Recommended Vehicular Emergency Incident Data Exchange Format

1. NOTES

1. All date and time fields in this document are represented in UTC (formerly known as GMT)
2. All data exchange formats utilize ASCII characters
3. Required Label definitions; R = Always Required, O = Optional. Required fields are intended for incident originator, e.g. Telematics Service Providers, and other entities that add data to a record.
4. N=Numeric, B=Boolean, A=Alpha, AN=Alphanumeric
5. N/A in the type refers to "Not Applicable"
6. Including both the Max # Characters and the Max # Bytes columns might seem redundant. They are both included because with the exception of the Alpha data type there is not a one to one correspondence between characters and bytes. Moreover, Max # Bytes has more of a significance for developers. Max # Characters is nonetheless included because where relevant it is often more transparent to a layperson.

1. 1 Data Source (Data Source is a tag <DataSource> and the parent element for all items in section 1.1. Therefore, all items in this section are treated as children of Data Source. All information in this section contains identification information on the specific entity providing data about the incident)

NAME	LABEL	REQUIRED LABEL	MAX # BYTES	MAX # CHARACTERS	TYPE	DESCRIPTION
Type	<Type>	R		1	N	Indicates the type of data source. Value of "x" — Translation Values "yyy" 0 — Telematics Service Provider (TSP) 1 — Roadside Assistance Provider 2 — Commercial Vehicle Operator (CVO) 3 — Public Safety Answering Point (PSAP) 4 — Public Safety Agency[1]
Incident Originator	<IncidentOriginator>	R	1	5	B	Indicates if source providing data is the originator of the incident. Answer should be given as true or false.
Provider Name	<ProviderName>	R		30	AN	Name of company or agency providing data. Open Text.
Incident ID	<IncidentID>	R		10	AN	Indicates the internal case number of the incident used by the incident

[1] "Public safety agency" refers to any agency outside of a PSAP including police, fire, EMS, hospitals, Departments of Transportation, etc.

Number						originator.
Call Back Number	<CallBackNbr>	R		10	N	Incident originator 7x24 call back number of incident originator. Format: NPANXXLINE (US only, prefix of 1 optional)

1.2 Incident Data (Incident Data is a tag <IncidentData> and the parent element for all items in section 1.2. Therefore, all items in this section are treated as children of Incident Data. All information in this section contains basic incident identification information.)

NAME	LABEL	REQUIRED LABEL	MAX # BYTES	MAX # CHARACTERS	TYPE	DESCRIPTION
Event Verified	<EventVerified>	R		5	B	Indicates that there was a verbal confirmation of the event by the incident originator and a PSAP or other public safety agency. Answer should be given as true or false.
Date Stamp	<IncidentDate>	R		10	N	Year, Month, Day of the incident Format: CCYY-MM-DD
Received Time	<ReceivedTime>	R		8	N	Time Lat/Lon is received by incident originator Format: HHMMSS.S
Incident Time	<IncidentTime>	O		8	N	Time of the event which triggered the emergency call (applicable only if substantially earlier than time received by incident originator)[2] Format: HHMMSS.S
Latitude	<Latitude>	O		10	N	Latitudinal coordinate of the incident site in degrees (-90° to +90°) Format: +00.###### Indicate 0 if latitude is unknown
Longitude	<Longitude>	O		11	N	Longitudinal coordinate of the incident site in degrees (0 to 360°) Format: 000.###### Indicate 0 if longitude is unknown
Datum	<NAD>	O		2	N	Specifies the map projection and coordinate system recommended for the display of the Longitude and Latitude coordinates. Two systems are commonly used for North America. The code 83 identifies North American Datum for 1983 (NAD83). Code 84 identifies the World Geodetic System for 1984 (WGS84) other codes may be added as additional datum becomes available through authorized entities. Value of "x" Translation Values "yyy" 83 NAD83 84 WGS84
LDT	<Confidence>	O		7	N	Indicates the level of uncertainty inherent in the associated

[2] This data is intended to be provided only in situations where the actual time of the event is much earlier than when the data was received by the incident originator. For example, this would apply in the rare case that an accident occurred and there is a delay in sending the voice/data to the TSP for reasons of technical difficulty.

