AUSTRALIAN RAIL TRACK CORPORATION LTD

Collection of Communications System Condition Data

Issue 1
Revision 2

Engineering Process Procedure

(PP-145)

DOCUMENT CONTROL

1 Document Status Record

Status	Date	Prepared	Reviewed	Endorsed	Approved
Issue1 Revision2	12 Jan 04	Asset Managers A1 & V1	Asset Manager Communications	GM E&I	Executive Committee

2 Document Distribution List

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PROCESS PROCEDURE PP-145

COLLECTION OF COMMUNICATIONS SYSTEM CONDITION DATA –

1. Purpose

To purpose of this procedure is to ensure that ARTC has access to data describing the physical integrity of the communications system assets.

2. Scope

The scope of is procedure is limited to a description of the collection of communications system condition data only.

3. Reference Documents

Contract A3 – Signals & Communications, 5 May 1999

4. Responsibility

The Asset Manager Communications is responsible for the implementation of this procedure

5. Condition Assessment System

Maintenance Contractors monitor the condition of the Communications system assets, under the terms of the Reference Documents, using the Condition Assessment System (CAS).

Condition data is input to the IMS for the Asset Types described in PP-115.

The CAS database interfaces at functional and data levels to the ARTC Infrastructure Management System (IMS*).* Developed under the terms of the B2 contract, the CAS was originally populated under by the B2 contractor over a twelve-month period, using data obtained from inspection and audit tasks.

The CAS has been deployed to all Alliance Partners and major contractors that may make observations of the condition of communications systems.

The CAS allows ARTC to manage condition data using the same Asset Type codes as the IMS. Communications systems are identified within the hierarchy established for the IMS:

- Asset Category
- Asset Type (System)
- Asset Sub-Type (Sub-System)

- Equipment and/or Component
-

All communications equipment in the Defined Interstate Network (DIN) is given a condition rating based on the observed physical condition when compared with a baseline condition description and photographs.

A Weighting Factor is applied to equipment within Asset Sub-Type categories to score the condition from 1 (poor) to 100 (good). The Weighting Factor is based on the functional (as designed) performance and safety criticality of the Asset Sub-Type.

The final weighted score of physical condition is used to predict the probable remaining service life of the asset.

