ISO Driving Licence Standards

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Purpose of the presentation

• Background
  ○ Integrity of current IDP

• Problem definition
  ○ Current needs & technology

• Suggestion/Proposal
  ○ Refer to ISO specification of driving licence card
Limitations of Current IDP

• Easily copied, altered, or simulated and difficult for law enforcement authorities to detect fraudulent licences from genuine documents.

• Many non-government IDP issuing authorities do not query their respective government motor vehicle agencies to establish if the DDP presented is still valid and still current.

• There is no register/directory of national motor vehicle agency addresses for the inquiry and exchange of information among the agencies to verify the validity of a presented IDP.

Limitations of Current IDP

• Does not incorporate the ISO machine-assisted data storage technologies whilst numerous DDPs do.

• Suspension or cancellation of domestic driving licence (DDL) or domestic driving permit (DDP) should result in an automatic suspension or cancellation of the IDP; however, the current system does not facilitate that.

• The IDP holder may circumvent disqualifications entered on their original IDP by obtaining a new IDP.
Limitations of Current IDP

- Validity of the IDP is currently limited to a maximum of 1 to 3 years, depending on the UN Convention followed.

- Requirement in 2006 Amendment of 1968 Vienna Convention that IDP must be accompanied by DDP:
  - Effectively renders IDP as translation only.
  - Places confidence in integrity of DDP, which may be of plastic or paper.

- DDP now becomes the focus of forgers and in many cases will not be able to withstand the test of time.

ISO/IEC 18013

- ISO/IEC JTC1/SC17/WG10
  - JTC 1 – Joint Technical Committee of ISO & IEC: Information Technology
  - SC17 – Steering Committee 17: Cards & Personal Identification
  - WG10 – Working Group 10: ISO Compliant Driving Licence

- Participation by both driving licence administrators and industry, eg DVLA (UK), RDW (Netherlands), SD (Austria), AAMVA (USA)
ISO/IEC 18013

• Currently consists of 4 parts:
  • Part 1: Physical format and human-readable properties
  • Part 2: Structure of machine-readable data
  • Part 3: Data protection and integrity validation methods
  • Part 4: Test Methods

• All 4 Parts published as International Standards
• Part 1 is currently under review (required by ISO after every 5 years)

ISO/IEC 18013

WG10 Participants:
• Australia
• Austria
• Canada
• Finland
• France
• Germany
• Greece
• Japan
• Korea (Rep)
• Malaysia
• Namibia
• Netherlands
• Singapore
• South Africa
• Sweden
• Switzerland
• United Kingdom
• United States
ISO/IEC 18013

Ballot is submitted to 44 countries (40 P-members), amongst others:

- Australia
- Austria
- Canada
- China
- Czech Republic
- Denmark
- Ecuador
- Finland
- France
- Germany
- Greece
- India
- Ireland
- Israel
- Italy
- Japan
- Kenya
- Korea (Rep)
- Malaysia
- Netherlands
- New Zealand
- Nigeria
- Norway
- Philippines
- Romania
- Russian Fed
- Singapore
- South Africa
- Spain
- Sweden
- Switzerland
- United Kingdom
- United States
ISO/IEC 18013

• UN Conventions on Road Traffic of 1949 (Geneva) and 1968 (Vienna) specify a Domestic Driving Permit (DDP) and International Driving Permit (IDP)

• ISO/IEC 18013 specifies an “ISO compliant driving licence” (IDL) that can perform the function of both DDP and IDP

• Number of signatories to Geneva Convention did not ratify and are not signatories of the Vienna Convention

ISO/IEC 18013

• From vehicle category and data content regulatory perspective ISO/IEC 18013-1 is compliant with both Geneva and Vienna Conventions, as well as European Union Driving Licence Codes, prior to 3rd Directive

• ISO/IEC 18013 allows flexibility for issuing jurisdictions to adapt (i.e. make more strict or add to) the ISO standard for domestic purposes without becoming non-compliant with ISO/IEC 18013
### ISO/IEC 18013: Mandatory data fields