Confidence						latitude/longitude information expressed in meters, ranging from one meter to 1800 km, expressed in meters.
LDT Confidence Percentage	<ConfidencePercentage>	O		3	N	Indicates the confidence by which it is known that the calling party lies within the associated shape description. It is expressed as a percentage ranging from 1-100.
Location Time	<LocationTime>	O		8	N	Time of position determination by the incident originator. (applicable only if location time is not current) Format: HHMMSS.S
Location Description	<LocationDescription>	O		30	AN	Closest street address/intersection, nearby point of interest or business reference to the incident site. Open Text.
Device Event Type	<DeviceEventType>	R		1	N	Type of device that caused event notification to occur Value of "x" Translation Values "yyy" 0 ACN-Airbag 1 ACN- Seatbelt Tensioner 2 ACN-Vehicle Accelerometers 3 SOS/Emergency Button 4 Geo-fence Violation

1.3 Agency Notified By Voice (Agency Notified By Voice is a tag <AgencyNotified> and the parent element for all items in section 1.3. Therefore, all items in this section are treated as children of Agency Notified By Voice. All information in this section contains identification information on the agency notified by voice by the incident originator.[3])

NAME	LABEL	REQUIRED LABEL	MAX # BYTES	MAX # CHARACTERS	TYPE	DESCRIPTION
Agency Name	<Name>	R		30	AN	Name of agency notified by voice by incident originator. Open text.
Agency Reference Number	<ReferenceNbr>	O		20	AN	Reference number or name of individual at agency who received call from incident originator.
Agency Telephone Number	<TN>	O		10	N	7 X 24 telephone number called to contact agency. Format: NPANXXLINE
Agency Contact Address	<Address>	O		30	AN	Address of agency that took the call of the incident originator.
Agency Contact Time	<ContactTime>	O		8	N	Time the notified agency was first contacted by incident originator. Format: HHMMSS.S

[3] For example, when a TSP receives an ACN call, even if they decide to submit data to emergency responders, they first call the appropriate local agency to notify them of the incident, and in some cases connect them with the passenger in the vehicle.

1.4 Automated Incident Data (Automated Incident Data is a tag <AutomatedIncidentData> and the parent element for all items in section 1.4. Therefore all items in this section are treated as children of Automated Incident Data. All information in this section is assumed to be data that is automatically generated by the incident originator.)

1.4a Vehicle Data (Vehicle Data is a tag <VehicleData> and the parent element for all items in section 1.4a. Therefore all items in section 1.4a are treated as children of Vehicle Data. Vehicle Data is a child element of Automated Incident Data. All information in this section pertains to the vehicle involved in the incident.)

NAME	LABEL	REQUIRED LABEL	MAX # BYTES	MAX # CHARACTERS	TYPE	DESCRIPTION
Body Type	<BodyType>	O		1	N	Indicates Body Type of Vehicle Value of "x" Translation Values "yyy" 0 Passenger car *(Includes all two-axle, four-tire single unit vehicles)* 1 Bus *(All vehicles manufactured as traditional passenger-carrying buses with two axles and six tires or three or more axles)* 2 Two-Axle, Six-Tire, Single-Unit Truck *(All vehicles on a single frame including trucks, camping and recreational vehicles, motor homes, etc., with two axles and dual rear wheels)* 3 Three Or More Axle-Single Or Multi Unit Truck (*All other trucks larger than two-axle, six-tire, single-unit trucks)*
USDOT Number	<USDOT>	O		20	AN	USDOT assigned vehicle number (if commercial)
Manufacturer	<Manufacturer>	O		10	AN	Indicates vehicle manufacturer, e.g. General Motors, Ford, Mercedes
Make	<Make>	O		10	A	Indicates vehicle make, e.g. Cadillac, Ford, C Class
Model	<Model>	O		10	AN	Indicates vehicle model, e.g. Escalade, Taurus, SLK
Year	<Year>	O		4	N	Indicates vehicle model year, e.g. 2002
Weight	<Weight>	O		5	N	Indicates curbside weight of vehicle measured in kilograms.
Colors	<Color>	O		20	AN	Indicates Color(s) of Vehicle. Open text
License Plate Number	<LicensePlateNumber>	O		10	AN	Indicates license plate number of vehicle. Open Text
Owner's State/Province (U.S.A., Canada, Mexico)	<StateProvince>	O		3	A	Indicates state or province of the vehicle's registration. Open Text.

