

About This Standard

Current Status *Mandated*

Standard Identifier MISB EG 0601.1

Title of Standard

MISB Engineering Guideline 0601.1, Unmanned Air System (UAS) Datalink Local Metadata Set, 15 May 2008

Standards History

Introduced to Registry	Date Emerging	Date Mandated	Last Status Update	Last Status Review	Inactive/Retired
2008-11-20	n/a	2008-11-20	2008-11-20	2008-11-20	n/a

Replaced

[MISB Engineering Guideline 0601.1](#)

Standards Body

[MISB](#)

[Broken Link?](#)

URL to Access or Acquire

<http://www.gwg.nga.mil/misb>

Working Group

Primary Owner

Geospatial Intelligence (GWG)

Secondary Interest

No Secondary Interest

Service Area

GEOINT: Motion Imagery

KIPs

No KIP Found

Standard Applicability

2008-11-04

This MISB Engineering Guideline (EG) details the Unmanned Air System (UAS) Datalink Local Data Set (LDS) for UAS platforms. The UAS Datalink LDS is an extensible SMPTE (Society of Motion Picture Television Engineers) Key-Length-Value (KLV) Local Metadata Set designed for transmission through a wireless communications link (Datalink). This EG provides direction on the creation of a standard Local Data Set for a reliable, bandwidth-efficient exchange of metadata among digital motion imagery systems on UAV platforms. This EG also provides a mapping to Predator Exploitation Support Data found in MISB EG 0104, used in existing higher-bandwidth metadata systems.

Standard Abstract

2008-11-04

This EG provides direction on the creation of a standard Local Data Set for a reliable, bandwidth-efficient exchange of metadata among digital motion imagery systems on UAV platforms. The UAS Local Data Set metadata is intended to be produced locally within a UAS airborne platform and included in an MPEG2 Transport Stream (or equivalent transport mechanism). The MPEG2 Transport Stream (or equivalent) also contains compressed motion imagery from sensors such as an Electro-Optical / Infrared (EO/IR) video capture device. Synchronization between the metadata and the appropriate video packet is also required for ensuring the validity of the metadata. The MPEG2 Transport Stream (or equivalent)

embedded with UAS LDS metadata is then transmitted over a medium bandwidth (e.g. 1 to 5Mb/s) wireless Datalink and then disseminated. The scope of this document is to provide a framework for an extensible bandwidth-efficient Local Data Set which enhances sensor captured imagery with relevant metadata. This EG also provides a mapping between UAS Datalink Local Data Set items, ESD items, and Universal Data Set (UDS) items defined in the latest SMPTE KLV dictionary (RP-210) as well as in the MISB-managed Department of Defense (DoD) keyspace.

Profiling Questions

GEOINT: Motion Imagery

- Will your system send metadata with a full motion video (FMV) file from a UAV, or will your system need to carry user metadata with the FMV end to end through a system or will you build a fully network-based, metadata-enabled motion imagery system?

Products Incorporating This Standard

General Atomics, Delta Information Systems, and others

Relevant Information

This citation authored by the GWG Motion Imagery Standards Board.

Implementation Guidance

Guidance for using/implementing this standard is available from the Motion Imagery Standards Board (MISB) [<http://www.gwg.nga.mil/misb/>].

Standard Selection Criteria

Interoperability/Supportability

The DoD/ IC Motion Imagery Standards Board adopted Engineering Guideline (EG) 0601 in January 2006 for operation in Unmanned Aerial Systems (UAS). EG 0601 will be referenced by Edition 3 of STANAG 4609 on digital motion imagery and by Edition 3 of STANAG 4586 on UAS. This bandwidth-efficient metadata system is ideally suited for source, production, exploitation and dissemination processes (entire TPED process).

Technical Maturity

EG 0601 is relatively mature given that it was standardized in January 2006 by the MISB, demonstrated in that year, and adopted by NATO standards committees and by the US Army for air and ground applications.

Public Availability

<http://www.gwg.nga.mil/misb/engpubs.html>

Implementability

General Atomics and Delta Information Systems built prototypes and demonstrated systems utilizing EG0601 in early 2006. It has since been adopted in the DoD UAS Joint Interoperability Profile. It has been adopted by NATO STANAG 4586 on UAS and will be in Edition 3 of STANAG 4609 on digital motion imagery.

Authority

The Motion Imagery Standards Board, a DoD and Intelligence Community standards organization, maintains EG 0601. Edition 3 of NATO STANAG 4609 on Digital Motion Imagery will utilize EG 0601 and STANAG 4586 on UAS will point to EG0601. The Motion Imagery Standards board has an open process for maintaining and developing this standard.

Standard Type Military

Standard Classification Unclassified

Keywords for Search KLV, MISB, MISP, MPEG2, Metadata, STANAG 4586, STANAG 4609, UAS, UAV, datalink, exploitation support data, full motion video, local set, transport stream