

PA-RAST/37

Miami, 20 to 21 August 2019

Date: 20-AUG-2019





The PA-RAST timetables and agenda organization

PA-RAST Yearly Meeting #1

- HRC Focused
- Other projects status and updates

PA-RAST Yearly Meeting #2

- ARC Focused
- ESC updates to the RAST
- Industry day

PA-RAST Yearly Meeting #3

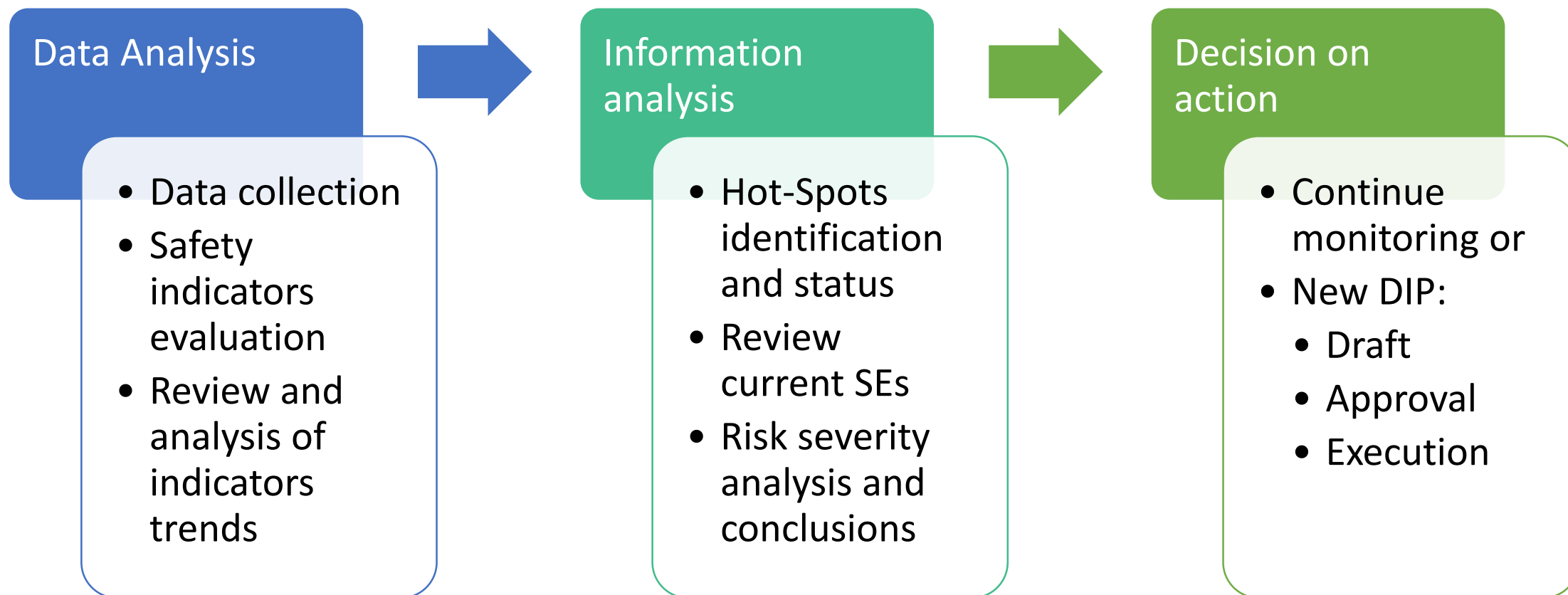
- HRC Focused
- Other projects status and updates

PA-RAST Yearly Meeting #4

- ARC Focused
- ESC updates to the RAST
- Industry day

JAN ----- FEB ----- MAR ----- APR ----- MAY ----- JUN ----- JUL ----- AUG ----- SEP ----- OCT ----- NOV ----- DEC

Overview: The PA-RAST Process



PA-RAST Safety Enhancements Working Plan

High Risk Categories (HRC)

1. CFIT
2. LOC-I
3. Runway Safety
4. MAC

Known risks:
Continuous
monitoring

Additional Operational Risk Categories (ARC)

1. Misconfigurations
2. Go Arouns
3. Surface misalignments
4. UAS/RPAS/Drones
5. Unexpected Weather

PA-RAST/38

Unknown risks:
New studies and
developments

Where can we fit each category in the PA-RAST Process?

High Risk Categories (HRC)

- 1.CFIT
- 2.LOC-I
- 3.Runway Safety
- 4.MAC

**For High Risk Categories,
we can run the full process
for constant monitoring**

Decision on action

- Continue monitoring or
- New DIP:
 - Draft
 - Approval
 - Execution

Data Analysis

- Data collection
- Safety indicators evaluation
- Review and analysis of indicators trends

Information analysis

- Hot-Spots identification and status
- Review current SEs
- Risk severity analysis and conclusions



The PA-RAST/37 main task:

High Risk Categories (HRC)

- Develop **projects** to deliver:
 - Hot-spots Standard Definition and Prioritization (for each HRC)
 - PA-RAST Definition for HRC SPI Targets and Response Plans
- Apply the PA-RAST **process** to:
 - Monitor HRC SPI Trends
 - Update risk profiles (SPI Targets)
 - Update on current hot-spots

