HELI EVEREST®
PRIDE OF HIMALAYAS

SAFETY BULLETIN

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MESSAGE FROM THE MANAGING DIRECTOR

At Heli Everest, safety is not just a priority— it's the cornerstone of our operations, guaranteeing the well-being of our passengers and crew. Navigating the rugged landscapes of Nepal, especially around the Himalayas, requires unwavering adherence to top-notch safety protocols and practices. Continuing our tradition, I am pleased to share the fifth edition of our Safety Bulletin. This bulletin outlines our dedication to aviation safety advancements and serves as a resource to promote safety within our Heli Everest team and helicopter companies in Nepal. Our focus remains on elevating safety standards, achieving significant milestones, and advancing our safety objectives.

Guided by the motto "Safety First," our management team emphasizes safety as the foundation of our operations. We remain committed to safety in daily activities, prioritizing it in every decision, ensuring responsibility is distributed among all team members, and planning proactively for safety measures. We provide comprehensive safety training, comply with standards set by the Civil Aviation Authority of Nepal (CAAN) and the International Civil Aviation Organization (ICAO), and strive for annual safety achievements, maintaining our long-term safety policy.

Lastly, I extend my sincere appreciation to all who have trusted us. We are excited to announce the expansion of our fleet with two new H125 Airbus Helicopters and enhancements to our team's operational capabilities in 2024. Our guests are our top priority, and we remain dedicated to ensuring their satisfaction. We welcome feedback from passengers and partners to improve our measures and ensure everyone's well-being. Thank you for your ongoing support, and we look forward to the opportunity to serve you in 2025!

Fur Gelje Sherpa (Phurba)
Accountable Manager/Managing Director

MESSAGE FROM THE SAFETY DEPARTMENT:

We are delighted to present the fifth edition of our Safety Bulletin 2024, designed to enhance aviation safety and encourage continuous improvement in the Safety Culture within the organization. This edition contains valuable and informative materials on safety-related topics. We hope this Safety Bulletin will contribute significantly to fostering a positive safety culture, within Heli Everest and throughout the aviation industry.

- Geeta Shrestha, **Safety Manager**

FLIGHT IN MOUNTAINOUS TERRAIN

- Terrain awareness is critical for safely flying in mountainous areas because a momentary loss of situational awareness could result in navigation errors, such as turning into a blind canyon.
- Understanding aircraft performance is vital when flying in the mountains, as it decreases with rising density altitude, resulting in a larger turn radius for the same indicated airspeed and bank angle.
- Sufficient visibility is imperative for safe mountain flying; even a temporary decrease can cause navigational mistakes or lead to Controlled Flight Into Terrain (CFIT).
- Flying in icing conditions without an ice-protection system may lead to a stall, loss of control, CFIT, or forced landing.
- Wind is almost always a factor when operating in mountainous terrain.
    - The wind in mountainous areas can be compared to water navigating through a rocky stream. Similar to the water, the wind is channeled and redirected by obstacles, resulting in the formation of updrafts and downdrafts.
    - Winds as little as 25 knots can cause downdrafts exceeding the climb capability of a light aircraft or mechanical turbulence that could lead to structural failure.
    - Turbulence is often encountered; pilots should always anticipate it, especially in hilly and mountainous terrain. Keep a positive grip on controls and reduce airspeed to the recommended Rotorcraft Flight Manual (RFM) 'turbulent airspeed.'
- The old adage "when in doubt, chicken out" applies well to mountainous terrain flight; make the turn-back decision early.

FUEL IN HELICOPTER OPERATION

Fuel Exhaustion and Fuel Starvation: Fuel exhaustion occurs when you run out of fuel, while fuel starvation happens when fuel is on board but not reaching the engine due to blockages or settings.
Preventive measures for Aircraft Fuel Management:

- Know your fuel quantity at all times through measurement and visual confirmation.
- Avoid depending too much on fuel gauges.
- Ensure your aircraft has a fuel reserve for each flight.
- Monitor the fuel burn rate consistently.
- Familiarize yourself with your aircraft's fuel system and use appropriate checklists.

HAZARD AND RISK - THE PAVE CHECKLIST

The *PAVE* checklist helps pilots easily assess and incorporate risk factors into their preflight decision-making by categorizing them into four groups.

- **P: Pilot-in-Command (PIC):** Assess preparedness by considering experience, recency, relevance, and both physical and emotional condition. The pilot is one of the risk factors in a flight. The pilot must ask, "Am I ready for this trip?" in terms of experience, recency, currency, and physical and emotional condition.

- **A: Aircraft:** Assess aircraft limitations, suitability, and equipment for the flight.