VIN	<VIN>	O		17	AN	Indicates VIN number of vehicle.
Owner's Name	<Owner>	O		30	A	Indicates name of the registered owner of the vehicle. Open Text
Hazmat	<Hazmat>	O		1	N	Indicates whether contents of vehicle are hazardous or not if known. Value of "x" Translation Values "yyy" 0 Hazardous Materials 1 Non-Hazardous Materials 2 Unknown
Vehicle Contents	<Contents>	O		20	AN	Header for vehicle contents information.
						BEGIN: CHILD ELEMENT OF VEHICLE CONTENTS
Description	<Description>	O		30	AN	Indicates contents of vehicle, e.g. propane, radioactive waste, livestock, etc. Open Text.
Contents Quantity	<Quantity>	O		9	N	Indicates the quantity of the vehicle contents. Child element of vehicle contents. Allowed Attributes: **Measure**[4] Valid Values: 0 liters (for volume) 1 kilograms (for weight) 2 each (for number)
						END: CHILD ELEMENT OF VEHICLE CONTENTS

1.4b Crash Data (Crash Data is a tag <CrashData> and the parent element for all items in section 1.4b. Therefore all items in section 1.4b are treated as children of Crash Data. Crash Data is a child element of Automated Incident Data. All information in this section pertains to crash variables associated with the vehicle involved in the incident.)

NAME	LABEL	REQUIRED LABEL	MAX # BYTES	MAX # CHARACTERS	TYPE	DESCRIPTION
Ignition State at Deployment	<IgnitionState>	O		1	A	Indicates if vehicle was running or turned off when incident was triggered. Answer should be given as on or off.
Delta Velocity	<DeltaV>	O		3	N	Indicates the force of impact based on the change in velocity over the duration of the crash pulse (measured in units of 0-999 kph)
Crash Pulse	<Pulse>	O		0	A	Header for crash pulse data. Crash pulse indicates the G forces involved in the crash in three dimensions over time using crash sensors.

[4] Indicates the unit of measurement used in indicating quantity of the vehicle contents.

						BEGIN: CHILD ELEMENT OF PULSE
Crash Pulse Duration	<Duration>	O		4	N	Indicates the duration of the crash pulse measured in seconds. Child element of crash pulse.
Crash Pulse Location	<Location>	O		N/A	AN	If available, indicates electronic address (For Example: url, ftp, etc.) where crash pulse data is available. Child element of crash pulse.
						END: CHILD ELEMENT OF PULSE
Principal Direction of Force	<PDOF>	O		2	N	Indicates Principal direction of the force of the impact to nearest O'Clock Reading (valid numbers are integers 1 through 12, where 12 O'Clock corresponds to a frontal collision, 3 O'Clock corresponds to a passenger side (right side) collision, etc.
Pre-Crash Heading	<Heading>	O		3	N	Indicates direction vehicle was heading directly before crash (measured in degrees (0-359))
Rollover	<Rollover>	O	1	5	B	Indicates if the vehicle rolled at any point during the crash greater than 35 degrees. Answer should be given as true or false.
Final Rest Orientation	<Orient>	O		1	N	Indicates orientation of vehicle at final rest. Value of "x" Translation Values "yyy" 0 Normal 1 Driver 2 Passenger 3 Roof 4 Unknown
Fire Indicator	<Fire>	O	1	5	B	Indicates if any part of the vehicle is on fire. Answer should be given as true or false.
Digital Imaging Location	<DigitalLocation>	O		N/A	AN	Indicates electronic address (For Example: url, ftp, etc.) where digital image is available, if image of incident was taken.

