

2.c.2.	Static Stability	Longitudinal Control Position: $\pm 10\%$ of change from trim or ± 0.25 in. (6.3 mm) or Longitudinal Control Force: ± 0.5 lb. (0.223 daN) or $\pm 10\%$.	Cruise or Climb. Autorotation. Augmentation On and Off.	Record results for a minimum of two speeds on each side of the trim speed. May be a series of snapshot tests.	X	X	X	
2.c.3.	Dynamic Stability.							
2.c.3.a.	Long Term Response ...	$\pm 10\%$ of calculated period. $\pm 10\%$ of time to $\frac{1}{2}$ or double amplitude, or ± 0.02 of damping ratio. For non-periodic responses, the time history must be matched within $\pm 3^\circ$ pitch; and ± 5 kts airspeed over a 20 sec period following release of the controls.	Cruise Augmentation On and Off.	Record results for three full cycles (6 overshoots after input completed) or that sufficient to determine time to $\frac{1}{2}$ or double amplitude, whichever is less. For non-periodic responses, the test may be terminated prior to 20 sec if the test pilot determines that the results are becoming uncontrollably divergent. Displace the cyclic for one second or less to excite the test. The result will be either convergent or divergent and must be recorded. If this method fails to excite the test, displace the cyclic to the predetermined maximum desired pitch attitude and return to the original position. If this method is used, record the results.	X	X	X	The response for certain helicopters may be unrepeatable throughout the stated time. In these cases, the test should show at least that a divergence is identifiable. For example: Displacing the cyclic for a given time normally excites this test or until a given pitch attitude is achieved and then return the cyclic to the original position. For non-periodic responses, results should show the same convergent or divergent character as the flight test data.
2.c.3.b.	Short Term Response ...	$\pm 1.5^\circ$ Pitch or $\pm 2^\circ/\text{sec}$. Pitch Rate. ± 0.1 g Normal Acceleration.	Cruise or Climb. Augmentation On and Off.	Record results for at least two airspeeds.		X	X	A control doublet inserted at the natural frequency of the aircraft normally excites this test. However, while input doublets are preferred over pulse inputs for Augmentation-Off tests, for Augmentation-On cases, when the short term response exhibits 1st-order or dead-beat characteristics, longitudinal pulse inputs may produce a more coherent response.