



# Global Reporting Format

## Implementation



# Pilots

- They do not read the regulations
  - “Regulations are for the authorities and operators”
- They don't have AIPs
- They do read the operators OPS manuals;
  - Company OPS manual FOM / OM-A
  - The aeroplane AFM / FCOM / OM-B
  - Charts / OM-C
- **THEY NEED TRAINING !**

ICAO doc 10064 ?  
CAT.POL.A.235 ?  
FAA AC 25-31 ?



# Pilot Training

- Update of manuals and a leaflet is NOT enough!
- Flight Crews need
  - Theories
  - Possibility to ask questions
  - Practice
- ICAO doc 10064 APM
- ICAO Circular 355 Appendix H
  - Example of a content of flight crew training syllabus



# Flight Crew Training / ICAO doc 10064 APM / ICAO Circ.355 App H

→ It is not enough that the Flight Crew only knows about

- RCR
- RWYCC
- RCAM



# Flight Crew Training / General objectives

- Pilots should understand that the actual safety margins get smaller when conditions get worse.
- They should understand that RCAM, RWYCC and braking action are adaptive tools in decision making
  - For example, a calculated 1m margin in landing distance does not necessarily mean that the landing will be safe, but it should make the pilot to use his best judgement taking different variables into account and cross-check between sources when making decisions.



# Flight Crew Training / CRM

- It is good CRM to make some pre-determined decisions for deteriorating conditions. These “canned decisions” improve situational awareness, help in late stage decision making and improve workload management



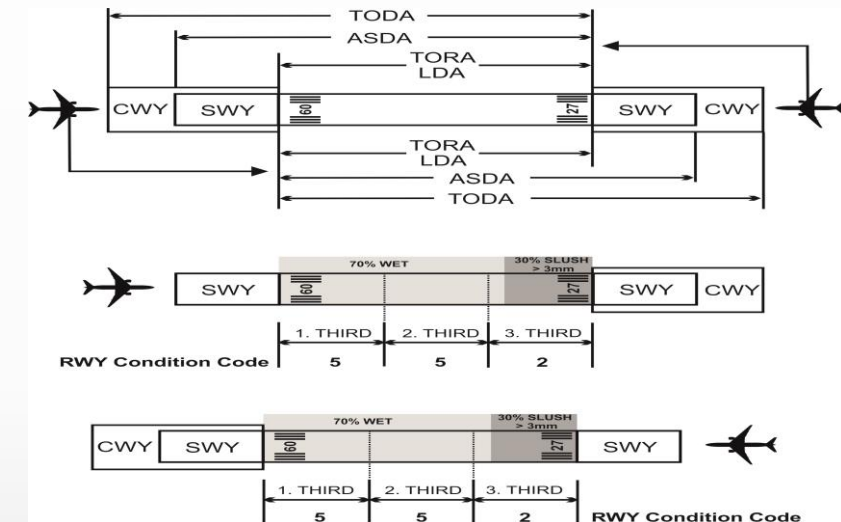
# Flight Crew Training / Basics

- Contaminants;
  - Those that cause increased drag thus affecting acceleration
  - Those that cause reduced braking action affecting deceleration
- “Slippery when wet”
  - What it means for performance
  - How to interpret



# Flight Crew Training / Company policies

- Dispatch and in-flight conditions
- Use of reduced thrust for takeoff
- Use of RWY thirds in calculations
- Distance At time of Landing calculations
- Usage of AIREPs
- OPS if cleared runway width is less than published
  - Max allowed X-wind
- Use of autoland
- Variable winds and gusts
- OPS on icy RWY





# Flight Crew Training / Flight planning

- Landing performance at destination and alternates
  - Selection of alternates if airport is not available due to runway conditions
    - En route
    - Destination alternates
  - How many alternates?
    - Runway condition



# Flight Crew Training / Takeoff (ref. APM)

- Aeroplane control in takeoff and landing
  - Lateral control
  - Longitudinal control
- V1 correction in correlation with minimum control speed on ground
- Why to use the type and depth of the contaminant instead of Runway Condition Code
- practice



# Flight Crew Training / In Flight OPS (ref. APM)

- “Distance At time of Landing” calculations
  - When to do
  - Considerations for flight crew
  - Runway selection for landing
  - Factors affecting
  - Use of aeroplane systems
    - Autoland
    - Brakes / autobrakes
    - Reversers
  