<table>
<thead>
<tr>
<th>Item</th>
<th>Data field reference code on IDL</th>
<th>Card zone placement</th>
<th>Data element name</th>
<th>Description/Definition</th>
<th>Field maximum length/ type</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>1</td>
<td>Zone II</td>
<td>Family name</td>
<td>Last name, surname, or primary identifier of the licence holder</td>
<td>V2NAS</td>
</tr>
<tr>
<td>b</td>
<td>2</td>
<td>Zone II</td>
<td>Given names</td>
<td>First name(s), other name(s), or secondary identifier of the licence holder</td>
<td>V2NAS</td>
</tr>
<tr>
<td>c</td>
<td>3</td>
<td>Zone II</td>
<td>Date of Birth</td>
<td>Day, month, year on which the licence holder was born (if unknown, approximate Date of Birth)</td>
<td>F8N</td>
</tr>
<tr>
<td>d</td>
<td>4a</td>
<td>Zone II</td>
<td>Date of Issue</td>
<td>Date licence document was issued (same format as Date of Birth)</td>
<td>F8N</td>
</tr>
<tr>
<td>e</td>
<td>4b</td>
<td>Zone II</td>
<td>Date of Expiry</td>
<td>Date licence document expires (same format as Date of Birth)</td>
<td>F8N</td>
</tr>
<tr>
<td>f</td>
<td>4c</td>
<td>Zone II</td>
<td>Issuing Authority</td>
<td>Abbreviations may be used (see 4.10)</td>
<td>V8SANS</td>
</tr>
<tr>
<td>g</td>
<td>5</td>
<td>Zone II</td>
<td>Licence Number</td>
<td>The number assigned or calculated by the issuing authority</td>
<td>V2SAN</td>
</tr>
<tr>
<td>h</td>
<td>6</td>
<td>Zone III</td>
<td>Portrait</td>
<td>A reproduction of the licence holder’s portrait</td>
<td>V1SAN (Image)</td>
</tr>
<tr>
<td>i</td>
<td>7</td>
<td>Zone III</td>
<td>Signature</td>
<td>A reproduction of the licence holder’s signature, or usual mark, or thumb or finger print</td>
<td>V1SAN (Image)</td>
</tr>
<tr>
<td>j</td>
<td>9</td>
<td>Zone III</td>
<td>Categories of Vehicles</td>
<td>Vehicle types the licence holder is authorised to operate</td>
<td>V2SAN (or Records)</td>
</tr>
<tr>
<td>k</td>
<td>10</td>
<td>Zone II or IV</td>
<td>Date of issue per category</td>
<td>The date of issue for a specific class of vehicle if it is before the date of issue of the licence document (same format as Date of Birth)</td>
<td>F8N</td>
</tr>
<tr>
<td>l</td>
<td>11</td>
<td>Zone II or IV</td>
<td>Date of expiry per category</td>
<td>The date of expiry of the specific category if it expires before or after the date of expiry of the licence document (same format as)</td>
<td>F8N</td>
</tr>
</tbody>
</table>

### ISO/IEC 18013: Optional data fields

<table>
<thead>
<tr>
<th>Item</th>
<th>Data field reference code on IDL*</th>
<th>Card zone placement</th>
<th>Data element name</th>
<th>Description/Definition</th>
<th>Field maximum length/ type</th>
</tr>
</thead>
<tbody>
<tr>
<td>o</td>
<td>3</td>
<td>Zone II</td>
<td>Place of Birth</td>
<td>Country and municipality or state/province where the licence holder was born</td>
<td>V33A</td>
</tr>
<tr>
<td>p</td>
<td>4d</td>
<td>Zone II</td>
<td>Administrative Number</td>
<td>An audit control number assigned by the licensing authority</td>
<td>V2SAN</td>
</tr>
<tr>
<td>q</td>
<td>8</td>
<td>Zone II</td>
<td>Permanent Place of Residence</td>
<td>The place where the licence holder resides and/or may be contacted (street number, municipality etc.)</td>
<td>V10SAN</td>
</tr>
<tr>
<td>r</td>
<td>15</td>
<td>Zone II</td>
<td>Gender</td>
<td>Licence holder’s gender: M for male, F for female</td>
<td>F1A</td>
</tr>
<tr>
<td>s</td>
<td>16</td>
<td>Zone II</td>
<td>Height (cm)</td>
<td>Licence holder’s height in centimetres</td>
<td>F3N</td>
</tr>
<tr>
<td>t</td>
<td>16</td>
<td>Zone II</td>
<td>Height (ft.ln.)</td>
<td>Licence holder’s height in feet 1, inches 2 for example, 590+518hn</td>
<td>F3N</td>
</tr>
<tr>
<td>u</td>
<td>17</td>
<td>Zone II</td>
<td>Weight (kg)</td>
<td>Licence holder’s weight in kilograms</td>
<td>F3N</td>
</tr>
<tr>
<td>v</td>
<td>17</td>
<td>Zone II</td>
<td>Weight (lb)</td>
<td>Licence holder’s weight in pounds</td>
<td>F3N</td>
</tr>
<tr>
<td>w</td>
<td>18</td>
<td>Zone II</td>
<td>Eye Colour</td>
<td>Licence holder’s eye colour: blue, brown, black, hazel, grey, pink, dichromatic</td>
<td>V12A</td>
</tr>
<tr>
<td>x</td>
<td>19</td>
<td>Zone II</td>
<td>Hair Colour</td>
<td>Licence holder’s hair colour: brown, black, blonde, grey, red, blue, sandy, white, bald</td>
<td>V12A</td>
</tr>
</tbody>
</table>

