INTERNATIONAL STANDARD

ISO 21082

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Mission operations — MAL space packet transport binding and binary encoding

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1 INTRODUCTION

1.1 PURPOSE

This Recommended Standard defines the binding between the Mission Operations (MO) Message Abstraction Layer (MAL) specified in reference [2] and the Space Packet Protocol specified in reference [1]. This binding allows MO Services to use the Space Packet Protocol as messaging technology in all situations where this may be required.

1.2 SCOPE

The scope of this Recommended Standard is the specification of the binding in terms of technology mapping to the Space Packet Protocol of:

- a) MAL message;
- b) MAL Transport Interface.

The MAL Blue Book (reference [2]) specifies the MAL protocol in an abstract way, i.e., without defining the concrete protocol data units. The MAL Space Packet Transport Binding and Binary Encoding specifies:

- a) a complete and unambiguous mapping of the MAL message to the Space Packet;
- b) a complete and unambiguous mapping of the MAL transport interface to the Space Packet Protocol interface;
- c) a complete and unambiguous mapping of the MAL data types to fixed and variable length binary encoding formats.

This Recommended Standard does not specify:

- a) individual implementations or products;
- b) the implementation of entities or interfaces within real systems.

MO services defined in terms of MAL using the Space Packet Transport Binding as defined in this Recommended Standard are fully interoperable.

1.3 APPLICABILITY

This Recommended Standard specifies a technology mapping that enables different implementations of the MO service framework (see 2.2) to interoperate through the Space Packet Protocol.