- Check situational awareness





# Flight Crew Training / Situational awareness (ref. APM)

| Situational awareness info  | Situational awareness for flight crew  |
|---|--|
| reduced runway length   | <ul style="list-style-type: none"> <li>- Check that correct LDA is used in landing performance calculations.</li> <li>- Check the position of the runway threshold in use.</li> </ul>                          |
| drifting snow on the runway                                       | <ul style="list-style-type: none"> <li>- Be aware of optical illusion of “moving runway” in crosswind conditions.</li> </ul>   |
| loose sand on the runway  | <ul style="list-style-type: none"> <li>- Be aware of sand injection to engines if using reverse thrust.</li> <li>- Adjust performance calculations according to the intended use of reversers.</li> </ul>      |
| chemical treatment on the runway                                  | <ul style="list-style-type: none"> <li>- Some operators may collect this information because of brake wear.</li> </ul>   |
| snowbanks on the runway   | <ul style="list-style-type: none"> <li>- Be aware of snowbanks if cleared width is less than full runway width. There is a danger of losing directional control or snow injection into the engines.</li> </ul> |
| snowbanks on taxiway  | <ul style="list-style-type: none"> <li>- Avoid taxing so that snow could inject into the engines.</li> </ul>   |
| snowbanks adjacent to the runway                                  | <ul style="list-style-type: none"> <li>- Avoid taxing so that snow could inject into the engines.</li> </ul>   |
| taxiway conditions  | <ul style="list-style-type: none"> <li>- Adjust taxing speed &amp; techniques accordingly</li> </ul>   |
| apron conditions  | <ul style="list-style-type: none"> <li>- Adjust taxing speed &amp; techniques accordingly</li> </ul>   |
| State approved and published use of measured friction coefficient | <ul style="list-style-type: none"> <li>- Use only if approved by the operator.</li> </ul>  |
| plain language remarks  | <ul style="list-style-type: none"> <li>- Note any other relevant information.</li> </ul>   |

# Flight Crew Training / Landing

- Pilot procedures
- Flying techniques
  - Landing on performance limited RWY
  - How to regain control if having problems with directional control (aeroplane windcocking)
  - Use of EMAS





# AIREPs (ref. APM)

- Understand the difference between friction limited braking and different modes of autobrakes
  - Policies
    - When to give one
    - What “LESS THAN POOR”
    - means for aerodrome operations
  - Aeroplane as friction measuring and/or reporting system
- **GOOD**
  - **GOOD TO MEDIUM**
  - **MEDIUM**
  - **MEDIUM TO POOR**
  - **POOR**
  - **LESS THAN POOR**

# Possible paths for errors (ref. APM)

- Misunderstanding the terminology
  - New terms take time to assimilate
- Flight Crews not knowing the policies. For example:
  - AIREP vs. RCR
  - Coverage vs. RWY thirds
  - Slippery when wet
- Late changes in RCR
  - Need to be pushed to the aeroplane





# Timeliness reporting / Removal of MOTNE

- There has been a decision to remove the MOTNE code in the end of *metar* reports that has defined prevailing RWY condition.
- IFALPA fears that there might be a time gap between the removal of MOTNE and the introduction remedial arrangements giving a possibility for flight crews in flight to receive RCRs at any time.
- It must be ensured that ACARS service providers, such as ARINC and SITA, are involved in the development.
- It is an AIS/AIM issue to ensure that RCRs will be available in ACARS for the flight crews in flight when MOTNE disappears.



# IMPLEMENTATION CHALLENGES

- ✈ Training
- ✈ Training
- ✈ Training
- ✈ Some Technical issues such as Programming

Will to change !





# Summary

Applicable Nov 5, 2020

- The Global Reporting Format - GRF is a big step towards safer aerodromes.
- The GRF targets the clarified and standardized reporting of RWY surface conditions on wet and contaminated runways, the impact of which is then directly correlated with an aircraft's performance, enabling a better flight crew prediction of take-off and landing performance as well as improved CRM.
- A globally harmonised implementation minimises risks.
- **IFALPA** emphasizes **the importance of training**, which should not be underestimated.
- **IFALPA** hopes that the regional seminars are able to pass a correct and uniform picture of GRF onwards.

# Thank You !



The Mission of IFALPA is to promote the highest level of aviation safety worldwide and to be the global advocate of the piloting profession; providing representation, services and support to both our members and the aviation industry.