Additional Operational Risk Categories (ARC)

- Select final list of ARC areas to work
- Develop **projects** to:
 - Collect relevant data
 - Define safety indicators
 - Identify patterns, trends or current status of risk
 - Evaluate scenarios with different severity levels



Meeting objectives

- Safety Data Review (ASIAS; FDX)
- Basic HRC Framework:
 - Safety Issues definition criteria
 - Number of HRC safety issues for the region
 - Safety indicators trends
 - Safety Issues prioritization
 - How to prioritize different safety issues for each HRC
 - List of prioritized safety issues per HRC: ESC decision making (resources)
- Specific HRC Issues:
 - MAC: Address the RASG-PA / GREPECAS integration

PA-RAST/37 Report

Miami, 20-21 August 2019

Final notes and conclusions from the meeting





List of participants

- Floyd Abang – IATA
- Al Madar – American Airlines / CAST
- Virginio Corrieri – ALTA
- Daniel Soares – ANAC (*)
- Paulo Razaboni – Embraer
- Gabriel Acosta – IATA (*)
- David Zwegers – Airbus
- Santiago Saltos – Airbus
- Crystal Ferguson – FAA / CAST
- Shannon Wright – TC-Canada
- Eric Picaud – ICAO-NACC
- Gunter Ertel – Boeing
- Carl Johnson – FAA
- Diana Martinez – IFALPA

(*) Co-Chairs



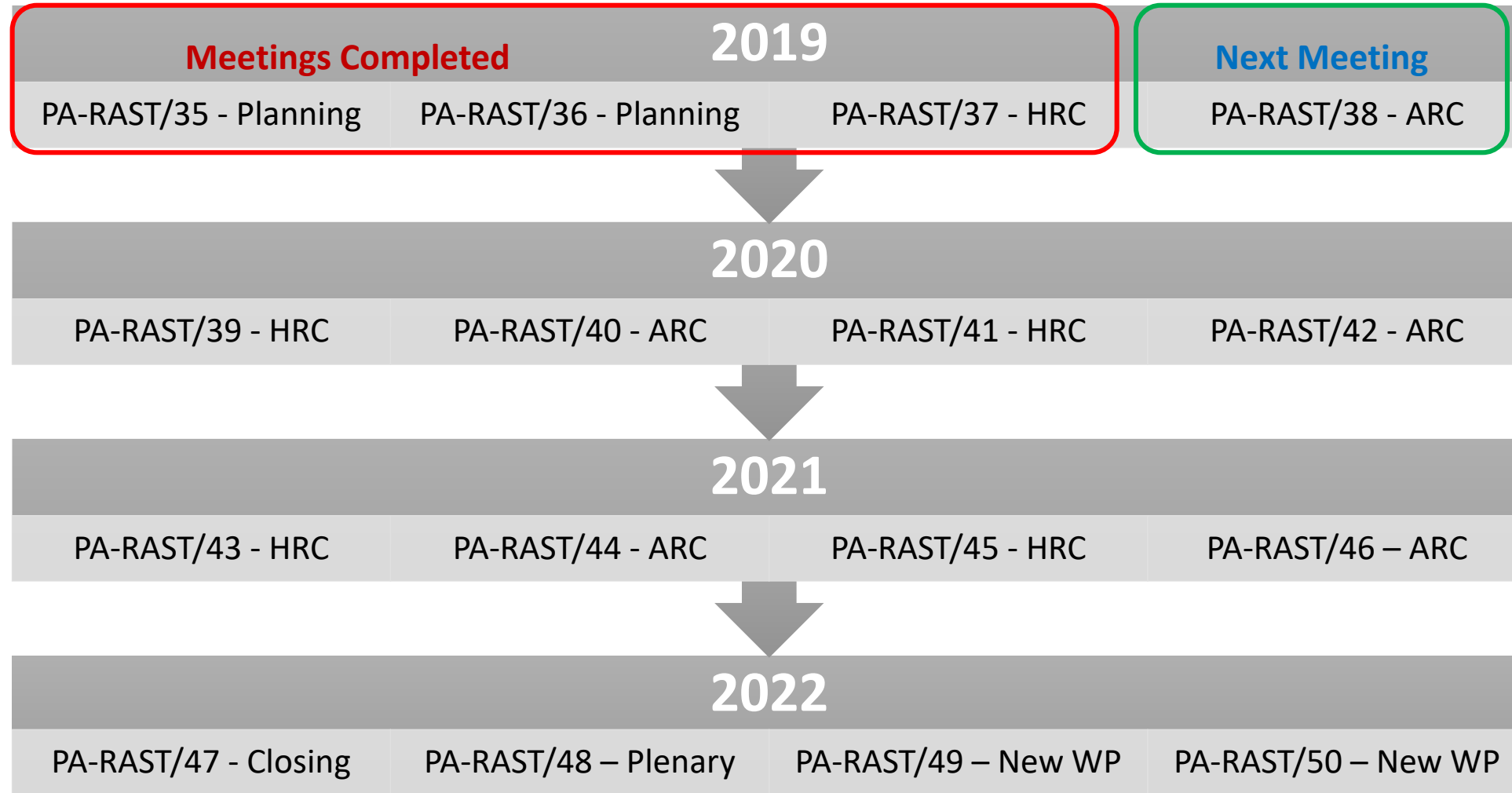
PA-RAST/37 Meeting Agenda

DAY 1	
9:00 – 10:30	Data Session CAST/ASIAS Briefing
10:30 – 11:00	Coffee Break Group photo
11:00 – 12:15	Data Session IATA FDX Briefing
12:15 – 14:00	Lunch Break
14:00 – 14:45	ASIAS Presentation Complex Approaches
15:00 – 16:00	Progress report / comments
--- END OF DAY 1 ---	