1.5 Seat Data (Seat Data is a tag <SeatData> and the parent element for all items in section 1.5. Therefore, all items in this section are treated as children of`Seat Data. All information in this section pertains to specific variables (e.g. airbag, seatbelt, etc.) associated with unique seat positions in the vehicle.)

NAME	LABEL	REQUIRED LABEL	MAX # BYTES	MAX # CHARACTERS	TYPE	DESCRIPTION
Seat Position	<Seat>	O		1	N	Indicates seatbelt and seat sensor data for individual seat positions in the vehicle Allowed Attributes: **Position** (Multiple values are acceptable)

						0 Driver front 1 Front row middle 2 Passenger front 3 Second row left 4 Second row middle 5 Second row right 6 Third row left 7 Third row middle 8 Third row right
						BEGIN: CHILD ELEMENTS OF SEAT (repeatable for each position)
Airbag Deployed	<AirbagDeployed>	O		0	A	Header for airbag data. Indicates the deployment of an airbag has occurred. Child element of Seat.
						BEGIN: CHILD ELEMENTS OF AIRBAG DEPLOYED
Location	<Location>	O		7	A	Indicates the unique airbag(s) that has deployed, including information on the airbag deployment stage. Answer should be given as Front, Side, Curtain, or Roof. Multiple answers are allowed. Allowed Attributes: **NbrPossibleStages**[5] Valid Values: 1 2 3 **StageDeployed**[7] Valid Values: 1 2 3
						END: CHILD ELEMENTS OF AIRBAG DEPLOYED
Seatbelt Monitored	<BeltMonitored>	O	1	5	B	Indicates if a seatbelt in individual position is being monitored. Child element of Seat. Answer should be given as true or false.

[5] Indicates maximum possible airbag deployment stages for the airbag. Some airbags deploy at different forces based on multiple crash variables where a value of 1 indicates lowest deployment force, 2 indicates higher deployment force, etc.

[7] Indicates airbag deployment stage.

Seatbelt Fastened	<BeltFastened>	O	1	5	B	Indicates if a seatbelt is fastened. Child element of Seat. Answer should be given as true or false.[8]
Tensioner Triggered	<TensionerTriggered>	O	1	5	B	Indicates if the seat tensioner in individual seat location triggered the ACN notification. Child element of Seat. Answer should be given as true or false.
Seat Occupied	<Occupied>	O	1	5	B	Using vehicle seat sensor technology, indicates if a seat is occupied.[9] Child element of Seat. Answer should be given as true or false.
						END: CHILD ELEMENTS OF SEAT

1.6 Post Crash On-Scene Data (Post Crash On Scene Data is a tag <PostCrashOnSceneData> and the parent element for all items in section 1.6. Therefore, all items in this section are treated as children of Post Crash On Scene Data. All information in this section is assumed to be gathered by inquiries of the incident originator or agencies on the scene responding to the incident. Therefore, it is assumed that none of this information could be automatically known by the incident originator.)

NAME	LABEL	REQUIRED LABEL	MAX # BYTES	MAX # CHARACTERS	TYPE	DESCRIPTION
Number of Occupants	<NbrOccupants>	O		2	N	Indicates the number of occupants in the vehicle if known.
Occupant	<Occupant>	O		2	A	Unique identifier for each vehicle occupant. Allowed Attributes: **ID** 1-n
						BEGIN: CHILD ELEMENTS OF OCCUPANT (repeatable for each ID)
Name	<Name>	O		30	A	Indicates the name of the vehicle occupant. Open Text. Child element of Occupant.
Age	<Age>	O		3	N	Indicates the age of the vehicle occupant. Child element of Occupant.
Gender	<Gender>	O		1	A	Indicates the gender of the vehicle occupant. Child element of Occupant. Value of "x" Translation Values "yyy" M Male

[8] If seatbelt is not being monitored it will be impossible to determine if seat belt is fastened based on data from the vehicle. ** If seat belt is being monitored, and it is not fastened, it implies that the seat belt is unfastened based on data from the vehicle.

