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Original

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Information and instructions for the maintenance of the telecommunication lines used by the railways for the interconnection of data transmission networks

*Informations et instructions pour la maintenance des lignes de télécommunication utilisées par les
chemins de fer pour l'interconnexion des réseaux de transmission de données
Informationen und Vorschriften für die Wartung der von den Bahnen für die Zusammenschaltung von
Datenübertragungsnetzen verwendeten Telekommunikationsleitungen*



UNION INTERNATIONALE DES CHEMINS DE FER
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Summary

This leaflet defines procedures for the communication between staff who are responsible for keeping the international data exchange for railway purposes operational. It is recommended that a Network Telecommunication Centre that is continuously operational should be set up in order to simplify communication.

Formal procedures, which aim to repair faults as soon as possible, are based on the exchange of the standardized forms defined in the Leaflet. Every message shall be acknowledged by the recipient. In order to avoid language barriers, the number codes have been defined for different transmission equipment and situations. Special care has been given to the definition of physical line numbering (not to be confused with the data network addressing scheme defined in *UIC Leaflet 917-1*) and reference numbers of events.

◦ 1 - General

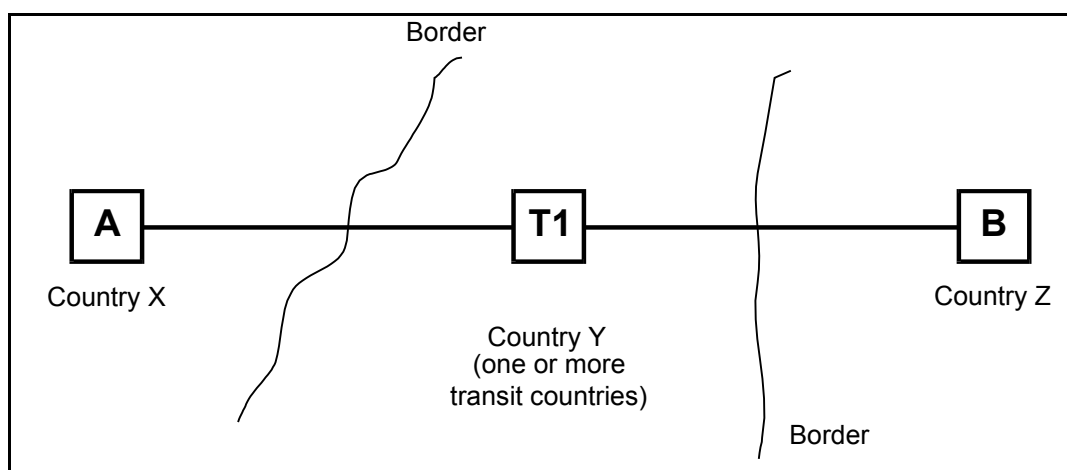
Scope of the document

To simplify and standardise the communication necessary for fault repair, planned re-installation or extension, etc. of telecommunication equipment and telecommunication lines connecting the different countries (called "international lines" below) and to compensate for language barriers as far as possible and thus, prevent misunderstandings, it is intended to introduce a well designed form to be used for maintenance based information exchange between the different international line maintenance/coordination locations. The procedures for such information exchange must be also defined.

2 - Basic definitions

o 2.1 - Point of line

2.1.1 - The ends of an international line are called the A-side and the B-side respectively. The A-side of the international line is the coordinating site. For international lines passing through one or more other countries, one or more so called transit locations exist, too. These transit locations are called T1 to Tx.



2.1.2 - Points of line must be defined bilaterally.

2.2 - Coordinating site

- o **2.2.1** - The point of line which first stated the incident, becomes the coordinating site.
- o **2.2.2** - The coordinating site is responsible for the time management of activities on the international line where the incident arose.
- o **2.2.3** - The coordinating site must inform all other points on the line belonging to the international line:
 - about planned (e.g. preventive) maintenance activities on an international line,
 - about planned extension or other workforce activities on an international line,
 including - if possible - forecasts about the duration of the necessary activities.
- R **2.2.4** - It is strongly recommended that the coordinating site provides a continuous service (24 hours per day and 7 days per week).

2.3 - National telecommunication centre

R 2.3.1 - All international lines in the country do not need to end physically in the same location. In such cases, it is strongly recommended that a National Telecommunication Centre (NTC) is set up which will be responsible for all points of lines in the country. The NTC must provide a continuous service (24 hours per day and 7 days per week).

O 2.3.2 - The term "point of line" used in this Leaflet represents the NTC too.

2.4 - Incidents

2.4.1 - In the following text, the term "incident" describes the full communication procedure necessary for fault repair or planned other activities on an international line.

2.4.2 - Basically, each and every "incident" starts with the recognition, that something has happened (e.g. a fault) or something is planned to be done. In the next step, the work itself will be done. In this step, it may happen that support is needed from the maintenance team on the other side of the line. Finally, when the work is finished and tests are completed, the line can be put back into service.

2.4.3 - In such cases where more than just A-side and B-side are involved, more than one "incident" exists. E.g. "incident" 1 exists between A- and B-side, "incident" 2 exists between A-side and T1-side, etc.

◦ 3 - Exchange and identification of messages

3.1 - Way of communication

3.1.1 - The communication between two Points of Line can be subdivided into 3 segments:

- first message,
- follow-up message(s),
- final message.

3.1.2 - To prevent misrouting or misunderstanding, for each of these messages an acknowledgement is expected from the recipient. Thus, for each "incident" at least one "first message" and it's acknowledgement and one "final message" and it's acknowledgement must exist. "Follow-up" messages and their acknowledgements are only necessary in those cases, where e.g. additional support is needed from the other side or additional information is to be communicated.

3.1.3 - Only one common message form has to be used for all the above described messages and their acknowledgements. As the number of necessary "follow-up" messages cannot be defined in advance, "follow-up" messages will be counted sequentially regardless of the originator of the message.