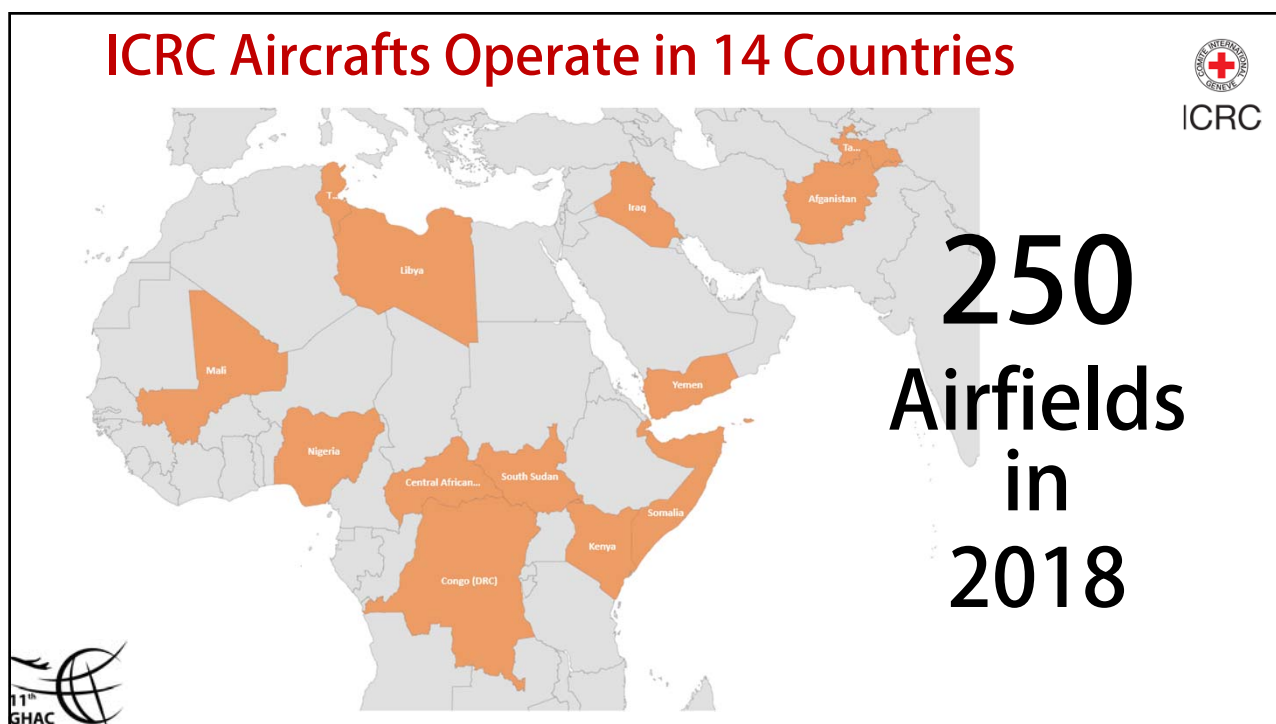
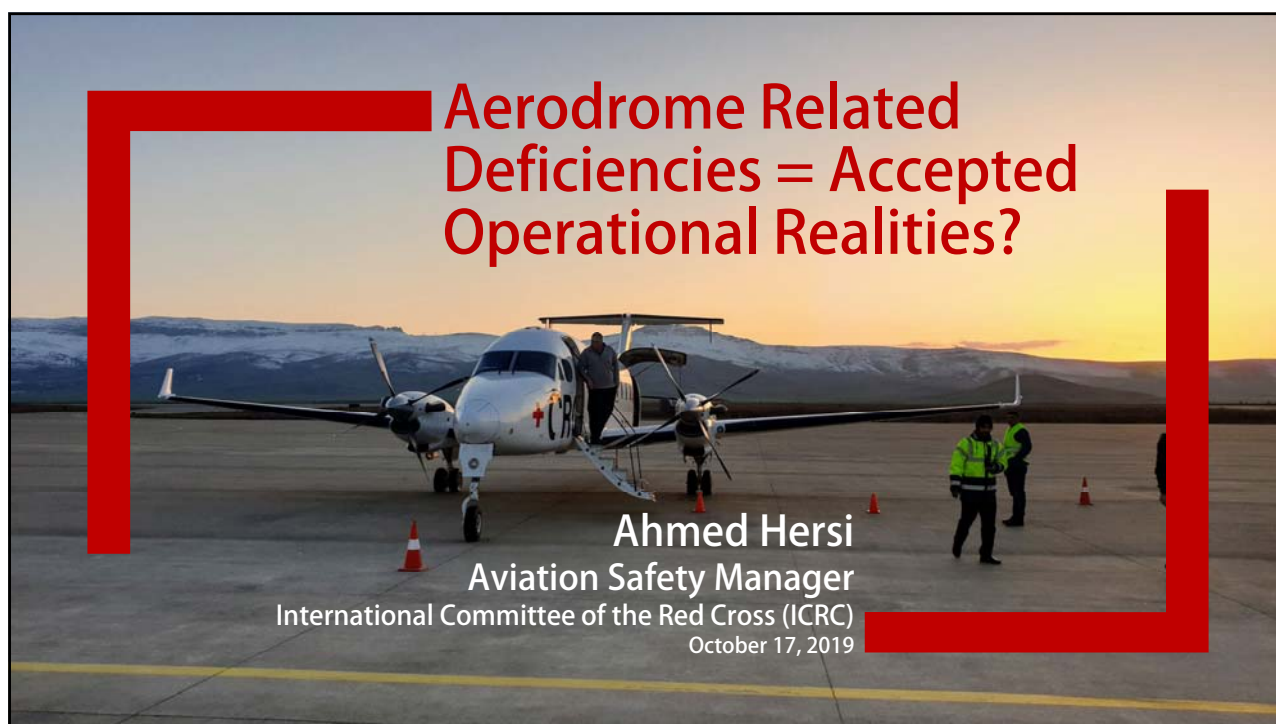




