Issue 07/Jan 2026

SAFETY BULLETIN

Simrik Air

Always standby at your service.....

Message from Accountable Manager

I am proud to announce the 7th issue of our Safety Bulletin. The safety bulletin is issued to promote, share the safety information and commit to improving flight safety awareness.
As your Accountable Manager, I believe that a strong safety culture is the foundation of our success and it requires the active participation of every single person in our organization. The safety bulletin serves as a reminder of our shared responsibility to maintain a safe working environment .If you see something unsafe, report it. A swift report can prevent an incident.
Our non- punitive reporting policy encourages you to report unintentional errors without fear of reprisal. Your vigilance is crucial .By working together and prioritizing safety in all that we do, we can protect ourselves, our colleagues and our assets. Safety is not just a priority; it is a core value that strengthens our organization. I expect everyone to think and work safely at all times, regardless of any pressure to do otherwise.
Lastly, I would like to thank all who have contributed to the publication of this bulletin and readers are always welcome to provide feedback and suggestions.

Siddartha Jang Gurung
Pilot/Accountable Manager

ABSTRACT

This issue of safety bulletin highlights that safety should be the primary concern in all our operations. The main purpose is to convey all involve in day to day operations regarding the importance of reporting to enhance safety along with issues related to aircraft engineering design. Also safety is the responsibility of all not just the concerned departments or designated individuals.

Safety Issues Related to Engineering Design and Maintenance in Aviation

Engineering Design Safety Issues

Engineering design is a critical factor in aviation safety. Poor design choices can lead to system failures, increased pilot workload, or maintenance difficulties. For example, if aircraft components are not designed with sufficient strength or durability, they may suffer from fatigue cracks over time. Inadequate consideration of real operating conditions—such as vibration, temperature changes, and repeated stress cycles—can increase the risk of structural failure.

Another major design-related safety issue is the lack of redundancy in critical systems. Aviation engineering standards require backup systems so that if one component fails, another can take over. When redundancy is insufficient or poorly implemented, a single failure can compromise overall aircraft safety. Additionally, designs that are overly complex can make troubleshooting difficult and increase the likelihood of human error during operation or maintenance.

Maintenance Safety Issues

Maintenance is essential to ensuring that an aircraft remains safe throughout its service life. One key safety issue is inadequate or improper maintenance procedures. If inspections are rushed, skipped, or performed incorrectly, defects such as worn parts, corrosion, or loose fasteners may go undetected. These issues can gradually worsen and eventually lead to mechanical failure.

Another maintenance-related safety concern is poor communication and documentation. Maintenance engineers rely on accurate records to track repairs, inspections, and component life limits. Incomplete or incorrect documentation can result in missed inspections or the use of components beyond their safe operating limits. Additionally, insufficient training or fatigue among maintenance personnel can increase the risk of errors.

Interaction Between Design and Maintenance

Design and maintenance are closely connected in aviation safety. Aircraft that are not designed for easy access during inspections can make maintenance tasks more difficult and increase the chance of mistakes. Engineers must consider maintainability during the design phase by ensuring components are accessible, clearly labeled, and supported by clear maintenance manuals. Good design reduces maintenance errors and improves long-term safety.

Conclusion

Safety issues in aviation engineering design and maintenance can have serious consequences if not properly managed. By focusing on robust design, redundancy, clear documentation, and proper maintenance practices, engineers can significantly reduce risks. Continuous training, strict regulations, and feedback from maintenance operations are essential to improving both design quality and aircraft safety.

FADEC (5 Ways to Manage an Inflight Helicopter Crisis)

Decision aids are easy-to-remember lists intended to support the decision maker and to avoid errors. They are particularly beneficial in the case of critical and stressful situations and they can help manage a crisis by prioritizing the tasks.

- **Fly the helicopter** - Be aware of aircraft limitations and if the conditions permit, use all available aircraft automation systems such as auto-pilot, etc.
- **Assess the situation** - More time spent assessing the situation can lead to a better outcome. Try to avoid snap decisions unless the time available is very short.
- **Decide a workable option** - Refer to your emergency or abnormal checklist and follow an option where the hardware (machine), software (procedures), and liveware (you the human) can function best.
- **Evaluate** - Continue assessing the situation and action as the situation evolves.
- **Communicate** – Talk with air traffic control and other personnel as appropriate for collaborative decisions and review.

NORMS IN GROUND OPERATIONS

The key component of NORMS in ground operations and their management strategies. "N-O-R-M-S " can be specified in more detail:

N - NORMAL

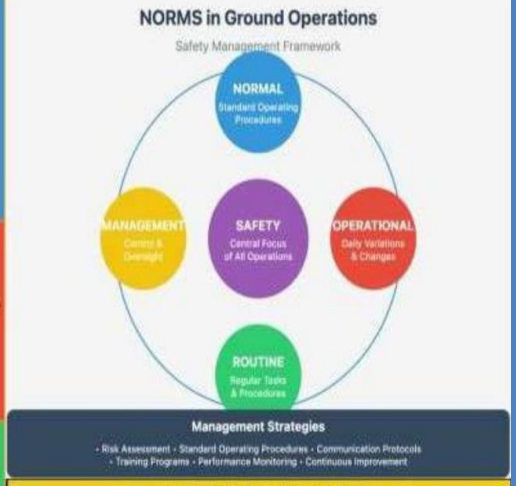
- Represents standard, expected conditions and operations.
- Baseline procedures that form the foundation of safe operations.
- The documented way operations should be conducted.