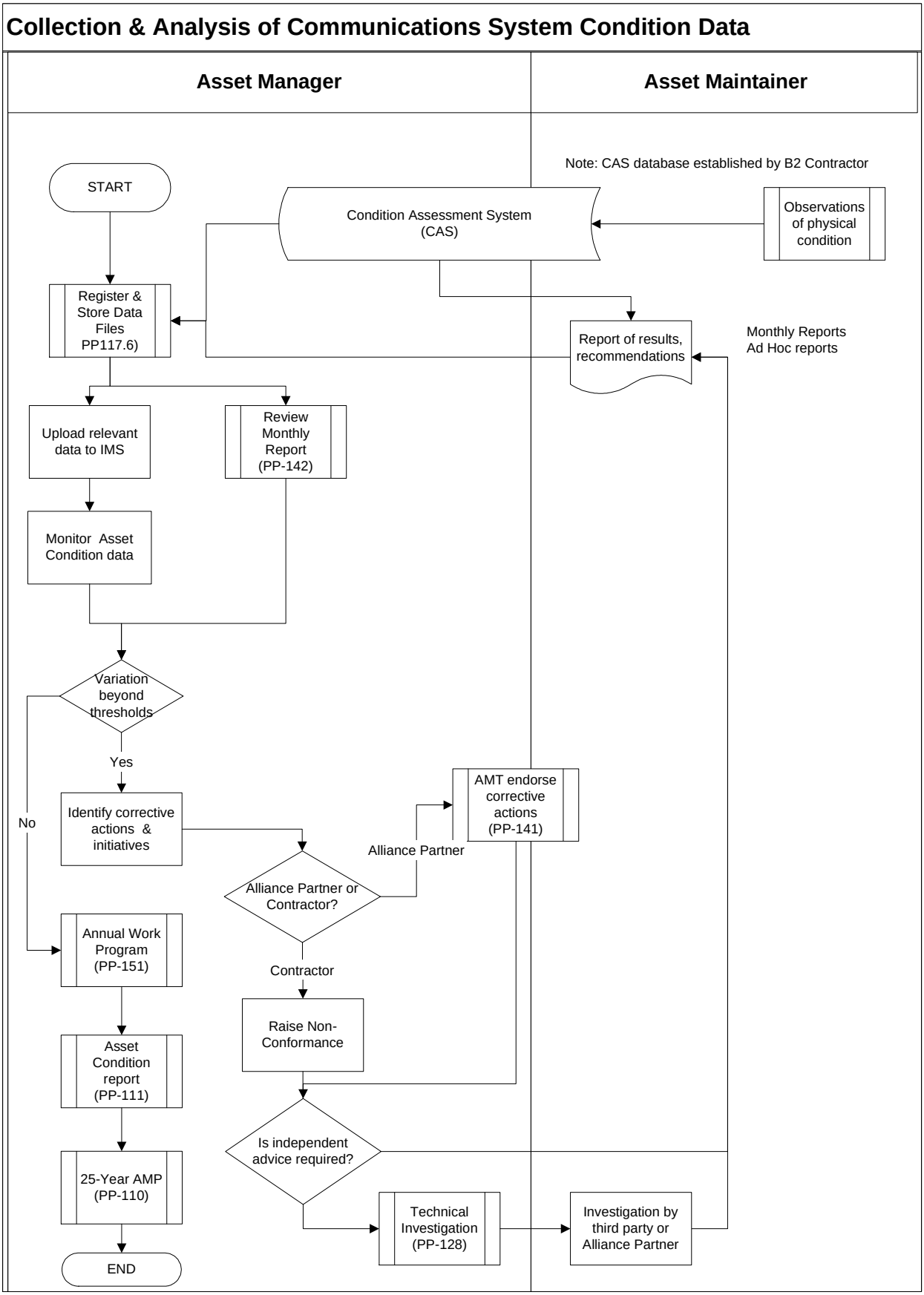
6. Procedure

The process for collection and analysis of the communications system condition data is illustrated in the attached flow chart. The key steps in the process are:

1. Asset maintainers conduct infrastructure maintenance, audit and survey activities in accordance with a defined contract scope.
2. Asset Maintainers record equipment condition in accordance with the CAS criteria.
3. Asset Maintainers prepare and submit asset condition reports.
4. Asset Maintainers input the weighted condition score and a description of physical condition to the IMS.
5. Asset Managers receive and register the asset condition reports and data deliverables.
6. Asset Managers review the asset condition reports and IMS records, paying particular attention to adverse trends and exceptional observations.
7. Alliance Management Teams (AMT) interpret and discuss the asset condition reports at AMT meetings.
8. The AMT identifies corrective actions and allocates resources as necessary.
9. Asset Managers review and validate IMS asset condition records.
10. Asset Managers use the asset condition data to develop the Asset Condition Report and related documents.

7. Flow Chart

Refer overleaf.


Collection & Analysis of Communications System Condition Data
Asset Manager
Asset Maintainer
Note: CAS database established by B2 Contractor
START
Condition Assessment System (CAS)
Observations of physical condition
Register & Store Data Files PP117.6)
Report of results, recommendations
Monthly Reports
Ad Hoc reports
Upload relevant data to IMS
Review Monthly Report (PP-142)
Monitor Asset Condition data
Variation beyond thresholds
Yes
No
Identify corrective actions & initiatives
AMT endorse corrective actions (PP-141)
Alliance Partner
Alliance Partner or Contractor?
Contractor
Annual Work Program (PP-151)
Raise Non-Conformance
Asset Condition report (PP-111)
Is independent advice required?
25-Year AMP (PP-110)
Technical Investigation (PP-128)
Investigation by third party or Alliance Partner
END