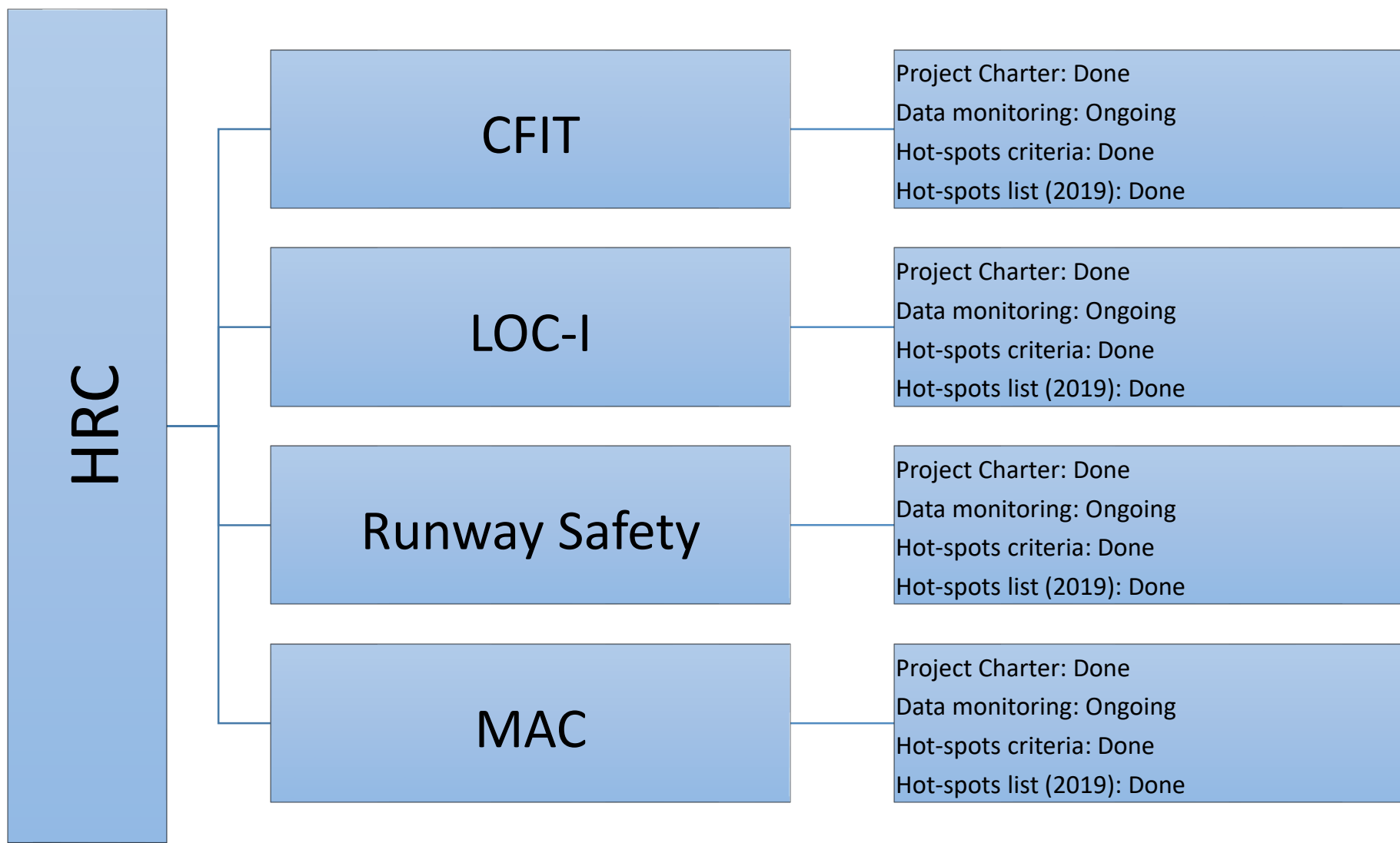
DAY 2	
9:00 – 10:30	HRC Project: MAC
10:30 – 10:50	Coffee Break
10:50 – 12:20	HRC Project: LOC-I / RE / CFIT (break out session)
12:20 – 13:30	Lunch Break
13:30 – 14:30	HRC Projects General conclusions
14:30 – 14:50	Coffee Break
14:50 – 15:50	PA-RAST CST Guidance Project update
15:50 – 16:50	Meeting summary and next steps
--- END OF DAY 2 ---	



