

SCHEDULE F

(Network Management Principles)

This schedule applies in circumstances where Train Paths are interrupted due to matters outside ARTC's control and there is a need to resolve competing interests of users of the Network. Refer to the following three (3) pages.

NETWORK MANAGEMENT PRINCIPLES

Train Decision Factors

The following definitions apply in this Schedule F except where expressly limited.

"Commuter Peak Services" means RailCorp's commuter rail passenger services arriving at Sydney Central Station or Newcastle Station between 0600 and 0900 hours and departing Sydney Central Station or Newcastle Station between 1600 and 1800 hours and continuing until they reach their destination point.

"Express Freight Services" means those freight services capable of maintaining sectional running times that are, or are determined by the appropriate Train Controller, to operate at faster sectional times than local Frequent-Stopping Services.

"Frequent-Stopping Services" means those rail passenger services that stop at most or all stations along their Train Path.

"Healthy Train" means a Train that, having regard to the daily train plan applicable on the day:

- (a) presents to the Network on time, is configured to operate to its schedule and operates in a way that it remains able to maintain its schedule; or
- (b) is running late only due to causes within the Network, but only where the root cause is outside the Operator's control; or
- (c) is running on time, regardless of previous delays.

"Limited-Stop Services" means those rail passenger services that stop at a few selected stations along their Train Path.

"Long-distance Passenger Services" means those rail passenger services operating to or from points outside the Sydney metropolitan rail area, excluding RailCorp's CityRail services.

"Non-Revenue Positioning Movements" means movements of Trains required for reasons other than revenue services.

"Special Event" means a major community, cultural, sporting or similar event within the metropolitan rail area, which is identified as such by a relevant NSW agency, and which may require:

- (a) a special timetable for the operation of RailCorp rail passenger services before, during and after the event; and
- (b) significant operational priority for RailCorp rail passenger services; and
- (c) consequential adjustments to other rail operators' services.

"Train" means a single unit of rolling stock or 2 or more units of rolling stock including a locomotive or other self propelled unit coupled together to operate on the Track as a single unit.

"Train Control" means the control and regulation of all rail operations (including Train Movements, movements of rolling stock and track maintenance vehicles) to ensure the safe, efficient and proper operation of the Network.

"Train Movement" means a particular trip by a Train on a Train Path.

"Train Path" means the series of network segments over a particular time interval through which a Train can travel and may include stopping points and intervals and fuelling stations and other set down or changeover points.

TRAIN DECISION FACTORS:

1. **Where Trains are on-time**, they will be managed as specified in the daily train plan.
2. **Where one or more Trains are late or unhealthy**, they will be managed as specified in the matrices below subject to a rail operator’s preferences for its own services.

The 2 tables are used in conjunction with each other. Table 1 will enable a person undertaking Train Control ("Train Controller") to define the relative priority of two conflicting Trains. Table 2 will specify the type of decision available to Train Controller in delivering Train Control directions to resolve the potential conflict.

Table 1 – Train Priority Matrix


Decreasing order of priority	Type of train service in ARTC Network
From Highest	Long-distance Passenger Services
	Commuter Peak Services and rail passenger services likely to affect Commuter Peak Services or Special Event services.
	Limited -Stop Services that are not Commuter Peak Services or Special Event Services.
	Freight services likely to affect Commuter Peak Services or Special Event services.
	Express Freight Services
	Frequent-Stopping Services that are not Commuter Peak Services.
	Non-express Freight Services
To Lowest	Non-Revenue Positioning Movements

Table 2 – Decision Matrix

Trains of Equal Health	Both Healthy One on Time & One Late	Both Late
Equal Priority Trains	Rule 1 + 2	Rule 3
Unequal Priority Trains		Rule 6 + 3
Higher Priority Train is On Time + Lower Priority is Late	Rule 5 + 2	
Higher Priority Train is Late + Lower Priority Train is On Time	Rule 4 + 2	
Trains of Unequal Health		Rule 7 + 2

Rule 1:

- (a) A Healthy Train should be managed such that it will exit on time.
- (b) If a Healthy Train is running late, it should be given equal preference to other Healthy Trains and advanced wherever possible to regain lost time. Any delay

to other Healthy Trains as a result of such advancement must be kept to a minimum as defined in Rule 2.

- Rule 2:** The following delay limits apply to the full journey of a Healthy Train being held back:
- (a) the delay to the individual rail passenger service held back does not exceed 5 minutes;
 - (b) there is a plan in place to recover lost time so that the downstream effect on the service held back and on individual subsequent rail passenger services also does not exceed 5 minutes;
 - (c) the delay to a freight service held back does not exceed 15 minutes; or
 - (d) there is a plan in place to recover lost time so that the downstream effect on the healthy freight service held back and on individual subsequent healthy freight services also does not exceed 15 minutes. Any plan for the recovery of time by freight services must be capable of being achieved prior to their entry into the Sydney metropolitan rail area.
- Rule 3:** Give preference to the Train whose Train performance indicates it will lose least or no more time and even make up time and hold the gain; and consider downstream effect to minimise overall delay.
- Rule 4:** A lower priority Train gets preference. A higher priority Train can be given preference subject to the delay to the lower priority Train being kept to a minimum as defined in Rule 2.
- Rule 5:** A higher priority Train should be given preference over a lower priority Train. A lower priority Train may be given preference over higher priority Train provided the delay to that Train is kept to a minimum as defined in Rule 2.
- Rule 6:** A high priority Train has preference, subject to Rule 3.
- Rule 7:** A Healthy Train should be given preference over an unhealthy Train. An unhealthy Train may be given preference over a Healthy Train provided the delay to that Train is kept to a minimum as defined in Rule 2.