What limitations will the aircraft impose upon the trip? Ask the following questions:

  - Is this the right aircraft for the flight?
  - Am I familiar with and current in this aircraft?
  - Is this aircraft equipped for the flight? Are the instruments, lights, and navigation and communication equipment adequate?
  - Can this aircraft carry the planned load?
  - Can this aircraft operate at the altitudes needed for the trip?
  - Does the aircraft have sufficient fuel capacity, with reserves, for the planned trip legs?

- **V: enVironment:** Assess current and forecasted weather, visibility, and wind, especially in the mountains. Weather is a key environmental factor. Pilots should evaluate the weather for a flight considering the following:
  - What is the current ceiling and visibility?
  - In mountainous terrain, consider having higher minimums for ceiling and visibility, particularly if the terrain is unfamiliar.
  - Consider the possibility that the weather may be different than forecasted.
  - Have alternative plans and be ready and willing to divert should an unexpected change occur.
  - Consider the wind at the airports and the strength of the crosswind component.
  - If flying in mountainous terrain, consider whether there are strong winds aloft. Strong winds in mountainous terrain can cause severe turbulence and downdrafts and be very hazardous for aircraft even when there is no other significant weather.
  - Are there any thunderstorms present or forecasted?
  - If there are clouds, is there any icing, current or forecasted? What is the temperature/dew point spread and the current temperature at altitude?
  - Can descent be made safely all along the route?
  - If icing conditions are encountered, is the pilot experienced in operating the aircraft's deicing or anti-icing equipment? Is this equipment in good condition and functional? For what icing conditions is the aircraft rated, if any?
  - *Terrain*: Evaluation of terrain is another important component of analyzing the flight environment. To avoid terrain and obstacles, especially in low visibility, determine safe altitudes in advance by using altitudes shown in flight charts during preflight planning. Use maximum elevation figures (MEFs) and other easily obtainable data to minimize the chances of an in-flight collision with terrain or obstacles.
  - *Airport*: Check the Notice to Airmen (NOTAM). Choose the flight route wisely. Be prepared for alternate landing spaces in case of an emergency. If the trip is over remote areas, ensure appropriate clothing, water, and survival gear are on board.

- **E: External Pressures**: Manage external pressures like time constraints by setting personal SOPs and managing passenger expectations. Handling these pressures is crucial for risk management, as they can lead pilots to overlook other risk factors.
  - Pride can be a powerful external factor—emotional pressure associated with acknowledging that skill and experience levels may be lower than a pilot would like.
  - External pressure puts time-related pressure on the pilot and figures into a majority of accidents.
  - The use of personal standard operating procedures (SOPs) is one way to manage external pressures.
  - Another way is to manage passengers' expectations. Make sure passengers know that they might not arrive on a firm schedule, and if they must arrive by a certain time, they should make alternative plans.
  - Eliminate pressure to return home, even on a casual day flight, by carrying a small overnight kit.
  - The key to managing external pressure is to be ready for and accept delays. The pilot's goal is to manage risks, not create hazards.

HELICOPTER ROTOR BLADE HAZARD

- Rotor blade injuries are inherent hazards of helicopter operations.
- A rotating rotor blade striking an object can result in a catastrophic event.
- Despite safety efforts, accidents involving human contact with rotor blades persist, often with fatal consequences.
- Professional training alone does not guarantee protection from rotor blade injury.
- Helicopter crews must maintain situational awareness around turning blades.
- Constant care and vigilance are required to minimize accidents.
- Noise from the engine and rotor downwash can obscure blade noise.
- Tail rotor blades account for nearly three-quarters of U.S. helicopter rotor blade accidents.
- Continuous awareness programs, such as safety seminars and proper education, are essential to reduce accidents.

EIGHT BUILDING BLOCKS FOR SAFETY MANAGEMENT:

1. Senior Management Commitment to the Management of Safety
2. Effective Safety Reporting
3. Continuous Monitoring
4. Investigation of Safety Occurrences
5. Sharing safety lessons learned and best practices
6. Integration of Safety Training for Operational Personnel
7. Effective implementation of SOPs
8. Continuous improvement of the overall level of safety

Implementing these blocks will create an organizational culture that fosters safe practices, encourages effective safety communication, and actively manages safety.

Lastly, Heli Everest remains steadfast in its mission to provide safe and reliable helicopter services in the breathtaking landscapes of Nepal. Our commitment to safety is a continuous journey, intending to achieve excellence through innovation, rigorous training, and adherence to the highest safety standards. We invite feedback and collaboration from our passengers and partners to further enhance our safety measures and ensure the well-being of all who fly with us.

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