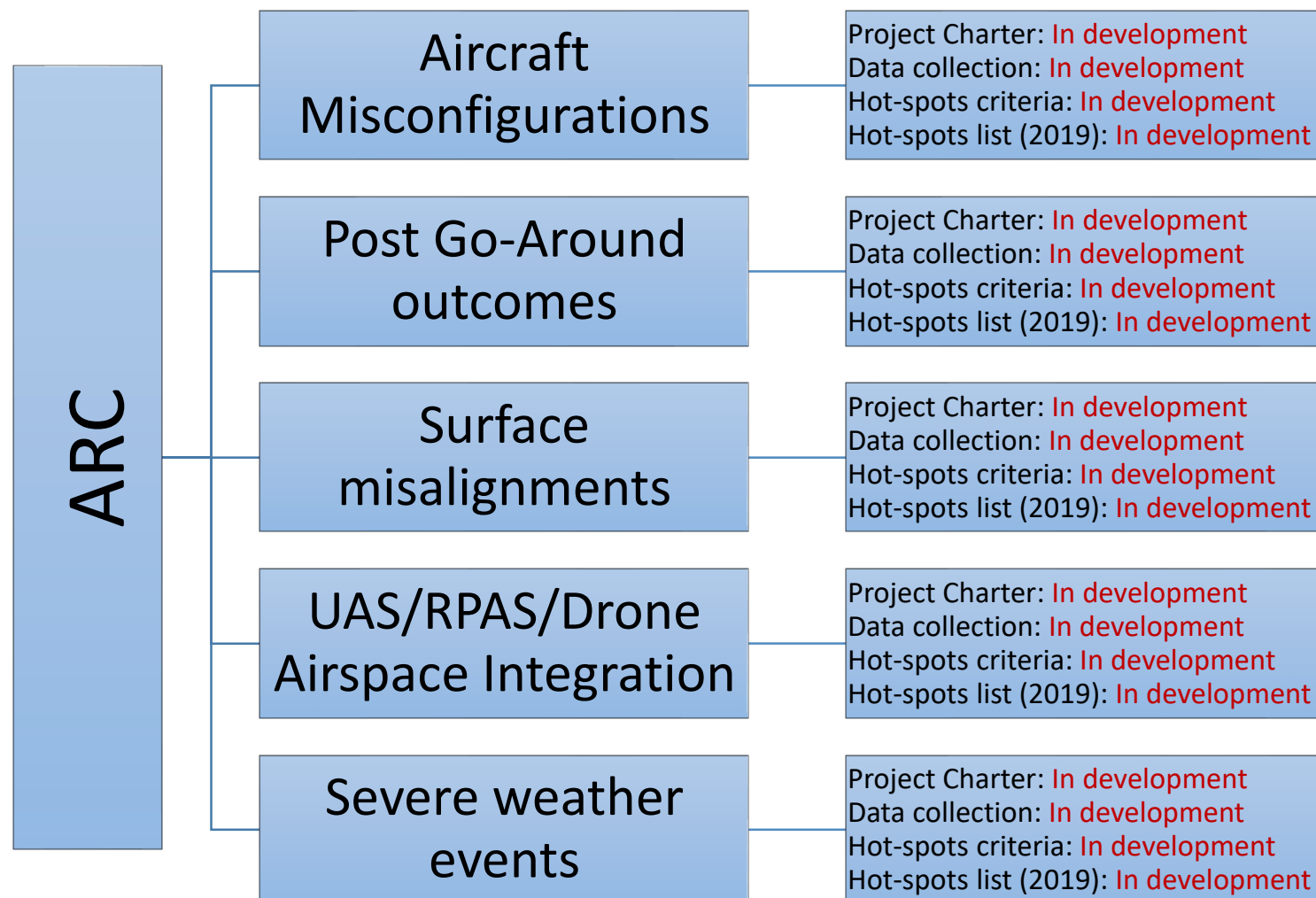
Working plan status



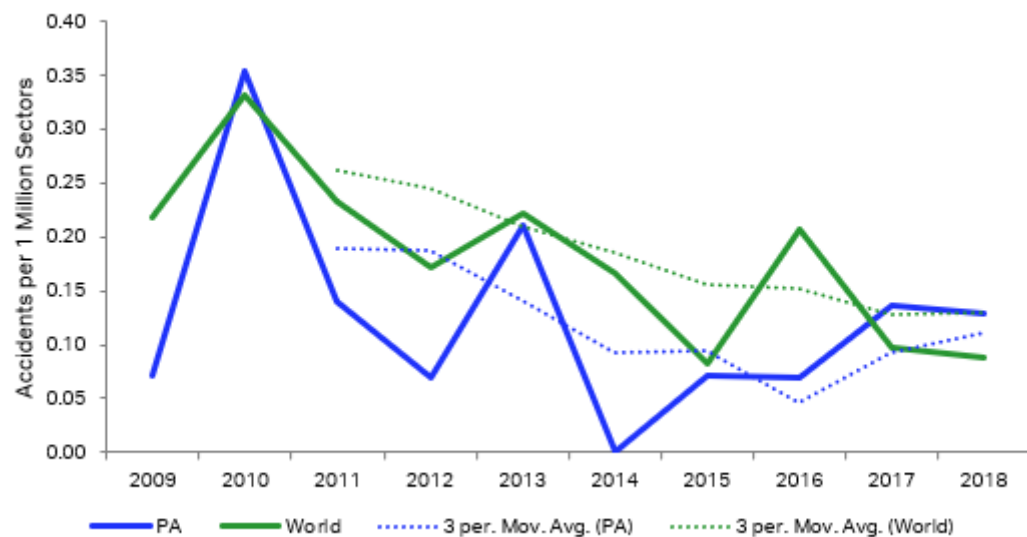
Working plan status



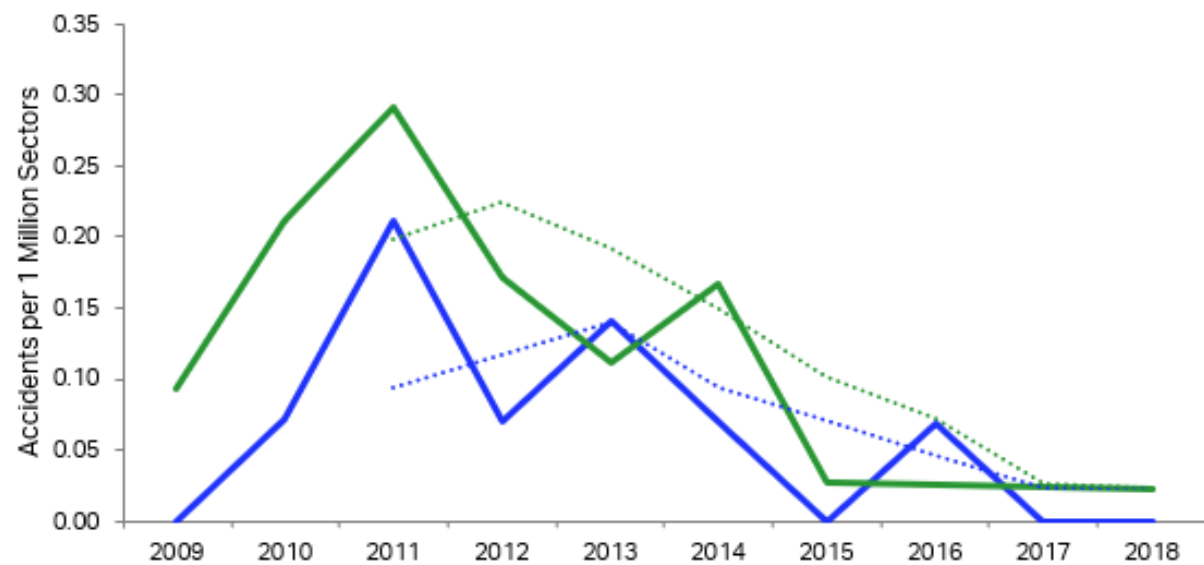
Working plan status



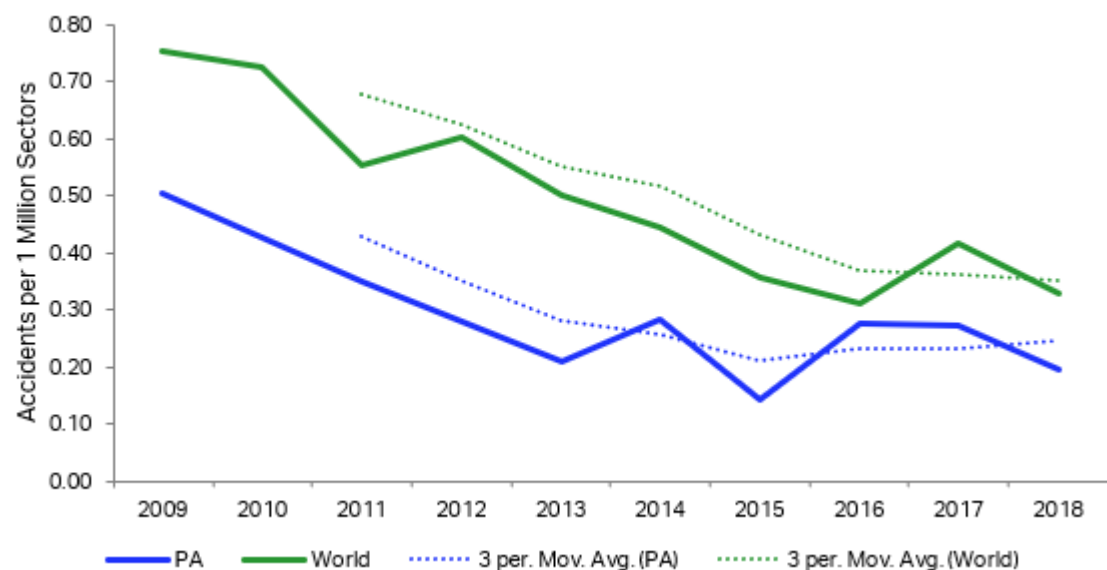
Loss of Control In-flight Yearly Rate



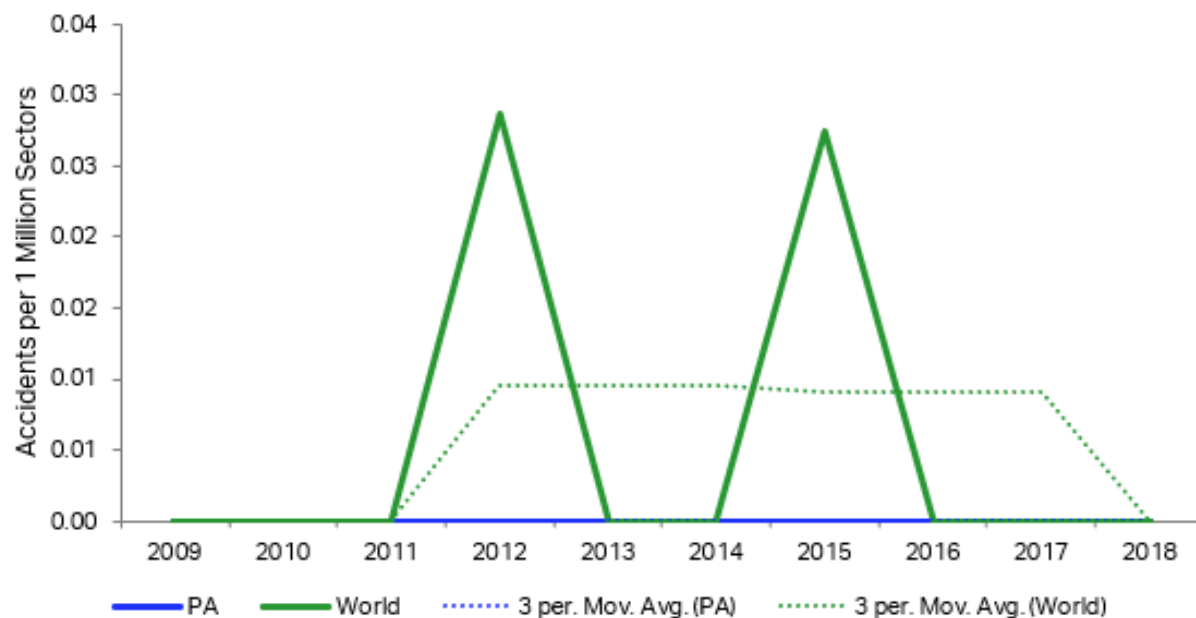
Controlled Flight Into Terrain (CFIT) Yearly Rate



Runway / Taxiway Excursion Yearly Rate



Mid-air Collision Yearly Rate



A2. Loss of Control – In Flight

Project charter status

