

## NEW EQUIPMENT AND SYSTEM APPROVAL CERTIFICATE

**Certificate No. 01-1710-188E**

**Approval date** 10/11/2017  
**Approved by** GM Technical Standards  
**Report no.** TAR 01-1710-AN188E  
**Report date** 26/10/2017

*This certificate is issued to*

**Supplier** Ansaldo STS  
11 Viola Place, Eagle Farm  
QLD, Australia, 4009  
Tel: +61 7 3868 5421

*In respect of*

**Manufacturer** Ansaldo STS Australia Pty Ltd  
**Product description** Phoenix Train Order System (PTOS)  
**Item identification** Broadmeadow TOS Version 3.1.9  
**Application** ARTC Network – New South Wales Network Rules  
**Relevant Standards** ANSY 520 Phoenix Train Order System  
ESD-08-01 Train Order Working  
EN50128 Railway Applications – Communication, signalling and processing systems – Software for railway control and protection systems

**Conditions of  
Approval**

1. Only versions of Software for PTOS V 3\_1\_9 detailed in Attachment 1 may be used in service. Any changes to software versions to be reviewed and approved prior to use.
2. All network infrastructures shall be designed and installed in accordance with ESD-08-01 Train Order Working.
3. Operation of the systems shall be in accordance with network rule ANSY 520.
4. That changes to the network geographic configuration be implemented in PTOS system data and tested and verified prior to its operational use at a specific location.
5. That the Manager Operations Services Hunter Valley will continue the establishment of a documented process for mentoring / training of new controllers in the operation of PTOS V 3.1.9.
6. That infrastructure maintenance staff are trained in ANSY 520 and competent before they undertake the movement of maintenance rail vehicles through a section of track under PTOS control. This only applies if the movement is as a train. Otherwise movements under a TOA do not require the PTOS qualification.
7. That only network maintenance staff who have completed training in PTOS system and have been assessed as competent, undertake

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- maintenance tasks on the PTOS system.
- That Train Operators complete training of all train drivers and associated staff in the operation of ANSY 520 before PTOS becomes operational for a specific section of the rail network.

*All application design of the use of this system is undertaken in accordance with ARTC Standards and Procedures by competent persons.*

*ARTC reserves the right to conduct its own audit of the manufacture and supply of these components to AS 19011.*

*Any subsequent change to the system design, or changes to network rules affecting PTOS is not covered by this approval. The manufacturer should notify ARTC of any modification or changes in order to obtain a valid updated certificate.*

**Note/Comments**                      NIL.

**Issue date**                              10 November 2017              **Expiry date**      Not applicable

**Issued by**                                            **John Furness**  
ARTC Manager Standards

### ***Type Approval Status***

- Issue 1 – TAC-01-1110-AN125 Ansaldo STS – Phoenix Train Order System - current
- Issue 2 – TAC-01-1510-AN188 Ansaldo STS – Phoenix Train Order System - superseded
- Issue 3 - TAC 01-1510-AN188A Ansaldo STS – Phoenix Train Order System – superseded
- Issue 4 - TAC 01-1510-AN188B Ansaldo STS – Phoenix Train Order System – superseded
- Issue 5 - TAC 01-1510-AN188C Ansaldo STS – Phoenix Train Order System – superseded
- Issue 6 - TAC 01-1510-AN188D Ansaldo STS – Phoenix Train Order System – superseded
- Issue 7 - TAC 01-1710-AN188E Ansaldo STS – Phoenix Train Order System – current for Broadmeadow

### Approved Item List

Phoenix Train Order System – Broadmeadow Software Configuration

| No. | Name   | Specification            |
|-----|--|--------------------------|
| 1   | System Release                                       | NSW_SYS_TOS_3_1_9        |
| 2   | TCS Subsystem Release                                | NSW_BIN_TCS_1_4_9        |
| 3   | TOM Subsystem Release                                | NSW_BIN_TOM_1_4_6        |
| 4   | FD Subsystem Release                                 | NSW_BIN_FD_1_4_1         |
| 5   | XSD  | NSW_XSD_TOM_1_4_5        |
| 6   | TOM Database Release                                 | NSW_DB_TOM_1_4_6         |
| 7   | TCS Application Data<br>Broadmeadow Application Data | NSW_APP_BMD_0_1_7        |
| 8   | FD Data Release                                      | NSW_DAT_FD_1_4_0         |
| 9   | MS.NET Framework                                     | 3.5                      |
| 10  | MS SQL Server  | 2005 SP2 64 bit standard |
| 11  | IIS  | 7.0                      |
| 12  | Borland Silk Central Test Manager                    | 2008 Version 8.8         |
| 13  | Borland StarTeam Client                              | 2008 Version 10.0        |

This supersedes System Release NSW\_SYS\_TOS\_3\_1\_8