ARTC

Division / Business Unit:	Interstate & Hunter Valley
Function:	Business Wide
Document Type:	Standard

ARTC Network Communications Standard

OPE-PR-043

Applicability

ARTC Network Wide	SMS

Publication Requirement

Internal / External
Primary Source

Document Status

Version #	Date Reviewed	Prepared by	Reviewed by	Endorsed	Approved
1.0	20/09/2020	Operations Principal Coordinator	Service Delivery Managers IS&HV	GM Operations IS&HV	OSERC 13/10/2020

Amendment Record

Amendment Version #	Date Reviewed	Clause	Description of Amendment
1.0	[Enter Date]		[Enter summary of changes, particularly document numbers and names]

Table of Contents

1 Introduction

1.1 Purpose

The ARTC Network Communications Standard defines safety critical communications for rail safety workers including the structure and protocols to be used, the skills needed for competent performance and the use of the Professional, Accurate, Clear and Concise (PACC) principles.

This Standard supports ongoing good practice in the Australian rail industry as an integral part of the safe and efficient operation of the rail network.

1.2 Scope

The Standard covers safety critical communications for **all** rail safety workers of the ARTC network.

In principal support has been provided by interfacing Rail Infrastructure Managers (RIM's) to support consistent safety critical communications across the rail industry.

Industry engagement and collaboration were essential to the development of this Standard. Front line staff and managers from across the rail industry were consulted, the outcomes of which formed the specification for the Standard's format and content.

Cross-industry working groups comprised members from ARTC, Sydney Trains, John Holland Country Rail Network (CRN), Arc Infrastructure, Transport for NSW, NSW Trains, V/Line, Pacific National, SCT, Qube Logistics, GSR, SSR, Rail SWS, Taylor Rail.

1.3 Procedure Owner

The General Manager Operations Services Interstate and Hunter Valley and the General Manager Asset Management Interstate and Hunter Valley are the Standard Owners and are the initial points of contact for all queries relating to this Standard.

1.4 Responsibilities

Network Control Service Delivery Managers and Asset Corridor Managers are responsible for the implementation of this Standard.

1.5 Reference Documents

The Standard is supported by the following documents:

- NSW Network Rules and Procedures
- TA20 ARTC Code of Practice for the Victorian Main Line Operations
- Code of Practice for the Defined Interstate Rail Network Operations and Safeworking Part 1: Rules and ARTC Addendum to the Code of Practice for the Defined Interstate Rail Network
- OPE-PR-012 Network Control Centre Operations
- OPP-01-02 Network Control Centre Communications

ARTC

- OPE-WI-004 Safeworking Monitoring and Review

- Network Control Emergency Communications Guideline

1.6 Definitions

The following terms and acronyms are used within this document:

Term or acronym	Description
ARTC	Australian Rail Track Corporation Ltd.
CAN	Condition Affecting the Network
Communication	The sending and receiving and understanding of information from one place or individual to another.
Lead Communicator	The person who initiates the communication interaction
PACC Principle	Professional, Accurate, Clear and Concise – ARTC principles of safety critical communications
Phonetic Alphabet	A standard set of distinct codewords that correspond to the letters of the English alphabet so that each letter is clearly distinguished from every other letter and will be commonly understood by parties exchanging information regardless of language, accent, sound quality etc.
Safety Critical Communications	Any communication that, if not delivered or not delivered applying the PACC Principle, could result in death, serious injury or incur significant damage to property, infrastructure or the environment.
SFAIRP	So Far As Is Reasonably Practicable

2 General

2.1 Introduction

Effective communication is important while undertaking rail safety work as key information must be passed between two or more people, or when a task and its associated responsibilities are handed over to another person or team.

Critical times when effective communication must be assured include (but not limited to):
- Shift handover
- Issuing or receiving a proceed authority
- Issuing or receiving an instruction not to proceed
- Issuing or receiving a work on track authority or method
- Issuing or receiving train running information
- Issuing or receiving rail safety related instructions
- Issuing or receiving a condition affecting the network (CAN).