Completed

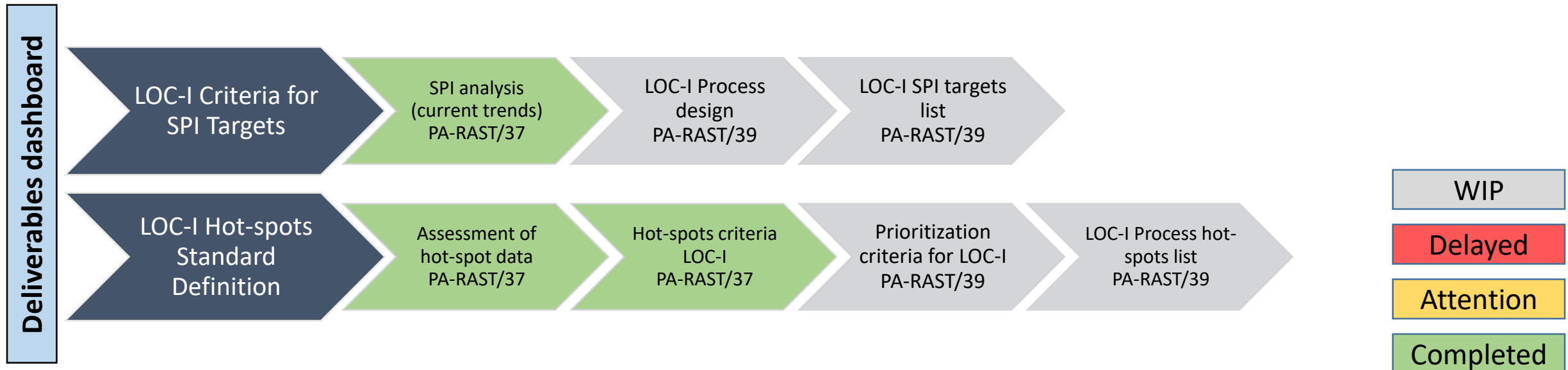
- Development started on PA-RAST/37
- Deliverables: 2 Guidance Materials

Resources

- Leader: BOEING
- Team: USA; ALTA; IATA; BCAST; IFALPA; ICAO

PA-RAST/37 Remarks

- Monitoring indicators: Bank angle, sync rate, AoA
- **Go-around related events are directed to the ARC project**



A2. Loss of Control – In Flight

- Conclusions: LOC-I accident data trending up, no clear indicators from FOQA data to manage. PA-RAST needs more analysis.
 - Overbanks are fleet specific (Regional Jet)
 - Need a new DIP for LOC-I
- PA-RAST information on LOC-I up to PA-RAST/37
 - Complex approaches
 - Speed restrictions and procedures "last minute changes"
 - LOC-I issues during approach - steep turns with low speed
 - Lack of alignment between what is assigned by controllers and the operational procedures
 - Speed / Altitude
 - Sharp turns
 - Requirement of flaps deployment
 - Opportunity - Coordination with GREPECAS



