

**Helicopter Safety Enhancement (H-SE) 116:
Improve Make/Model Transition Training**

Safety Enhancement Action:	Training: FAA and industry improve make/model transition by ensuring familiarity and understanding of new “model specific” equipment.
Expected Implementers:	<ul style="list-style-type: none"> • USHST – Special Emphasis Area (SEA) Training Team • FAA – AFS-630, AFS-810, FAA Safety Team (FAAST) • Helicopter Association International (HAI) Training Committee (TC) • Helicopter Association International (HAI) Safety Committee (SC) • General Aviation Manufacturers Association (GAMA) • Helicopter OEMs • Flight training providers • Flight simulation companies • Aircraft Owners and Pilots Association (AOPA) • Experimental Aircraft Association (EAA) • General Aviation Joint Steering Committee (GAJSC) • Airborne Law Enforcement Association (ALEA) • Instructional design companies (e.g. ASA/ KING/ etc.) • National Business Aviation Association (NBAA) • Utilities Patrol and Construction (UPAC) • Air Medical Operators Association (AMOA) • Tour Operators Program of Safety (TOPS) • Helicopter Safety Advisory Conference (HSAC) • Society of Aviation and Flight Educators (SAFE) • National Association of Flight Instructors (NAFI) • Existing aircraft type clubs
Statement of Work:	<p>Transition training in the helicopter community is not uniformly applied, leading to accidents resulting from unfamiliarity with airframe and/or equipment.</p> <p>The USHST will initiate an update to existing documentation related to helicopter transition training. This effort will review existing guidance related to transition training from organizations such as AOPA, EAA, FAA, GAJSC, and HAI. USHST can combine these recommended practices into a</p>

new, unified guide of recommendations and create a toolkit to support standardized use.

Once materials related to transition training are constructed, the USHST should work with the FAA and industry to conduct an outreach campaign to communicate the need for transition training, including Aeronautical Decision Making (ADM) considerations. The outreach to pilots of these aircraft will encourage use of standardized recommendations and toolkits for providing safe and essential training on model specific requirements. One of the effective conduits for this form of outreach is aircraft type clubs.

Aircraft type clubs are groups of owners and operators centered around particular aircraft. The nature of type clubs gives them the potential for serving as great advocates in the promotion and education of the actions of this safety enhancement. To reduce loss of control accidents, the USHST will promote development and use of type clubs to capture and disseminate critical safety-related information. The members of type clubs are owners/operators most familiar with the operating characteristics, procedures, and maintenance issues specific to a particular aircraft. They are in an excellent position to develop, communicate, and promote safety mitigation strategies that target loss of control accidents. Large fleet aircraft operators such as large flight schools are also very familiar with the operating characteristics and procedures specific to particular aircraft. The USHST also will leverage these organizations for safety strategies and info sharing that target improving make/model transition as a means of reducing loss of control accidents.

Following successful outreach to aircraft type clubs and associations, the USHST recommends the development of web-based tools that will aid in standardization of transitioning to unfamiliar helicopter models. As previously noted, it is essential that these tools include consideration of ADM.

Project:

1. USHST will review best practices and recommendations related to transition training developed and published by other organizations (*e.g.*, AOPA, EAA, GAJSC). USHST will use these materials to create updated and unified recommendations regarding transition training in helicopters.

	<ol style="list-style-type: none"> 2. USHST will work with the FAA and industry to promote and educate on the new unified recommendations for transition training in helicopters. 3. USHST will work with industry to increase implementation of transition training toolkit by expanding capability for ease of day-to-day operational use. 4. USHST will promote creation of helicopter type-specific groups (e.g., type clubs) to establish a more formalized network for ongoing information sharing regarding transition training. <p>The following fatal accidents prompted this safety enhancement: ERA10FA283 ERA09FA497 CEN10FA424</p>
Relation to Current Aviation Community Initiatives:	<p>GA-JSC Efforts:</p> <ul style="list-style-type: none"> • SE-5, Transition Training. Development of Web-based tools that will aid in all aspects of transition to unfamiliar aircraft across GA, to include Aeronautical Decision Making (ADM) (see ADM Detailed Implementation Plan), to identify the risk of inadequate training when operating unfamiliar equipment. Public education campaign on the importance of transition training. • SE-7, Type clubs and operator groups will review the airplane’s existing procedures, if any, and develop simplified procedures and checklists for missed approach, go-around, and other critical phases of flight to reduce the likelihood of fatal loss-of-control accidents caused by high pilot workload. <p>USHST H-SEs:</p> <ul style="list-style-type: none"> • H-SE 70. Technology/Equipment: Industry adapt or install stability augmentation system (SAS) and/or simple autopilot. • H-SE 123. Training: Industry to increase the use of relevant simulation to rehearse at risk scenarios to develop safe decision making and educate. <p>USHST Intervention Strategies, below the Mendoza Line:</p> <ul style="list-style-type: none"> • IS 92. Technology/Equipment: Industry to research "red button" system to recover the aircraft to a safe flight configuration following pilot disorientation. • IS 119. Training: Special emphasis on preflight performance planning calculations, the potential consequences of poor preflight performance planning, and using performance planning in risk assessment and mitigation.