2.2 Common communication failure points

Many factors can lead to poor communication resulting in missing or inaccurate information and misunderstandings. With safety critical communications, the consequences can be significant. Common barriers to safe, effective communication include (but not limited to):
- Distractions – physical and psychological
- Unfocused listening
- Pre-conceived expectations of what will be communicated
- Poorly expressed information
- Inconsequential / unrelated conversation
- Non- standard acronyms or jargon
- Language / Culture
- Personal bias and/or prejudice
- Ambiguous words
- Voice volume and inflection
- Pace of speaking
- Competing priorities
- Lack of visual clues
- Fatigue
- Stress
- Environment – background noise

2.3 Key Factors to Effective Communications

Key factors that enhance effective, safe communication include the following.

2.3.1 The communication environment

The standard and quality of the environment, equipment, technology and peripheral noise have significant impacts on the comprehension of information exchanged.

Distractions or interruptions should be limited to enable task focus and reduce confusion.

It is the responsibility of rail safety workers to ensure they are communicating in an ideal environment free from external influences and distractions 'So Far As Is Reasonable Practicable' (SFAIRP).

2.3.2 Information exchange

Spoken communication is effective when specific, accurate and appropriate information is exchanged between the right people at the right time and all parties confirm they have understood what was communicated.

Rail safety workers must ensure the content and flow of safety critical information is transmitted as required by the relevant network rules and procedures (where applicable).

2.3.3 Attitude and Listening

Attitude drives behaviour and can directly influence the effectiveness of any communication exchange. It is beneficial in safety critical communications to maintain a consciousness and awareness of the following qualities:

- respect
- commitment
- positive regard
- empathy
- trust
- receptivity
- honesty

Active (conscious) listening requires the listener to fully concentrate, understand, respond and remember what is being said; and overrides the likelihood of hearing what the listener 'thinks' is being said. This is extremely relevant in safety critical communications.

2.3.4 Aligning and Responding

Safety critical communications training and ongoing monitoring for workers engaged in safety critical communications is an integral component of ensuring the ARTC Network Communications Standard is upheld.

Line Managers are responsible for ensuring the Standard is followed and mandated protocols are followed.

3 Safety Critical Communications

3.1 Introduction

Safety critical communications in rail operations are essential to reduce the number of safeworking errors and to ensure the safe, efficient running of the network.

In general, there are four aspects in relation to successful safety critical communications. They are:

- Technical content;
- Compliance to rules and procedures;
- Language used; and
- Context.

Established protocols that are embedded in training, monitoring, review and reinforcement arm rail safety workers with the skills and confidence to focus on safety critical communications as standard behaviour.

3.2 The PACC Principle

ARTC developed The 'PACC' Principle to confirm a minimum standard of safety critical communications for rail safety workers.

PACC stands for:

- Professional
- Accurate
- Clear
- Concise

Communications training for rail safety workers on the ARTC network is based on this principle.

3.3 Lead Communicator

All communications should identify a Lead Communicator based on the task being carried out. If it is not clear who is the Lead Communicator, the person who initiates the conversation takes the lead. The Lead Communicator is required to:

- Apply ARTC Communications Standard and follow defined communication protocols,
- Ask questions to ensure that all the information is available at hand to make an informed decision on the correct course of action;
- Challenge any poor communication from others and prompt the other party to use correct protocols;
- Ensure all parties remain calm and composed, recognising and managing any distress, agitation or stress that might impact the effectiveness of the communication; and
- Conclude the conversation appropriately by summarising and/or ensuring the other party is clear about what is required and when.

3.4 Standard Language and Terms

Standard language and terms are recognised as best practice communications and are dependent on the task being performed. It is vitally important that only standard, approved language be used when participating in rail safety work on the ARTC Network.

The table below details standard terms that must be used to convey the associated and correct meanings.

Term	Meaning
Emergency, Emergency, Emergency	This is an emergency
Correct	Yes, you are right
I read back	I am going to read all, or a part of my last statement
I say again	I am going to repeat all or part of my last statement
I spell	I am going to use the phonetic alphabet
Loud and clear	Your signal is strong, and every word is understood
Message received	I clearly received and understood your message
Negative	No, not correct
Out	My transmission is complete
Over	I have finished speaking and I am waiting for a reply
Read back	Repeat all, or specified part, of my message back to me exactly as you received it
Receiving	I acknowledge your call, proceed with the message
Roger	All your last statement is received and understood
Say again	Please repeat your last statement
Speak Slower	Repeat what you said, speaking more slowly. It is hard to understand you
Standby	Wait. I will be back soon

3.5 Use of Phonetic Alphabet

The phonetic alphabet is used to provide clarity to communications. It can be difficult to hear what a person is saying if they are in a noisy place, if the weather is bad, or the connection is poor. The phonetic alphabet must be used:

- To identify letters of the alphabet;
- To spell words and place names that are difficult to say, or may be misunderstood;
- If there is interference on the radio or phone;

ARTC

- When quoting the identity of signals or points; and/or
- When quoting train descriptions.

