

**Helicopter Safety Enhancement (H-SE) 37:
Add Progressive Approach to Training Autorotations to Helicopter Flying Handbook**

Safety Enhancement Action:	FAA to amend Helicopter Flying Handbook (FAA-H-8083-21A) to incorporate progressive approach to training autorotations.
Expected Implementers:	<ul style="list-style-type: none"> • FAA – AFS-630, AFS-800, AFS-250, FAA Safety Team (FAAST) • USHST Special Emphasis Area (SEA) Training Team • Helicopter Association International (HAI) Safety Committee (SC) • Helicopter Association International (HAI) Training Committee (TC)
Statement of Work:	<p>To help prevent fatal rotorcraft accidents due to improper or poor training techniques, the rotorcraft community needs improved training techniques encouraging the use of a progressive approach during flight training operations. As applied to autorotations, the intended meaning of “progressive approach” is that the maneuver is introduced over a number of flight lessons. The initial lessons introduce the basic concepts and the maneuver is entered and recovered at higher altitudes. In subsequent flights, as the student develops the necessary skills, the level of difficulty is gradually increased when both the entry and the recovery are performed at lower altitudes.</p> <p>The most effective way to further formalize the progressive approach is through the Helicopter Flying Handbook (HFH).</p> <p>Project:</p> <ol style="list-style-type: none"> 1. FAA to work with industry on researching and evaluating helicopter progressive training techniques as detailed in AC 61-140A for autorotations and operational data. 2. FAA to incorporate progressive training findings into the Helicopter Flying Handbook (FAA-H-8083-21A). FAA should work with industry on any other areas that should be addressed in the HFH during this revision. 3. FAA, HAI, and USHST to conduct outreach on the latest revisions of HFH for helicopter operators. <p>The following fatal accidents prompted this safety enhancement: ERA09FA497 WPR13GA128</p>

Relation to Current Aviation Community Initiatives:	<p>The USHST Training Working Group (TWG) and the FAA jointly issued Advisory Circular (AC) 61-140A, which introduced a progressive approach to autorotation training. This document should be used as a reference in incorporating a progressive training approach into the HFH. https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/1029928</p> <p>Other USHST H-SEs (115_128 and 124) also plan to recommend revisions to the same FAA Handbook referenced in H-SE 37. Submission of revisions from each H-SE must be closely coordinated together to ensure consistency of recommendations. There is a benefit to aligning all of them for a single, collective submission with the goal to have all recommendations incorporated during a single revision cycle of the handbook.</p>																				
Performance Goal Indicators:	<p>Progressive training approach published in the HFH. Systematic, deliberate outreach to as many as possible in overall U.S. helicopter community to promote and educate the progressive training approach.</p>																				
Key Milestones:	<table border="0" style="width: 100%; text-align: center;"> <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>12</td> <td>June 1, 2018</td> <td>June 1, 2019</td> </tr> <tr> <td>Output 2:</td> <td>30</td> <td>June 1, 2019</td> <td>Dec. 1, 2021</td> </tr> <tr> <td>Output 3:</td> <td>12</td> <td>Dec. 1, 2021</td> <td>Dec. 1, 2022</td> </tr> <tr> <td>Completion:</td> <td>54 Months</td> <td></td> <td></td> </tr> </tbody> </table>		<u>Total Months</u>	<u>Start Date</u>	<u>End Date</u>	Output 1:	12	June 1, 2018	June 1, 2019	Output 2:	30	June 1, 2019	Dec. 1, 2021	Output 3:	12	Dec. 1, 2021	Dec. 1, 2022	Completion:	54 Months		
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Potential Obstacles:	<ul style="list-style-type: none"> • Pushback from the FAA on amending the HFH to achieve the normal periodic timeline updates. • FAA approval process delays for revising the HFH. • Disagreement within industry on HFH revisions (<i>e.g.</i>, terminology). • Challenges reaching the end users through outreach, training, and feedback. 																				
Detailed Implementation Plan Notes:	<p>Significant dates to consider would be HAI’s HELI-EXPO and any other industry conventions for outreach.</p>																				
CICTT Code:	<p>LOC-I, LALT</p>																				
Output 1:																					

Description:	FAA to work with industry on researching and evaluating helicopter progressive training techniques as detailed in AC 61-140A for autorotations and operational data.
Lead Organization:	FAA AFS-630
Supporting Organizations:	<ul style="list-style-type: none"> • AFS-250 / AFS-800 • USHST SEA Training Team • HAI SC
Actions:	<ol style="list-style-type: none"> 1. Research and evaluate the current advisory guidance. 2. AC 61-140A was based on USHST data and currently supplements and expands the guidance from the HFH. Assess AC 61-140A to determine what additional research, if any, is necessary to justify taking the expanded guidance on autorotations found in this AC and publishing it as principal guidance in the HFH. 3. If further research is necessary, the FAA will solicit input from the USHST SEA Training Team. 4. Determine if additional research is required on pilot performance and human factors related to the progressive approach. 5. Determine if a complete review of the HFH is necessary, to include reclassification of training autorotations by removing the topic from the emergency section.
Output Notes:	
Time Line:	12 months
Target Completion Date:	June 1, 2019
Output 2:	
Description:	FAA to incorporate progressive training findings into the Helicopter Flying Handbook (FAA-H-8083-21A). FAA should work with industry on any other areas that should be addressed in the HFH during this revision.
Lead Organization:	FAA AFS-630
Supporting Organizations:	<ul style="list-style-type: none"> • AFS-250 / AFS-800 • USHST SEA Training Team • HAI SC
Actions:	Amend and republish a revised version of the HFH that includes the progressive approach to training autorotations.
Output Notes:	
Time Line:	30 months (6 months for <u>approval</u> of the advisory circular amendment <i>project</i> and 24 months to amend and republish from time advisory circular amendment project is approved).

Target Completion Date	December 1, 2021
Output 3	
Description:	FAA, HAI, and USHST to conduct outreach on the latest revisions of HFH for helicopter operators.
Lead Organization:	FAAST
Supporting Organizations:	<ul style="list-style-type: none"> • USHST Outreach Team • HAI TC • HAI SC • AFS 630
Actions:	<ol style="list-style-type: none"> 1. FAA to use FAAST and other outreach to brief changes to HFH at flight schools. 2. FAA to require DPE's to place special emphasis on progressive approach and AC 61-140A during CFI practical tests. 3. USHST Outreach Team and industry to formulate outreach plan and highlight HFH changes at every opportunity (<i>e.g.</i>, Heli-Expo, AMTC, Heli Offshore, regional FAAST conferences, other safety conferences). 4. Document progress of outreach effort (who contacted, number of attendees, etc.).
Output Notes:	
Time Line:	12 months
Target Completion Date:	December 1, 2022