Performance Goal Indicators:	<ul style="list-style-type: none"> • Creation of transition training toolkit. • Effective outreach to industry on transition training toolkit. • Advancing transition training toolkit technology to allow practical day-to-day use. • Establish info share groups for ongoing communication on transition training issues. 																								
Key Milestones:	<table border="1"> <thead> <tr> <th></th> <th><u>Total Months</u></th> <th><u>Start Date</u></th> <th><u>End Date</u></th> </tr> </thead> <tbody> <tr> <td>Output 1:</td> <td>18</td> <td>Dec. 1, 2017</td> <td>June 1, 2019</td> </tr> <tr> <td>Output 2: (in parallel with Output 3)</td> <td>6</td> <td>June 1, 2019</td> <td>Dec. 1, 2019</td> </tr> <tr> <td>Output 3: (in parallel with Output 2)</td> <td>12</td> <td>June 1, 2019</td> <td>June 1, 2020</td> </tr> <tr> <td>Output 4:</td> <td>18</td> <td>June 1, 2020</td> <td>Dec. 1, 2020</td> </tr> <tr> <td>Completion:</td> <td>48 months</td> <td></td> <td></td> </tr> </tbody> </table>		<u>Total Months</u>	<u>Start Date</u>	<u>End Date</u>	Output 1:	18	Dec. 1, 2017	June 1, 2019	Output 2: (in parallel with Output 3)	6	June 1, 2019	Dec. 1, 2019	Output 3: (in parallel with Output 2)	12	June 1, 2019	June 1, 2020	Output 4:	18	June 1, 2020	Dec. 1, 2020	Completion:	48 months		
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Potential Obstacles:	<ul style="list-style-type: none"> • Lack of existing aircraft type clubs • Lack of info share from large operators • Pushback or lack of participation from industry 																								
Detailed Implementation Plan Notes:																									
CICTT Code:	LOC-I, LALT																								
Output 1:																									
Description:	Review best practices and recommendations related to transition training developed and published by other organizations (<i>e.g.</i> , AOPA, EAA, GAJSC) and use these materials to create updated and unified recommendations regarding transition training in helicopters.																								
Lead Organization:	USHST SEA Training Team																								
Supporting Organizations:	<ul style="list-style-type: none"> • HAI TC • AOPA • EAA • GAJSC • NBAA (as conduit to insurance providers) 																								

Actions:	<ol style="list-style-type: none"> 1. USHST SEA Training Team will review existing best practices and recommendations related to transition training. They should request assistance as needed from HAI TC, AOPA, EAA, GAJSC, or any other industry organizations that may have experience developing transition training. 2. USHST SEA Training Team will draft standardized guidelines for transition training to include a gap analysis template for CFIs. The gap analysis template will allow CFIs to identify highest risk areas for pilots of various experience levels transitioning to a different helicopter type. 3. USHST SEA Training Team will review their draft proposal with insurance underwriters for final edits (consider using NBAA to establish connection, if needed). 4. USHST SEA Training Team will publish the transition training toolkit.
Output Notes:	
Time Line:	18 months
Target Completion Date:	June 1, 2019
Output 2:	
Description:	USHST will work with the FAA and industry to promote and educate on the new unified recommendations for transition training in helicopters.
Lead Organization:	USHST Outreach Team
Supporting Organizations:	<ul style="list-style-type: none"> • HAI TC • HAI SC • FAA – AFS-630, AFS-810, FAAST • GAMA • Helicopter OEMs • SAFE • NAFI • AOPA
Actions:	USHST Outreach Team will promote use of the transition training toolkit to the rotorcraft community. Approaches may vary from publications on the USHST website and social media, to promotion in magazines/news, to public presentations at regional events such as FAAST seminars or large gathering events such as HAI’s annual Heli Expo.
Output Notes:	
Time Line:	6 months (<i>for initial outreach</i>)

Target Completion Date:	Dec. 1, 2019
Output 3:	
Description:	Work with industry to increase implementation of transition training toolkit by expanding capability for ease of day-to-day operational use.
Lead Organization:	USHST SEA Training Team
Supporting Organizations:	<ul style="list-style-type: none"> • HAI TC • HAI SC • Instructional design companies (<i>e.g.</i>, ASA, King, Sporty's)
Actions:	<ol style="list-style-type: none"> 1. USHST SEA Training Team will work with instructional design companies in industry to create new methods of delivery for transition training toolkit (web based/ iPad/etc.). 2. Recommend instructional design companies create an assessment app (equivalent of a digital matrix) for the CFI to know the risk areas for a particular student.
Output Notes:	
Time Line:	12 months
Target Completion Date:	June 1, 2020
Output 4:	
Description:	Promote creation of helicopter type-specific groups (<i>e.g.</i> , type clubs) to establish a more formalized network for ongoing information sharing regarding transition training.
Lead Organization:	USHST Outreach Team
Supporting Organizations:	<ul style="list-style-type: none"> • HAI TC • HAI SC • Flight training providers • AOPA • EAA • GAMA • UPAC • AMOA • ALEA • TOPS • HSAC • OEMs

	<ul style="list-style-type: none"> • Existing aircraft type clubs
Actions:	<ol style="list-style-type: none"> 1. USHST Outreach Team will work with HAI TC and existing helicopter industry groups to identify a list of the largest groups requiring info share by make/model. 2. USHST Outreach Team will suggest creation of specific info share groups based on work from Action 1. The info share model suggested may include use of existing helicopter type clubs or may suggest creation of new type clubs based on groups with the highest density of aircraft. Individuals or organizations within industry are necessary to lead and maintain the groups suggested by this model, so USHST will work with GAMA and HAI to find parties willing to lead and maintain the info share groups. 3. USHST Outreach Team will use the new info share groups (to include helicopter type clubs) for ongoing education on use of new recommendations, toolkits, and web-based tools related to transition training, as well as other critical safety issues.
Output Notes:	As groups are created, leaders of info share groups should work with GAMA and HAI to establish an info share access channel to OEMS for use by CFIs in the info share groups. This will allow feedback related to new or emerging transition training issues.
Time Line:	18 months
Target Completion Date:	Dec. 1, 2020