Expectation — ordinary aerodrome



ICRC

Source: <https://leadstar.us/how-long-is-your-runway/>

Reality — ordinary airfield



ICRC



Source: ICRC file photos

Aerodrome / Airfield Standard



Out of the

250

Airfields/Airstrips

> 80%

are unpaved / uncontrolled



Reality — ordinary airstrip/airfield



Is it SAFE to Land Here?



Source: ICRC file photos

View from some of the airfields



ICRC

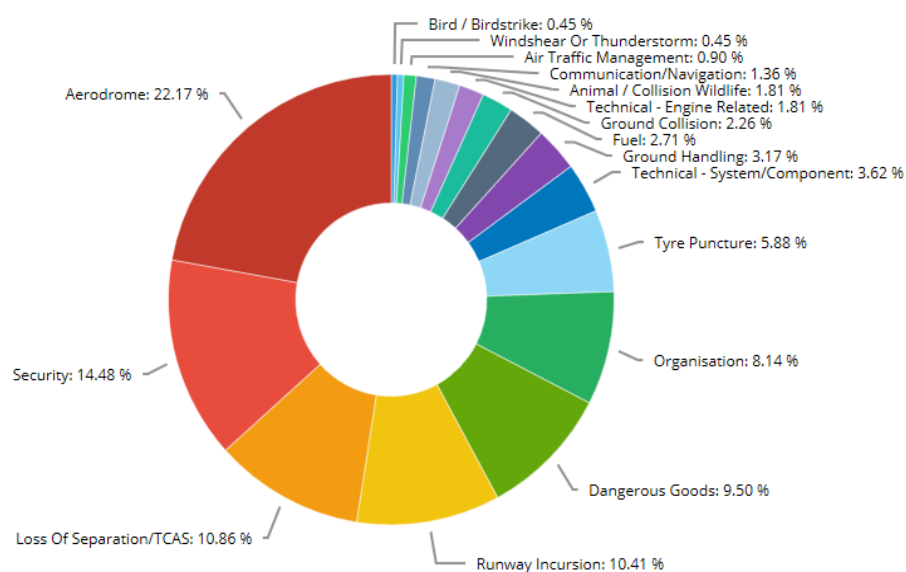