Letter	Word Used	Pronounced	Letter	Word Used	Pronounced
A	Alpha	AL-fah	N	November	no-VEM-ber
B	Bravo	BRAH-voh	O	Oscar	OSS-cah
C	Charlie	CHAR-lee	P	Papa	pah-PAH
D	Delta	DELL-tah	Q	Quebec	keh-BECK
E	Echo	ECK-oh	R	Romeo	ROW-me-oh
F	Foxtrot	FOKS-trot	S	Sierra	see-AIR-rah
G	Golf	GOLF	T	Tango	TANG-go
H	Hotel	hoh-TEL	U	Uniform	YOU-nee-form
I	India	IN-dee-ah	V	Victor	VIC-tah
J	Juliet	JEW-lee-ETT	W	Whisky	WISS-key
K	Kilo	KEY-loh	X	X-ray	ECKS-ray
L	Lima	LEE-mah	Y	Yankee	YANG-key
M	Mike	MIKE	Z	Zulu	ZOO-loo

3.6   Use of Spoken Numbers

All spoken numbers must be said individually. The following describes how spoken numbers are to be communicated:

- Stress the syllables in capital letters;
- For a decimal point, say "Day See Mal".

For digit	Say	For digit	Say
0	ZEE-roh	5	FI-yiv
1	WUN	6	SIX
2	TOO	7	SEV-en
3	Thuh-REE	8	ATE
4	FO-ur	9	NINE-uh

The following table shows examples of how to transmit numbers.

Numbers	Pronounced
22	(Too) – (Too)

90	(NINE-uh) – (ZEE-roh)
153	(Wun) – (FI- yiv) – (thuh-REE)
600	(SIX) - (ZEE-roh) - (ZEE-roh)
701	(SEV-en) – (ZEE-roh) – (Wun)

Always state units of measurement when required as part of a transmission

Measurement	Pronounced
400m	(FO-ur), (ZEE-roh), (ZEE-roh) meters

3.7   Written Communications

The focus of this Standard is on verbal communication; however, various forms of written communication are integral to safety critical communications. Written communications are used in shift change-over, rail safety related records, Train Control Reports (TCR), pre-start briefings, train graphs and in any situation where a permanent record is required.

The following principles apply:

- Documentation must be completed using permanent ink (pencils may be used if authorised by procedure);
- Where possible, written records should be in electronic format or typed to reduce errors associated with handwriting. If handwriting is required, ensure it is printed clearly and use block letters where mandated;
- All required items on a form must be complete and not left blank;
- Numbers are recorded in numerals, not words, using for example "12" instead of "twelve";
- Errors are to be addressed as per the Network Rules and Procedures applicable to the area of operation;
- Where an error is made on a train control graph, the error must be neatly crossed out and the correction shown in its place.

4 Training and Competence

4.1 Introduction

All personnel engaged in safety critical communication must receive training in the protocols outlined in this Standard. Training will not only focus on the technical aspects of communication, such as the key phrases or phonetic alphabet, but also on the ability of the individual to uphold the PACC Principle in difficult and stressful situations.

4.2 Improvement and Engagement

Where relevant, ARTC will work with Above Rail Operators, interfacing RIM's, contractors and other stakeholders to ensure consistent safety critical communications across the industry.

Collaborative workshops should be encouraged internally to further enhance safety critical communications across the ARTC business.

Where practicable, training should include various methodologies to address different learning styles. Examples of suitable inclusions are:

- Opportunity for practice and feedback in a non-stressful situation that enables errors to be corrected in a low-risk environment, such as role play or simulation exercises;

- Use of actual communications equipment to allow practice in a live-run situation, such as test emergency communication calls;

- Review and examine actual incidents where poor communication is identified as the cause to illustrate the importance of adhering to the Communication Standard and being proficient in the protocols*;

- Encourage self-evaluation and establish peer review processes to assist personnel to monitor their own and others' communication performance.

* Suitable non-disclosure and non-publication arrangements must be enacted to protect individuals from illegally or inappropriately publishing material derived from this process.

>>END<<