Federal Aviation Administration

Memorandum

Date: JUN 10 2014

To: Glenn Rizner, Manager, Operations and Integration Division, AST-500

From: Mark W. Bury, Assistant Chief Counsel for International Law, Legislation, and Regulations, AGC-200

Prepared by: Alex Zektser, Attorney, AGC-250

Subject: Interpretation as to whether the informed-consent signed writing required to comply with 14 C.F.R. § 460.45(f) may be electronic

This is in response to your May 2, 2014 memorandum asking whether a digital signature or a pdf copy of a paper signature would satisfy the requirement of 14 C.F.R. § 460.45(f) that a space flight participant provide consent in writing to participate in a launch or reentry. For the reasons discussed below, we conclude that a writing in either paper or electronic format would satisfy § 460.45(f).

Part 460 of 14 C.F.R. contains requirements that apply to human space flight that is undertaken as part of commercial space transportation. Section 460.45 requires an operator to notify a space flight participant of the hazards and risks of a launch or reentry that the space flight participant wishes to participate in. After the operator provides this information to the space flight participant, § 460.45(f) requires that the space flight participant "must then provide consent in writing to participate in a launch or reentry." This consent must "[b]e signed and dated by the space flight participant."[1]

The Merriam-Webster dictionary defines "writing" as "letters or characters that serve as visible signs of ideas, words, or symbols." Based on this dictionary definition, a writing could be in either a paper or electronic format because letters that serve as signs of ideas, words, or symbols could be expressed in either format.

The regulatory text of § 460.45(f) does not state whether the signed writing it requires must be expressed in a paper or electronic format. Similarly, the preamble for the rule that created § 460.45(f) also does not specify whether the signed writing must be in paper

[1] 14 C.F.R. § 460.45(f)(3).

or electronic format.[2] Accordingly, we conclude that the signed writing required by § 460.45(f) may be made in either of these formats.

We note that in a 2011 interpretation issued to Kenneth Wong we interpreted the "in writing" requirement of 14 C.F.R. § 413.7(a) as meaning that the writing must be on paper rather than in an electronic format.[3] However, this interpretation was based largely on the fact that § 413.7(a) requires that the writing must be "filed in duplicate" with the FAA. Since an electronic writing cannot be filed in duplicate, the *Wong* interpretation concluded that the regulatory text of § 413.7(a) referred only to a writing that is on paper.

Unlike § 413.7(a), which was at issue in the *Wong* interpretation, § 460.45(f) does not require that the writing be filed in duplicate. Accordingly, the reasoning of that interpretation does not apply to § 460.45(f).

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[2] *See Human Space Flight Requirements for Crew and Space Flight Participants*, 71 FR 75616 (Dec. 15, 2006).

[3] Memorandum to Kenneth Wong from Rebecca MacPherson, Assistant Chief Counsel for Regulations, AGC-200 (Nov. 30, 2011).