Source: PIC RED914 / CPT O Le Guyader and ICRC file photos

Moderate & High Risk Occurrences Since 2015



ICRC





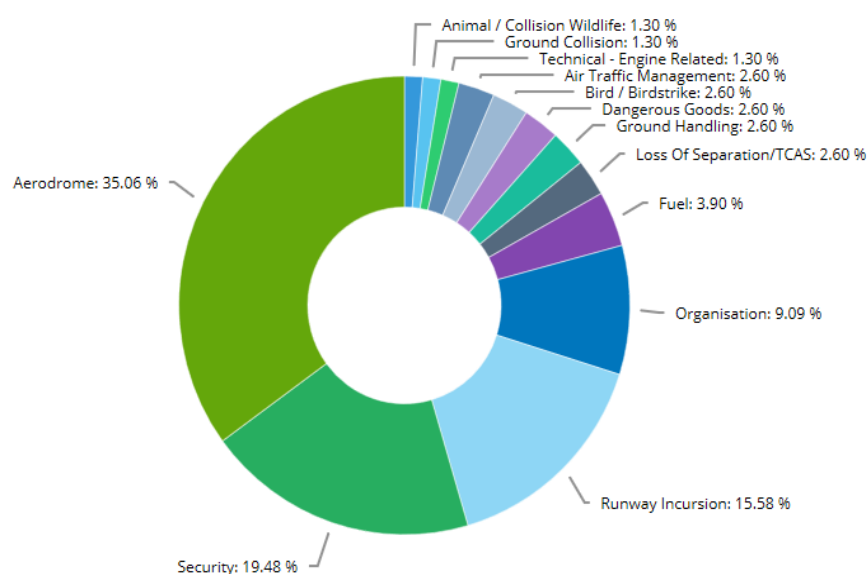
Aerodrome-Related Occurrences with Risks Assessed to:

Moderate or **High**

**46% of All Events That
*Require Mitigation!***



Hazards Assessed as Moderate or High Risk - Since 2015





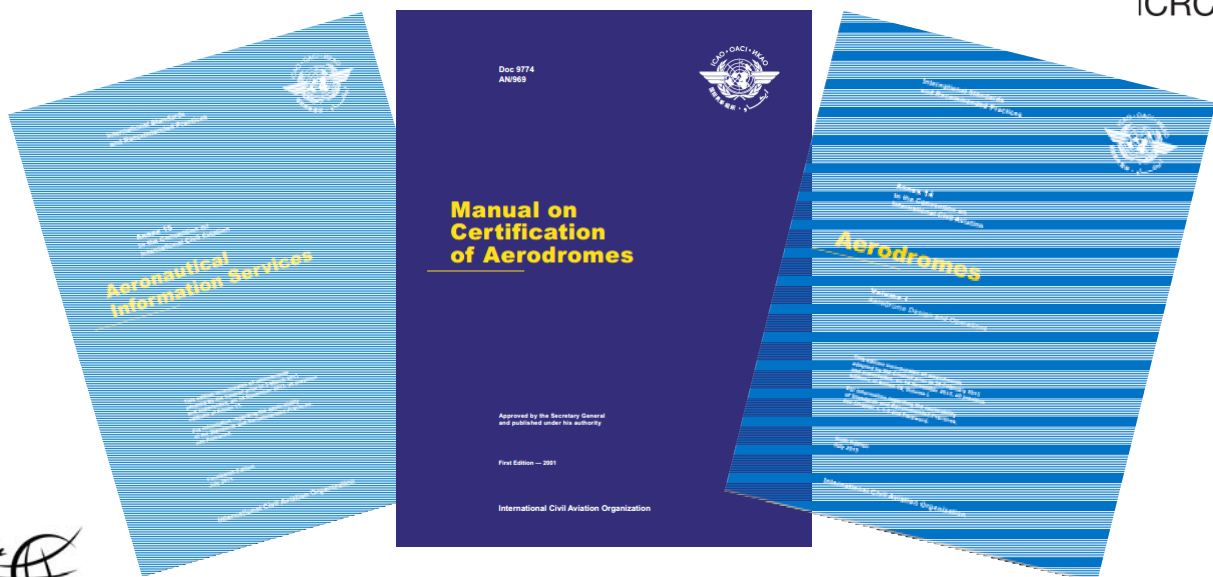
Aerodrome-Related Hazards with Risks Assessed to:

Moderate or **High**

**56% of All Observations That
*Require Prevention!***



Regulations on Aerodromes



Common Deficiencies



ICRC

- Unpaved runway
- Paved but damaged
- Unkept runway
- Loose/sharp stones
- Bushes, trees, tall grass
- Unfenced / no control
- No ATC
- No/everybody in-charge
- Insecurity
- No Coordination
- Congestion
- Parking on the runway
- In built-up (crowded) area
- Next to IDP camp
- Used as a road / pathway
- Next to dump site
- Next to animal water well
- Presence of wildlife



Aerodrome Deficiencies: Big Challenge in HumAviation



ICRC

- While lots of progress were made in terms of improving and enhancing the standards in personal training and currency, flight operations, equipment standards, meeting regulatory documentation requirements, insufficient efforts in improving the condition of the operating environment (airfield / aerodrome status).
- Some of the influencing factors include:
 - *Most airfields are inaccessible for most CAA aerodrome personnel;*
 - *Lack of funds and the resources to do the required rehabilitation;*
 - *Lack of expertise or personnel allocated in following up aerodrome issues;*
 - *No lobbying or commercial pressure to maintain or do the required airfield repairs;*
 - *The airfields are only interesting for humanitarians and local charter operators;*
 - *Organizations do not allocate specific budgets/funds for airfield rehabilitation;*
 - *Development agencies are not alerted to the need to improve access to communities;*
 - *No one is responsible for maintaining the airfields thus continued deterioration.*



SOP for Routine Operations



- Prior to aircraft arrival - presence of ICRC is required.
- If no presence, alternative reliable source is needed.

(Field Focal Point that provides following info)

- *Weather information (WX OK);*
- *Surface condition (RWY OK);*
- *Security situation (SEC OK).*



SOP for Routine Operations



- Field Focal Points are also in-charge of:

- *Clearing of the airstrip of animals, people and vehicles;*
- *Communicating final green-light to arriving aircraft;*
- *Liaison with local officials/communities crowd control;*
- *Coordinating the loading / un-loading (pax/cgo) and refueling if needed;*
- *Ensuring aircraft and crew security while on ground.*



Airfield-related deficiencies lead to serious incidents:



Limiting Factors



- Training for field focal points on operational green-lights.
 - *Operational greenlight is based on what the field teams on ground can see and negotiate; they are not trained on how to evaluate all aspects of risks to aircraft operations.*
- No budget to address deficiencies in the operating environment.
 - *Concerns might not be addressed in timely manner prompting to suspend operations to the concerned airfield/airstrip.*



Belet Uen — 2018 (actual occurrence)



ICRC

Category Aerodrome

ERC Recommendation Given the repeated tyre punctures and the lack of needed rehabilitation work at the airstrip, operations to Belet Uen carry considerable safety risks. Based on Risk Assessment carried out on 19 February 2018, it was concluded that it was not safe to continue operating to this airstrip until the runway is repaired. Previously stated condition of the airstrip: sharp loose stones on runway and parking areas, surface very rough and bumpy towards the middle of the strip. TH04 is displaced by 15-20m due track crossing across. Unmarked wooden pegs along the side of the runway. No fencing around the Airstrip. Frequent animal and human activity around the airfield area.