[9] If the seat is occupied but not monitored by the vehicle, the passenger occupancy will not be reflected by this data. ** If the seat is occupied by an inanimate object, a false positive is possible

						F Female U Unknown
Conscious	<Conscious>	O		1	A	Indicates if the vehicle occupant is conscious. Child element of Occupant. Value of "x" Translation Values "yyy" N No Y Yes U Unknown
Breathing	<Breathing>	O		1	A	Indicates if the vehicle occupant is breathing. Child element of Occupant. Value of "x" Translation Values "yyy" N No Y Yes U Unknown
Speaking	<Speaking>	O		1	A	Indicates if vehicle occupant is able to speak. Child element of Occupant. Value of "x" Translation Values "yyy" N No Y Yes U Unknown
Moving	<Moving>	O		1	A	Indicates if vehicle occupant is able to move. Child element of Occupant. Value of "x" Translation Values "yyy" N No Y Yes U Unknown
Bleeding	<Bleeding>	O		1	A	Indicates if vehicle occupant is bleeding. Child element of Occupant. Value of "x" Translation Values "yyy" N No Y Yes U Unknown
Entrapped	<Entrapped>	O		1	A	Indicates if the vehicle occupant is trapped in the vehicle. Child element of Occupant. Value of "x" Translation Values "yyy" N No Y Yes U Unknown
Thrown	<Thrown>	O		1	A	Indicates if vehicle occupant was thrown from the vehicle. Child element of Occupant. Value of "x" Translation Values "yyy"

						N No Y Yes U Unknown
						END: CHILD ELEMENTS OF OCCUPANT

1.7 Personal Medical Data (Personal Medical Data is a tag <PersonalMedicalData> and the parent element for all items in section 1.7. Therefore all items in this section are treated as children of Personal Medical Data. All information in this section is assumed to be previously known and stored by the incident originator or a third party provider. Some of the data may overlap with information collected on-scene by responding agencies.)

NAME	LABEL	REQUIRED LABEL	MAX # BYTES	MAX # CHARACTERS	TYPE	DESCRIPTION
Subscriber	<Subscriber>	O		30	A	Unique identifier for each individual listed under personal medical data subscription. Allowed Attributes: **ID** 1-n
						BEGIN: CHILD ELEMENTS OF SUBSCRIBER (repeatable for each subscriber)
Provider	<Provider>	O		30	AN	Header for Provider information. Child element of Subscriber.
						BEGIN: CHILD ELEMENTS OF PROVIDER
Name	<Name>	O		30	AN	Indicates the name of the company providing personal medical data. Open Text
Method of Retrieval	<RetrievalMethod>	O		1	N	Indicates method necessary to retrieve additional detailed medical records (e.g. EKG, MRI, etc). Child element of Provider Name. Value of "x" Translation Values "yyy" 0 Phone 1 Fax 2 Internet 3 Email 4 Other
Provider Phone Number	<TN>	O		10	N	Indicates telephone number of medical data provider. Child element of Provider Name. Format: NPANXXLINE (US only, prefix of 1 optional)
Provider Fax Number	<Fax>	O		10	N	Indicates fax number of medical data provider. Child element of Provider Name. Format: NPANXXLINE (US only, prefix of 1 optional)
Provider	<URL>	O		N/A	AN	Indicates URL of medical data provider. Child element of Provider

