Technical Note:
TN – 0016

ENGINEERING ACCEPTANCE - TECHNICAL NOTE

Subject: **Pantograph Sway**

Advice to: CCBs and VABs

Reference: Standard: GM/RT2149 Issue: 2 & 3 Clause: B10.1

Applies when: Assessing the acceptability of pantograph sway.

Note's Purpose: To clarify when pantograph sway issues are the subject for Engineering Acceptance and when for Route Acceptance.

Background: The emphasis of GM/RT2149 was changed with issue 2, and continued on into issue 3, to require validation of the derivation of the swept envelope rather than determining whether it was acceptable or not. The requirements for pantograph sway, however, are specifically defined in GM/RT2149.

Requirements: The responsibility of the design CCB and EA signatory is to:

1. verify the methodology and correctness of the derivation of the pantograph sway;
2. verify that the pantograph sway remains within the limits defined in GM/RT2149 under all the conditions defined in GM/RT2149;
3. identify those operational conditions, referred to in 2 above, beyond which the pantograph sway exceeds the permitted envelope;
4. define under the Special Limitations on the Design and Engineering Acceptance Certificates those limiting operational conditions necessary to prevent the pantograph sway straying outside the sway limits defined (for example, limiting the maximum cant deficiency);

The acceptability of the pantograph sway will then be determined with reference to the intended operational routes under the Route Acceptance process. It is crucial, however, that the limiting conditions are defined on the Certificate of Engineering Acceptance from which such conditions will be identified in the case of any future applications for route acceptance in relation to other routes not covered under the original application.

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