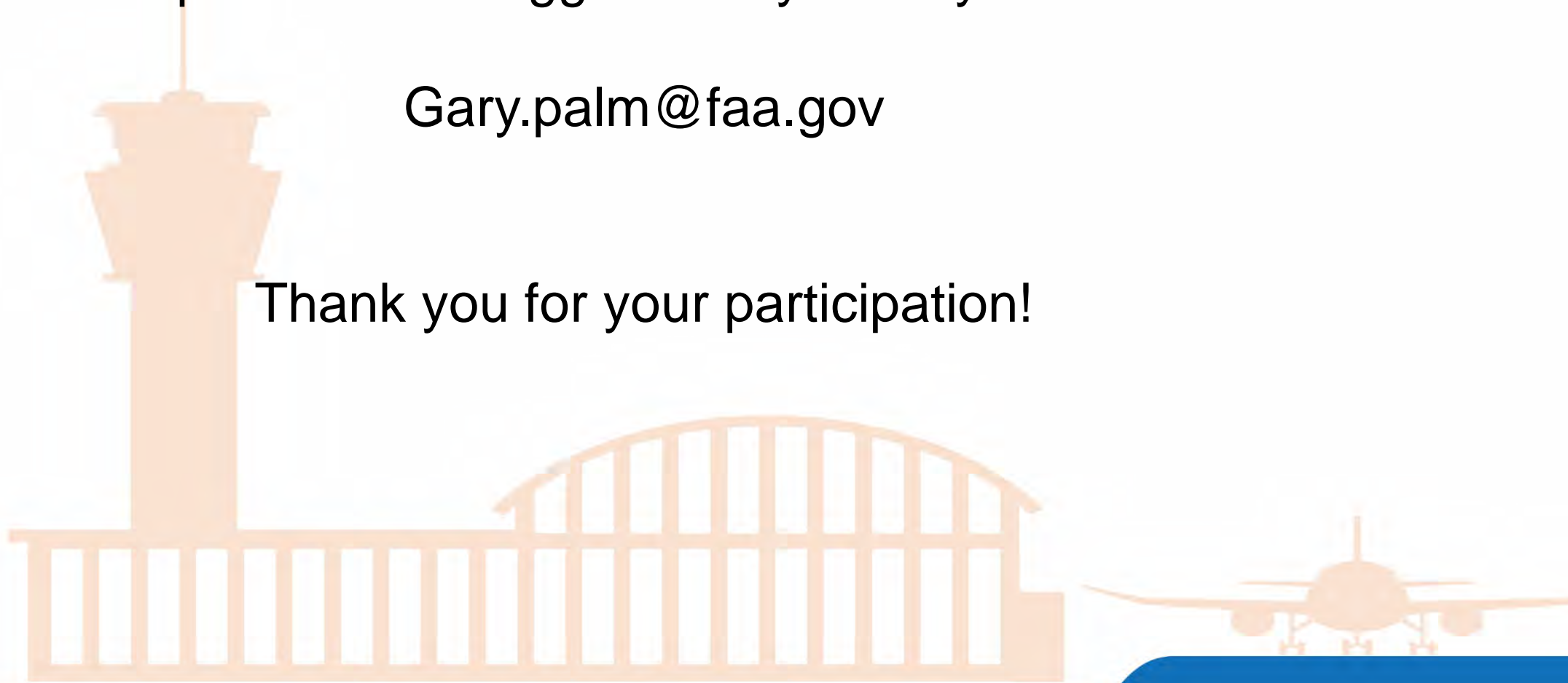


Adjourn

Please ensure you contact us at the below email address with any questions or suggestions you may have.

Gary.palm@faa.gov

Thank you for your participation!





Wrong Surface Operations

- U-Tube:
- https://youtu.be/511-s_j35cl

Teterboro Airport – Chief Pilot Meeting

Upcoming Events

Aviation Hall of Fame & Museum of NJ – Wings and Wheels Expo 2019
June 15th & 16th (9a-5p)

Essex County Airport

(www.njahof.org/)

TEB 5K Run / Walk – July 20, 2019

(www.bergenunitedway.org/teterboro-airport-5k/)

35th Annual Teterboro Airport Community Benefit Fund Scholarship
Golf Classic – September 23, 2019

(for more info call 201-393-4080)

Teterboro Airport – Chief Pilot Meeting

Next meeting:

September 2019

Questions email me at

smarsh@panynj.gov

THANK YOU FOR PARTICIPATING!!!!