angular velocity shall be included as part of the dead reckoning parameters. One-hundred-twenty bits are reserved for other parameters as described in item f) in 5.3.2.3.2:

    1) Dead Reckoning Algorithm. This field shall specify the dead reckoning algorithm in use by the issuing entity and shall be represented by an 8-bit enumeration (see [UID 44]).

    2) Other Parameters. This field shall specify other required dead reckoning parameters and shall consist of 120 bits. See E.8 for rules associated with the use of the Other Parameters field.

    3) Entity Linear Acceleration. This field shall specify an entity's linear acceleration. This field shall be represented by a Linear Acceleration Vector record [see item b) in 6.2.96].

    4) Entity Angular Velocity. This field shall specify an entity's angular velocity and shall be represented by an Angular Velocity Vector record (see 6.2.7).

l) *Entity Marking.* This field shall identify any unique markings on an entity (for example, a bumper number or country symbol). This field shall be represented by an Entity Marking record (see 6.2.29).

m) *Capabilities.* This field shall specify the entity's capabilities. This field shall be represented by an Entity Capabilities record (see 6.2.27).

n) *Variable Parameter Records.* This field shall specify the parameter values for each Variable Parameter record that is included (see 6.2.94 and Annex I).

The format of the Entity State PDU shall be as shown in Table 134.

Table 134—Entity State PDU

Field size (bits)	Entity State PDU fields	
96	PDU Header	Protocol Version—8-bit enumeration
		Exercise ID—8-bit unsigned integer
		PDU Type—8-bit enumeration = 1
		Protocol Family—8-bit enumeration = 1
		Timestamp—32-bit unsigned integer
		Length—16-bit unsigned integer
		PDU Status—8-bit record
		Padding—8 bits unused
48	Entity ID	Site Number—16-bit unsigned integer
		Application Number—16-bit unsigned integer
		Entity Number—16-bit unsigned integer
8	Force ID	8-bit enumeration
8	Number of Variable Parameter Records (*N*)	8-bit unsigned integer

Table 134—Entity State PDU *(continued)*

Field size (bits)	Entity State PDU fields	
64	Entity Type	Entity Kind—8-bit enumeration
		Domain—8-bit enumeration
		Country—16-bit enumeration
		Category—8-bit enumeration
		Subcategory—8-bit enumeration
		Specific—8-bit enumeration
		Extra—8-bit enumeration
64	Alternate Entity Type	Entity Kind—8-bit enumeration
		Domain—8-bit enumeration
		Country—16-bit enumeration
		Category—8-bit enumeration
		Subcategory—8-bit enumeration
		Specific—8-bit enumeration
		Extra—8-bit enumeration
96	Entity Linear Velocity	x-component—32-bit floating point
		y-component—32-bit floating point
		z-component—32-bit floating point
192	Entity Location	X-component—64-bit floating point
		Y-component—64-bit floating point
		Z-component—64-bit floating point
96	Entity Orientation	Psi (ψ)—32-bit floating point
		Theta (θ)—32-bit floating point
		Phi (ϕ)—32-bit floating point
32	Entity Appearance	32-bit record
320	Dead Reckoning Parameters	Dead Reckoning Algorithm—8-bit enumeration
		Other Parameters—120 bits
		Entity Linear Acceleration—3×32-bit floating point
		Entity Angular Velocity—3×32-bit floating point
96	Entity Marking	Character Set—8-bit enumeration
		11, 8-bit unsigned integers
32	Capabilities	32-bit record
128	Variable Parameter record #1	Record Type—8-bit enumeration
		Record-Specific fields—120 bits