



IHST

International Helicopter Safety Team

Our Vision: An International Civil Helicopter Community With Zero Accidents

Training Fact Sheet – Instructional Safety

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Training Safety or Training Safely?

Training Safety is using tools to develop a “safe attitude” in pilots, be they Student Pilots, Commercial Pilots or Flight Instructors. It is the responsibility of the Pilot-In-Command (PIC) to utilize all available tools to assess risk, execute the training mission and return everybody in a safe and relaxed manner.

Training Safely is the idea that Flight Instructors, Pilot Examiners and pilots have a stake in safely conducting the flight.



A helicopter training mission should be treated just like any other mission-SAFETY FIRST. Safety during a training mission is just as important as during a mission involving passengers or cargo, maybe even more important considering that helicopter training accidents account for over 22% of all helicopter accidents industry wide-the largest percentage by activity!

Real World Risk Management

The importance of Risk Management should always be emphasized when discussing the topics of Training Safety and Training Safely. Too often, helicopter accidents occur, because pilots discount their responsibility as PIC defined

by 14 CFR 91.3, stating that each pilot is directly responsible for and is the final authority as to the operation of the aircraft. Couple this responsibility with the preflight actions required under 14 CFR 91.103 and you begin to understand how important the PIC is in regards to Risk Management. Generally speaking, Risk Management is the identification, assessment and prioritization of risks followed by the application of resources to minimize, monitor and control the probability of unfortunate events taking place. This Fact Sheet provides suggestions for helping pilots mitigate certain risk factors inherent to all helicopter training missions.

Safety Considerations for Flight Training

Aircraft Pre-Flight/Pre-Flight Briefing

Verifying the airworthiness of the helicopter by conducting a thorough pre-flight is often thought of as being too time consuming, rather than the first line-of-defense for ensuring safety. Discovering aircraft deficiencies on the ground can strengthen pilot confidence and minimizes heroic effort in the air. Pilots are encouraged to think of each aircraft discrepancy found and dealt with on the ground as one less emergency situation they would have had to deal with in the air. Numerous in-flight emergencies that ended tragically could have been avoided had the pilots conducted a thorough pre-flight inspection prior to those fateful flights.

The willingness to say “NO”

When faced with a difficult GO-NO-GO decision, the human brain can play tricks on pilots. Making conservative choices can be a daunting task regardless of one’s flight experience. The courage and willingness to say “NO” is a powerful defense from getting in over one’s head. Pilots often accept unnecessary risks comparative to their proficiency and skill level.

Unfortunately, numerous accidents have occurred, because pilots have put themselves into situations far exceeding their true capabilities.

The Abilene Paradox illustrates the importance of saying “NO” when faced with uncertainty. The Abilene Paradox centers on a family vacation, where no individual family members really wanted to go, but everyone resisted in telling anyone else in fear of disappointing others. This paradox serves as a warning to always remember the power of external pressures and the influence such pressures can have over our decision making process in the cockpit. Remember, it’s easy to say “Yes” and go with the flow, but it takes courage to say “NO” when faced with uncertainty. Listening to that “small voice” in the back of your head can often save you from a lot of headache!

Critical Factors Influencing Safety

The following factors should be carefully considered, before each training mission to help ensure safety. These factors can have a tremendous influence on the overall success of the training mission:

CLEAR AND OPEN COMMUNICATIONS:

- Standard Operating Procedures and callouts should be well defined and complied with.
- Establish a healthy Student/Instructor Relationship.

PILOT DISCIPLINE:

- Do the right thing right-NO Shortcuts.
- Follow the rules.
- If it’s not right-GO AROUND.

THOROUGH PREPARATION:

- Be-in-the-moment: Training State of Mind.
- Mitigate distractions.
- Know your personal limitations.
- Know the aircraft’s limitations.
- Mentally rehearse the entire training mission.

TIMELY INSTRUCTOR INTERVENTION:

- Don’t count on the other pilot, because they’re probably counting on YOU!
- Positive exchange of the flight controls.
- Established TRUST.

Some training events turn ugly, because pilots are not mentally prepared. Always thinking ahead is the name of the game when it comes to Risk Management and safety. Helicopter pilots who think ahead or subconsciously rehearse the “what if” scenarios, are more likely to handle abnormal and emergency situations more effectively and timely.

The Synthetic Environment

Helicopter simulators offer a number of benefits making these devices a huge asset in the General Aviation helicopter training market. When employed as part of a well designed training syllabus, simulators contribute to higher quality and lower cost training. First and foremost, helicopter simulators keep pilots safe as they learn complicated and sometimes risky maneuvers. Secondly, simulation adds a layer of consistency, convenience, and opportunities for practice toward achieving training objectives in a timely manner. Third, the simulator offers a quiet, less stressful learning environment where tasks can be introduced and explained by the instructor in a more controlled and less stressful environment.

Using simulators, instructors have the opportunity to demonstrate flight control malfunctions such as loss of control or loss of tail rotor, stuck pedals and malfunctions leading to full down autorotations in a low-risk environment. Pilots can also be trained to handle normal and abnormal situations considered too risky to practice in real flight.



There’s no doubt that utilizing helicopter simulation tools can offer a lower cost alternative compared to training in the actual aircraft. The cost of training in the actual aircraft involves such variables as fuel, maintenance, overhead, and insurance premiums, to name a few. However, the real advantages for simulator-based training are increased safety for the instructor/student, better quality training, and additional opportunities for learning.

More information about the IHST, its reports, its safety tools, and presentations go to www.IHST.org.