A1. Controlled Flight Into Terrain



Project charter status

Completed

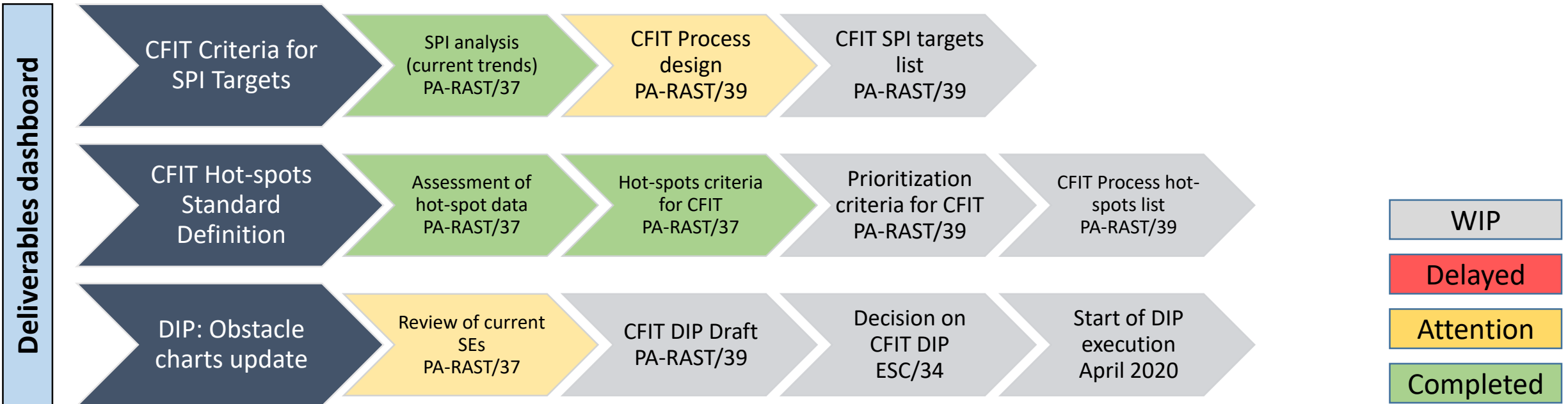
- Development started on PA-RAST/37
- Deliverables: 2 Guidance Materials; 1 DIP

Resources

- Leader: USA
- Team: BOEING; ALTA; IATA; BCAST; IFALPA; ICAO

PA-RAST/37 Remarks

- ESC Decision-Making Information:
Top 10 list of airports/approaches with EGPWS mode alerts (Modes 1, 2, 3)



A1. Controlled Flight Into Terrain

Conclusions: Focus on CST analysis and implementation on local airports

PA-RAST information on CFIT up to PA-RAST/37

- Top 4 Pan American list of airports/approaches with EGPWS mode alerts (Modes 1, 2, 3)



A3. Runway Safety



Project charter status

Completed

- Development started on PA-RAST/37
- Deliverables: 2 Guidance Materials

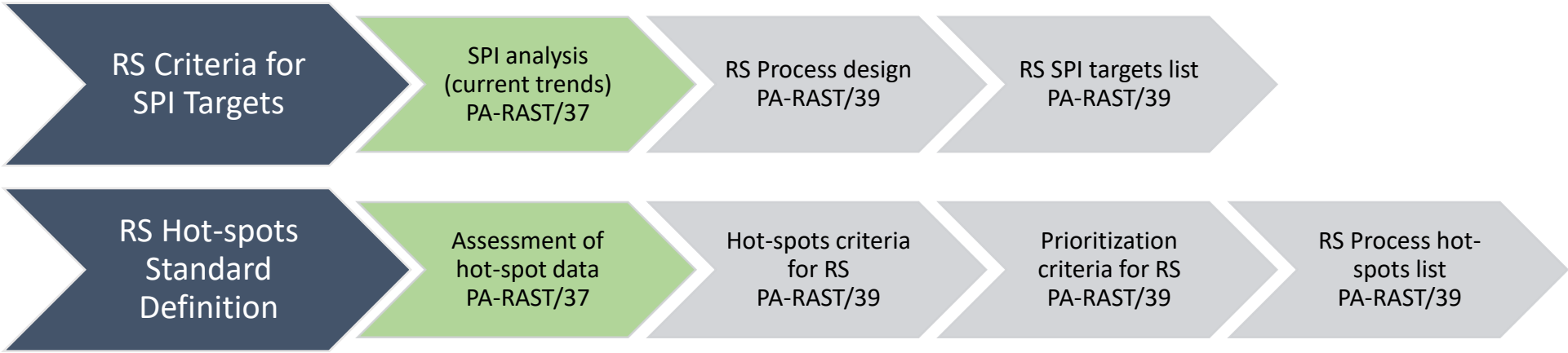
Resources

- Leader: ALTA
- Team: USA; BOEING; IATA; BCAST; IFALPA; ICAO

PA-RAST/36 Remarks

- Indicator: Unstable, tailwind approaches
- Work to be divided: Excursions and Incursions

