

INCITS Proposal for a New Standard

1. Standard Framework Section

1.1 Title

American National Standard for Topographic LiDAR Remote Sensing

1.2 Date Submitted

October 24, 2006

1.3 Proposer(s)

ASPRS PAD LiDAR working group

2. Process Description for the Proposed Project

This standard specifies a schema that describes the framework of a primary data acquisition system

2.1 Project Type

D

2.2 Type of Document

Standard

2.3 Definitions of Concepts and Special Terms

None (TBD)

2.4 Expected Relationship with Approved Reference Models, Standards, Frameworks, Architectures, etc.

This proposed standard will relate to ISO 19101-2 as an expansion of the LIDAR Sensor section 6.2.4. to provide a fully developed standard. The complete standard will address sensor devices, architectures, classes, attributes, associations, operators and operations, relations, frameworks, data structures, exchange structures, and procedures. This standard will comply with the ISO standards for data products 19131 sensor data models 19130 and data formats specifications 19129. Since this standard is still in the drafting stages no complete determination of external relations is possible at this time

2.5 Recommended INCITS Development Technical Committee

INCITS L1

2.6 Anticipated Frequency and Duration of Meetings

It is anticipated that three or four meetings over a period of 18 months will be needed to produce the standard. Decisions being made by ISO/TC 211 related standards may effect the schedule for development of this standard.

2.7 Target Date for Initial Public Review (Milestone 4)

December, 2008

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2.8 Estimated Useful Life of Standard or Technical Report

The continued growth in application of LIDAR will sustain the need for this standard, and place continuing pressure on maintenance and currency therefore, it is anticipated that such a standard will become increasingly important. The estimated useful life of this standard is at least 15 years with enhancements.

3. Business Case for Developing the Proposed Standard or Technical Report

3.1 Description

The business case for this standard is based on the rapid expansion of applications of LIDAR technology and the equally rapid refinements in LIDAR implementations. Framework guidance for system developers, component manufactures, implementers, applications, and final users are essential at this time to prevent the chaos cost inefficiencies and lost opportunities associated with unstable incoherent technological implementations while preserving the open environment that fosters innovation.

3.2. Existing Practice and the Need for a Standard

Existing practices are evolving and no definitively accepted approach has stabilized hence optimized guidance is warranted

3.3. Implementation Impacts of the Proposed Standard

Unknown, but unquestionably a measure of stability, consistency, and harmony in development and application of LIDAR technology.

3.3.1 Development Costs

None.

3.3.2 Impact on Existing or Potential Markets

Existing and emerging markets will be sustained and enhanced by the establishment of this standard.

3.3.3 Costs and Methods for Conformity Assessment

No formal conformity assessment has been defined at this time specifically for this standard. Conformity will be limited to self- reporting until further establishment.

3.3.4 Return on Investment

No return on investment has been estimated.

3.4 Legal Considerations

3.4.1 Patent Assertions

None at his time

3.4.2 Dissemination of the Standard or Technical Reports

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We are not aware of any Intellectual Property Right assertions associated with this standard at this time.

4. Related Standards Activities

4.1 Existing Standards

None

4.2 Related Standards Activity

ISO/TC 211 will be requested to canvassing its membership to determine if there are related standards activities in work except for

ISO 19101-2,

ISO 19130, and

ISO 19129.

4.3 Recommendations for Close Liaison

None

5. Units of Measurement used in the Standard

The proposed standard will use the following units of measure:

Degrees, minutes, seconds

Radians

Feet

Meters