

National Aeronautics and  
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**Langley Research Center**  
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Hampton, VA 23681-2199



January 24, 2005

Reply to Attn of: 434

TO: 238/Head, Aeronautics Systems Engineering Branch, SED  
FROM: 434/Chairperson, Airworthiness and Safety Review Board  
SUBJECT: Waiver of Risk and Flight Safety Release (FSR) for GTM T-1 Flight Activities

The LaRC Airworthiness and Safety Review Board (ASRB) conducted a Generic Transport Model (GTM) project Operational Safety Review (OSR) on July 14, 2004, addressing proposed flight operations of the GTM T-1 trainer model to be performed at Wallops Island and K31VA Aberdeen Field; Smithfield, Virginia. After thorough review, the ASRB concluded a Flight Safety Release (FSR) for these activities should be issued upon completion of an action item relating to the proposed fail-safe approach. Subsequently, in processing the action item it was determined the Project's risk assessment had identified several items whose risk levels were scored at a Risk Assessment Code (RAC) of 2, exceeding that which could be approved by the ASRB.

The Flight Test Operations and Safety Report (FTOSR), including the hazard analysis, has been approved and the action item has been satisfied. However, in accordance with LMS-CP-5580, Airworthiness and Safety Review Board (ASRB), the LaRC ASRB concurred with the RAC-2 rating for several aspects of the proposed GTM T-1 Project activities thus prompting consideration of a waiver request approval by the Center's Executive Safety Council (ESC) prior to issuance of a Flight Safety Release (FSR). The sponsoring Program Office has indicated it is willing to accept the risk of potential equipment loss for these UAV model tests; therefore, consideration of a waiver to conduct flight operations at Wallops Island and K31VA Aberdeen Field; Smithfield, Virginia, is determined to be a reasonable course of action.

To address this situation, a special meeting was held on January 10, 2005, with (b) (6) LaRC Director and Chair, ESC, to apprise him of the situation and to seek direction (b) (6) were present. (b) (6) directed that a sub-panel of the LaRC ESC, chaired by himself and consisting of (b) (6) (b) (6) be convened to review the Project's plans and risk assessment.

The sub-panel of the ESC met with representatives of the Project on January 19, 2005, with (b) (6) (b) (6), respectively. Following presentations by the ASRB and Project, and sub-panel discussions, the sub-panel:

(1) Approved Wallops Island and K31VA Aberdeen Field; Smithfield, Virginia, as locations for the conduct of GTM T-1 operations.

(2) Accepted the Project's proposal that upon loss of control link the model's control surfaces are to be repositioned to a default condition thereby placing it in a descending spiral pattern, for the purpose of providing an appropriate amount of time to recognize and recover from a loss of control signal, with the proviso that under the expected environmental conditions such settings be based on maintaining the model within the established hazard area of the approved test range (i.e., Wallops Island or K31VA Aberdeen Field; Smithfield, Virginia).

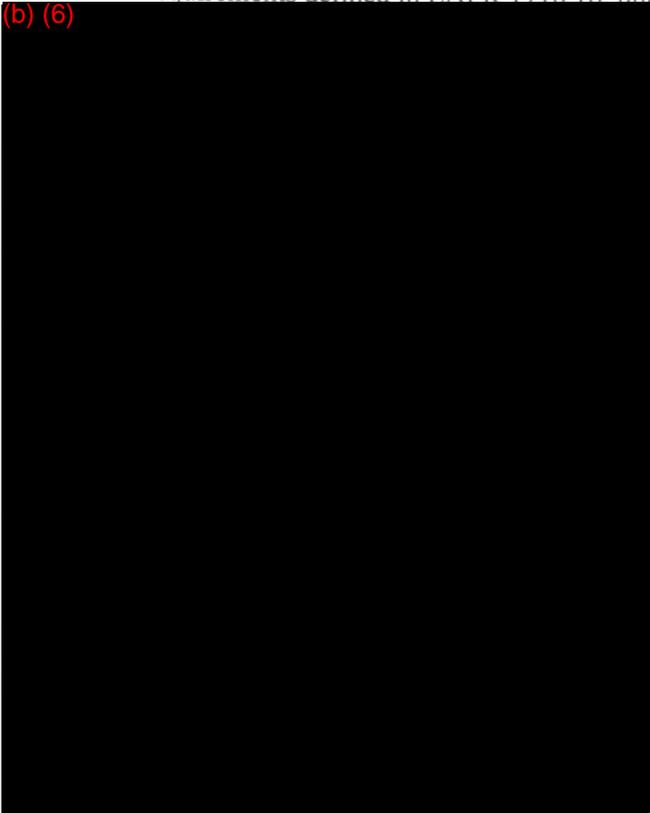
(3) Agreed that upon loss of control link, the T-1 model engine controller shall be configured to reduce engine thrust to idle rather than the AMA recommendation of shutting them down.

(4) Directed the Project to ensure only the minimum number of required participants are close to the flying activities and that all participants are to be protected by a portable barrier(s).

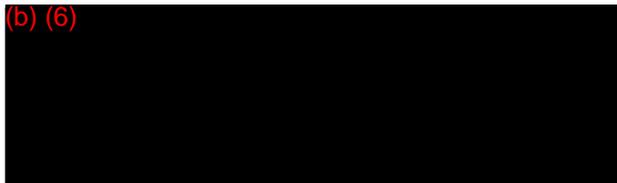
The Project agreed to provide the approved Failure Response Plan to the ASRB prior to first flight of the T-1 model.

In accordance with LMS-CP-5580, Airworthiness and Safety Review Board (ASRB), and with concurrence of the Chairman of the Executive Safety Committee, a Flight Safety Release is hereby granted for the GTM Project to conduct flight test activities of the T-1 model at Wallops Island and K31VA Aberdeen Field; Smithfield, Virginia, under a waiver of risk assessment requirements defined in I APR 1710.16 until January 31, 2006.

(b) (6)



Concur: (b) (6)



Date: 1-26-2005