ERC Risk Index 100



Belet Uen — 2018 (actual occurrence)



ICRC

Risk Level ▾	Risk Rank	Comment
100	Acceptable w/ Mitigation	Assessment carried out on Belet Uen revealed that due to too many large sharp/loose stones on the runway and taxiway risk of aircraft damage is high. These loose stones can also result in damage to the engines, aircraft propellers, and undercarriage and frequently as reported puncture tyres. They also affect the braking capability of the aircraft thereby increasing the risks of overrun. 4 tyre punctures were experienced in the past 3 weeks (3 ICRC aircrafts). AirOps supported company assessment concluded the suspension of Dash-8 operations until the runway is reconditioned to unacceptable level.
Triggering Event	Three tyre puncture in Belet Uen in the last 10 days; all due to loose stones in the middle section of the runway.	
Undesirable Operational State	Damage to propellers, undercarriage and the repeated tyre burst may contribute to loss of control of the aircraft during landing or takeoff maneuvers. The too many loose stones compromise the braking capability of the aircraft.	
Accident Outcome	Tyre burts on landing may result in loss of control of the aircraft, as well the loose stones may also result braking actions not function therefore runway excursion.	
Describe the Barriers to Avoid the UOS	To collect loose stones, compact and grade the middle-section of the runway and rehabilitate the remaining sections of the runway as required.	
Describe the Barriers to Recover Before the Accident	Suspend operations to this airfield until the runway is rehabilitated	
Frequency of Initial Event	Almost every flight	
The barriers will fail in AVOIDING the UOS	Once every 100 times	
The barriers will fail in RECOVERING the situation before the ACCIDENT	Once every 1000 times	
Severity of Outcome	Major	
SIRA Risk Class	STOP	

**Decision : STOP
FLYING TO BELET UEN**

Cooperation among Humanitarian Organizations



Tuesday, May 15, 2018 11:49

Pibor is a difficult place and over the last months more and more people have moved back there - hence the activities around the airport have increased. There used to be a fence around this airport but it is not any more effective. ICRC do not have a permanent presence in Pibor and the South Sudan Red Cross (SSRC) employees normally receive the ICRC aircraft. The crowd issue in Pibor was raised in the last two safety meetings with aircrews. AirOps approached UNMISS in the hope they can assist in installing fence on this airstrip but they've declined. The ICRC also approached MSF to help/assist the SSRC staff in clearing the runway when ICRC aircrafts are operating to Pibor. Also, Bor Sub-delegation has approached and pressured the local authorities to secure the airstrip when ICRC aircrafts are operating there. The ICRC now plans to have presence in Pibor and will soon have a base manager and two drivers that will be permanently based in Pibor. They will be responsible for securing (hiring additional daily workers as required), to clear/secure the airstrip when ICRC aircraft is operating.

MSF + South Sudan Red Cross + ICRC



Cooperation among Humanitarian Organizations



Description of the Occurrence

Following our mission to Kaga on the 18th of February, I would like to register my appreciation on the significant improvement of the safety and security at Kaga airfield. The surface has been very well compacted and the runway width is wider than I have seen it in a long while. The apron area (around the threshold of runway 35) has been cordoned off with cords to keep the population away as well as soldiers who form some kind of human shield. Security presence is heightened. There were adequate forces from the UN. The apron and runway in general was clear of FODs.

UN + WFP + ICRC



Proposed Short to Medium-Term Solutions



- Creation of a Task Force or Working Group for Humanitarian Organizations.
 - *That deals with safety issues common or transversal to each organizations and with focus on airfield deficiencies.*
- Pool resources in maintaining access to operational airfields that we commonly use.
 - *Budget planning must include provisions for airfield improvement and maintenance (operators + human organizations).*
- Entrust the airfield control and management into the community.
 - *Focal person/persons must be appointed and trained from the local community in managing the airfield.*



Thank you for your attention!

*"The distance between Expectation
and Reality is called 'Action'"*

-unknown