O – OPERATION

- The actual conditions and situations encounter daily.
- How operations adapt to changing circumstances.
- Real-world variations from "Normal" state.
- Dynamic aspects of ground operations.

R - ROUTINE

- Regular, recurring tasks and procedures.
- Day-to-day activities that must be consistenly performed.
- Habitual practices that can lead to complacency.



M – MANAGEMENT

- Oversight and control of all ground operations.
- Resource allocation and coordination.
- Decision-making processes and authority.

S – SAFETY

- Risk assessment and mitigation.
- Protection of personnel, equipment,and aircraft.
- Compliance with safety regulations and standards.

Report Everything

Typically most organizations will have their own reporting system. Some of these will cover more than just safety occurrence reporting, so an aviation regulator will not want all of their reports. The organization may then have a process to review their reports to select those to file with their regulator, which would certainly include those on that mandatory list and those they feel they should share, voluntarily.

Everyone is free to report and people are free to file mandatory or voluntary reports.

Why do you want lots of reports, surely you want fewer?

The key to answering this question is that we do not want more serious incidents and accidents with their associated reports, particularly if they were preceded with lots of similar near misses and/or repeats of previous incidents and accidents that weren't reported. What we do want is lots of reports of near misses, any accidents with lessons learnt to prevent the serious incidents and accidents. So, overall we would have more reports, but they would be of less serious incidents.

As complex and evolving as aviation is it is important that we constantly learn, we'll probably never get to a **'no report '**situation. No reporting is not good, as there'll be less learning and improving.

FATIGUE MANAGEMENT A CORNERSTONE OF SAFETY MANAGEMENT

Globally, fatigue has been blamed in numerous aviation accidents and incidents over the years. This is a trend not just found with pilots however, but occurs in air traffic control, engineering and ground handling agencies and all other aviation agencies. Most operators are strict in ensuring employees remain within their duty time limitations but this is really only part of the issue. It includes how the staff are rostered, and how the employee manages his mind and body. But how can a person recognize when he or she is too tired to do the job required of him? What roles do sleep cycles; de- hydration, nutrition and illness play in identifying and responding to fatigue?

"My mind clicks on and off. I try letting one eyelid close at a time while I prop the other with my will. But the effect is too much, sleep is winning, my whole body argues dully that nothing, nothing life can attain is quite as desirable as sleep. My mind is losing resolution and control."

Charles Lindbergh about his 1927 transatlantic flight.

Causes of fatigue

- Inadequate sleep due to circadian or "biological clock" disruptions associated with rotating work and rest schedules and time zone transitions (shift lag and jet lag). For example, during a layover a pilot may attempt to sleep when his mind is telling him to be awake and active and vice versa.
- Extended duty time or long periods of wakefulness leading to increased sleep pressure.
- Early morning report times that occur during normal periods of sleep. The human brain is 'hard wired' to sleep during dark hours and be awake and active during daylight hours also known as the sleep-wake.

EDITORIAL

Your constructive ideas and feedbacks are always welcome to improve our services and feel free to reach us by any means suitable for your safety reports.

- Prashansa Shrestha- Safety Manager
- Parmeswar Shrestha- Dy Quality Manager
- Bimal Khadka- (FOO/Safety Officer)

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SAFETY CULTURE

An organizational culture exists in every workplace. It is manifested by "How we do business around here". It is an enduring set of beliefs, norms, attitudes and practices with- in an organization concerned with minimizing exposure of the work- force and the general public to dangerous or hazardous conditions. A positive safety culture is one which promotes concern and accountability for, and commitment to safety. Safety Management Systems (SMS) maintains that a fundamental requirement of a successful SMS and therefore a safety record for each organization starts with having a positive safety culture. An organization's safety culture is crucial to its safety achievement. The ideal safety culture supports staff and systems, recognizes that errors will be made, and believes blaming staff will not solve problems.

A positive and supportive safety culture encourages open and honest reporting, seeks to learn from its failures or mistakes, and is open and fair in dealing with those involved.

Trust—an atmosphere of trust exists in the organization. Staffs know that if they have made an error senior management will be interested and supportive to hear how it was resolved, or assist in resolving the matter.

Support—senior management openly supports, promotes and encourages an open and fair reporting culture and a positive and supportive safety culture. This means it has clear guidelines on how errors and violations will be treated. These guidelines should be visibly endorsed by the Accountable Executive and made available to all staff.

Safety Concerns?
Report Now

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