Deliverables dashboard



- WIP
- Delayed
- Attention
- Completed

A3. Runway Safety

- Conclusions: Focus on CST analysis and implementation on local airports
- PA-RAST information on Runway Safety up to PA-RAST/37
 - RE: Top 10 Pan American list of airports/approaches Unstable Approaches
 - RE: Top 10 Pan American list of airports/approaches with Exceeding Tailwind
 - RI: List of recent cases



A4. Mid-Air Collision



Project charter status

Completed

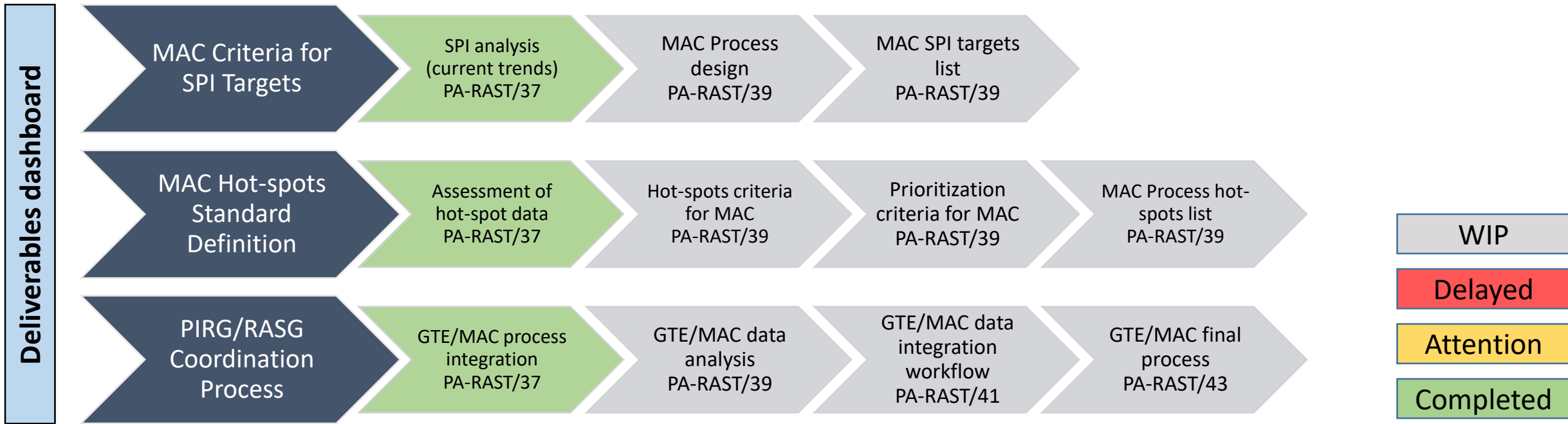
- Development starts on PA-RAST/37
- Deliverables: 2 Guidance Materials; 1 PIRG/RASG Established Process (data sharing)

Resources

- Leader: IATA
- Team: USA; BOEING; ALTA; BCAST; IFALPA; ICAO

PA-RAST/36 Remarks

- Indicator: TCAS-RA events
- GREPECAS: LHD data integration
- Hot-spot criteria to be developed in coordination with the GTE (expected to consume time)



A4. Mid-Air Collision



- Conclusions:
 - Lines and overlapped hot spots have to be reported to CSTs
 - TCAS RA DIP in high priority

- PA-RAST information on MAC up to PA-RAST/37
 - Top 3 Pan American list of approach/departure Safety Issues* (GOOGLE EARTH)
 - Top 3 Pan American list of upper airspace crossings Safety Issues* (GOOGLE EARTH)
 - Top 3 Pan American list of upper airspace routes Safety Issues* (GOOGLE EARTH)

- *We will use "Safety Issues" instead of "Hot spots" since there are issues that are not geographically located



Conclusions

General notes on the HRC:

1. LOC-I trends are negative (upward trend), new efforts by the region recommended.
2. Data supports RE, CFIT, MAC – generally, trends are either at a historical minimum or lowering trend.
3. Triggers for action of the ESC are under study:
 1. If the trend show an upward tendency
Immediate action proposed to the ESC (development of RSA)
 2. If the trend shows downward tendency
A change of behavior (either stable or upward) will trigger specific action (DIP + RSA)
 3. If the trend shows erratic behavior
Number of occurrences reaches the highest value of the last 3 years (development of RSA)
 4. **Otherwise**, the Team will **keep monitoring**.



Conclusions and Suggested actions

Specific notes on the HRC:

1. GREPECAS cooperation opportunities:
 1. LOC-I on complex approaches
 2. MAC on upper airspace hot-spots (LHD data)
2. What information should be included in the ASR?
3. What areas need a RASG-PA Safety Advisory?
4. CST updates?

Collaborative Safety Teams

August 2017

Activos	Green
En proceso	Yellow
Stand by	Red
Pendiente	Blue



Anexo 19

Collaborative Safety Tear

Sep 2019



Anexo 19





Next Steps: Additional Risk Categories (ARC)

Actions:

1. Collect available data (SEP-NOV)
2. Identify possible indicators / precursors
3. Finalize Project Charters

Starting at PA-RAST/38 (SÃO PAULO)
3-5 DEC 2019