

PART 135—OPERATING REQUIREMENTS: COMMUTER AND ON DEMAND OPERATIONS AND RULES GOVERNING PERSONS ON BOARD SUCH AIRCRAFT

■ 10.–11. The authority citation for part 135 continues to read as follows:

Authority: 49 U.S.C. 106(g), 41706, 44113, 44101, 44701–44702, 44705, 44709, 44711–44713, 44715–44717, 44722.

■ 12. Section 135.152(k) is revised to read as follows:

§ 135.152 Flight recorders.

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(k) For aircraft manufactured before August 18, 1997, the following aircraft types need not comply with this section: Bell 212, Bell 214ST, Bell 412, Bell 412SP, Boeing Chinook (BV–234), Boeing/Kawasaki Vertol 107 (BV/KV–107–II), deHavilland DHC–6, Eurocopter Puma 330J, Sikorsky 58, Sikorsky 61N, Sikorsky 76A.

■ 13. Appendix F to part 135 is amended to revise item numbers 1, 5, 7, 9, 12a,

12b, 13b, 14a, 15, 16, 17, 19, 20, 21, 23, 24, 26, 37, 42, 57, 87 and 88 and adding footnotes 1 through 17 to read as follows:

Appendix F to Part 135—Airplane Flight Recorder Specifications

The recorded values must meet the designated range, resolution, and accuracy requirements during dynamic and static conditions. All data recorded must be correlated in time to within one second.

Parameters	Range	Accuracy (sensor input)	Seconds per sampling interval	Resolution	Remarks
1. Time or Relative Time Counts ¹ .	24 Hrs, 0 to 4095	±0.125% Per Hour	4	1 sec	UTC time preferred when available. Counter increments each 4 seconds of system operation.
5. Normal Acceleration (Vertical) ⁹ .	–3g to +6g	±1% of max range excluding datum error of ±5%.	0.125	0.004g	
7. Roll Attitude ²	±180°	±2°	1 or 0.5 0.5 airplanes operated under § 135.152(j).	0.5°	A sampling rate of 0.5 is recommended.
9. Thrust/Power on each engine—primary flight crew reference.	Full Range Forward	±2%	1 (per engine)	0.3% of full range.	*COM041* Sufficient parameters (e.g. EPR, N1 or Torque, NP) as appropriate to the particular engine being recorded to determine power in forward and reverse thrust, including potential overspeed condition.
12a. Pitch Control(s) position (non-fly-by-wire systems).	Full Range	±2° Unless Higher Accuracy Uniquely Required.	0.5 or 0.25 for airplanes operated under § 135.152(j).	0.5% of full range.	For airplanes that have a flight control break away capability that allows either pilot to operate the controls independently, record both control inputs. The control inputs may be sampled alternately once per second to produce the sampling interval of 0.5 or 0.25, as applicable.
12b. Pitch Control(s) position (fly-by-wire systems) ³ .	Full Range	±2° Unless Higher Accuracy Uniquely Required.	0.5 or 0.25 for airplanes operated under § 135.152(j).	0.2% of full range	
13b. Lateral Control position(s) (fly-by-wire) ⁴ .	Full Range	±2° Unless Higher Accuracy Uniquely Required.	0.5 or 0.25 for airplanes operated under § 135.152(j).		
14a. Yaw Control position(s) (non-fly-by-wire) ⁵ .	Full Range	±2° Unless Higher Accuracy Uniquely Required.	0.5 or 0.25 for airplanes operated under § 135.152(j).	0.3% of full range	For airplanes that have a flight control break away capability that allows either pilot to operate the controls independently, record both control inputs. The control inputs may be sampled alternately once per second to produce the sampling interval of 0.5.
15. Pitch Control Surface(s) Position ⁶ .	Full Range	±2° Unless Higher Accuracy Uniquely Required.	0.5 or 0.25 for airplanes operated under § 135.152(j).	0.2% of full range.	For airplanes fitted with multiple or split surfaces, a suitable combination of inputs is acceptable in lieu of recording each surface separately. The control surfaces may be sampled alternately to produce the sampling interval of 0.5 or 0.25.
16. Lateral Control Surface(s) Position ⁷ .	Full Range	±2° Unless Higher Accuracy Uniquely Required.	0.5 or 0.25 for airplanes operated under § 135.152(j).	0.2% of full range.	A suitable combination of surface position sensors is acceptable in lieu of recording each surface separately. The control surfaces may be sampled alternately to produce the sampling interval of 0.5 or 0.25.