URL						Name. Format: http://
						END: CHILD ELEMENTS OF PROVIDER
Record Update Date	<Update>	O		10	N	Indicates last known update of personal medical data. Child element of Subscriber. Year, Month, Day. Format: CCYY-MM-DD
Name	<Name>	O		30	A	Indicates the name of the personal medical data subscriber. Open Text. Child element of Subscriber.
Age	<Age>	O		3	N	Indicates the age of the personal medical data subscriber. Child element of Subscriber.
Gender	<Gender>	O		1	A	Indicates the gender of the personal medical data subscriber. Child element of Subscriber. Value of "x" Translation Values "yyy" M Male F Female U Unknown
Primary Care Physician	<PrimaryCareMD>	O		0	A	Header for primary care physician information. Child element of Subscriber.
						BEGIN: CHILD ELEMENTS OF PRIMARY CARE PHYSICIAN
Primary Care Physician Name	<Name>	O		30	A	Indicates name of primary care physician. Open Text. Child element of primary care physician.
Primary Care Physician Phone Number	<TN>	O		10	N	Indicates phone number of primary care physician. Child element of primary care physician. Format: NPANXXLINE (US only, prefix of 1 optional)
						END: CHILD ELEMENTS OF PRIMARY CARE PHYSICIAN
Emergency Contact	<EmergencyContact>	O		0	A	Header for emergency contact information. Child element of subscriber.
						BEGIN: CHILD ELEMENTS OF EMERGENCY CONTACT
Emergency Contact Name	<Name>	O		30	A	Indicates name of emergency contact. Open Text. Child element of Emergency Contact.
Emergency Contact Phone	<TN>	O		10	N	Indicates primary phone number of emergency contact. Child element of Emergency Contact. Format: NPANXXLINE (US only, prefix of 1 optional)

Number						
Emergency Contact Phone Number Alternate	<AltTN>	O		10	N	Indicates alternate phone number of emergency contact. Child element of Emergency Contact. Format: NPANXXLINE (US only, prefix of 1 optional)
						END: CHILD ELEMENTS OF EMERGENCY CONTACT
Medical History	<MedicalHistory>	O		100	A	Indicates current medical conditions pertinent to acute medical treatment of passenger. Open text. (Multiple different medical conditions can be listed for each occupant) Child element of Subscriber.
Allergies	<Allergies>	O		100	A	Indicates medication allergies of passenger. Open text. Child element of Subscriber.
Medications	<Meds>	O		100	A	Indicates medications currently being taken by passenger. Open Text. Child element of Subscriber.
Blood Type	<BloodType>	O		15	A	Indicates blood type of passenger. Open text. Child element of Subscriber.
Organ Donor	<OrganDonor>	O		5	A	Indicates if passenger is an organ donor. Child element of Subscriber. Answer should be given as true or false.
Preferred Hospital	<PrefferedHospital>	O		30	A	Indicates the name of the preferred hospital for treatment of passenger. Open text. Child element of Subscriber.
Living Will/DNR	<LivingWill>	O		5	A	Indicates that the presence of a living will or formal end of life document, such as “do not resuscitate” (DNR) exists for passenger. Child element of Subscriber. Answer should be given as true or false.
Drivers License	<DriversLicense>	O				Header for drivers license information. Child element of Subscriber.
						BEGIN: CHILD ELEMENTS OF DRIVERS LICENSE
Drivers License Number	<Number>	O		15	AN	Indicates drivers license number of passenger. Open Text. Child element of drivers license.
License State/Province of Issue	<StateProvince>	O		3	A	Indicates the license state/province of issue of passenger. Open text. Child element of drivers license.
						END: CHILD ELEMENTS OF DRIVERS LICENSE
Social Security Number	<SSN>	O		11	N	Indicates the social security number of passenger. Open Text. Child element of subscriber.
Primary	<InsuranceProvid					Header for primary insurance provider information. Child element of

Insurance Provider	er>					subscriber.
						BEGIN: CHILD ELEMENTS OF PIMARY INSURANCE PROVIDER
Primary Insurance Provider Name	<Name>	O		30	A	Indicates the primary insurance provider of passenger. Open Text. Child element of primary insurance provider.
Policy ID Number	<PolicyID>	O		20	AN	Indicates the insurance policy ID number of passenger. Open Text. Child element of primary insurance provider.
Insurance Provider Phone Number	<TN>	O		10	N	Indicates the telephone number of the primary insurance provider for passenger. Format: NPANXXLINE (US only, prefix of 1 optional) Child element of primary insurance provider.
						END: CHILD ELEMENTS OF PIMARY INSURANCE PROVIDER
						END: CHILD ELEMENTS OF SUBSCRIBER

1.8 Open Comment

NAME	LABEL	REQUIRED LABEL	MAX # BYTES	MAX # CHARACTERS	TYPE	DESCRIPTION
Open Comment	<OpenComment>	O		400	AN	Open text field for general comments related to any section of the document.