NOTE: Data field reference codes 13 & 14 are not used as they are designated for domestic use in the EC Directives and in the amendments to the Vienna Convention (proposed Rev. 3 of WP 1, dated 5 Jan 2004).

* The use of the reference code on the IDL is optional for the data elements in this table. However, if a reference code is used, it shall be the reference code listed in this table.
ISO/IEC 18013-1

- Zoned approach – mandatory & optional data elements
- Placement of data elements
- Other graphical characteristics
- Physical card security

ISO/IEC 18013-1

- Example of ISO/IEC 18013-1 compliant driving licence issued by Namibia
ISO/IEC 18013-1: IDP Booklet

• Human-readable content of the DDP is displayed in extended Latin Character set
• Booklet explains content in languages and character sets specified in the Convention to accompany the DDP when the holder travels internationally

Important Notice to Holder!

1. The words "DRIVING PERMIT" in one of the languages English ("DRIVING LICENCE"), French ("PERMIS DE CONDUIRE"), or Spanish ("PERMISO DE CONDUCCIÓN") are printed in black lettering along the top edge of the card or alternatively in the background graphic design.
2. The colour of the background of the first 10 mm along the top edge of the card shall be predominantly pink.
3. The photograph of the holder of the licence is only depicted on the left side of the card.

Reconnaisance du PCI

Le Permis de Conduire conforme aux normes ISO (PCI) est reconnaissable par les caractéristiques générales suivantes présentes au recto de la carte:

- La mention "PERMIS DE CONDUIRE" traduite dans une des trois langues, anglais ("DRIVING LICENCE") ou français ("PERMIS DE CONDUIRE") ou espagnol ("PERMISO DE CONDUCCIÓN") doit être imprimée en lettres noires le long de l'arête supérieure de la carte, ou faire partie intégrante du fond de la carte.
- La couleur du fond de la carte devra être à prédominance rose dans un bandeau de 10 mm de large situé sur la partie haute de la carte.
- La photographie du titulaire est reportée uniquement sur la partie gauche de la carte.

(1) This booklet is not a driving permit, but merely translates your driving privileges into the languages agreed upon for international recognition in the United Nations (UN) Conventions on Road Traffic.

(2) Your valid ISO compliant Domestic Driving Permit must accompany this booklet at all times.

(3) It is understood that an ISO compliant Domestic Driving Permit shall in no way affect the obligation of the holder to conform strictly to the laws and regulations relating to residence or to the exercise of a profession which are in force in each country through which he travels.

ISO/IEC 18013-1: IDP Booklet

• On the Cover Page:
Domestic Driving Permit in International Use

• Inside Cover Page:
Important Notice to Holder!

(1) This booklet is not a driving permit, but merely translates your driving privileges into the languages agreed upon for international recognition in the United Nations (UN) Conventions on Road Traffic.

(2) Your valid ISO compliant Domestic Driving Permit must accompany this booklet at all times.

(3) It is understood that an ISO compliant Domestic Driving Permit shall in no way affect the obligation of the holder to conform strictly to the laws and regulations relating to residence or to the exercise of a profession which are in force in each country through which he travels.
ISO/IEC 18013-2

- Human-readable and machine-readable data should not conflict
- Mandatory data elements (identified in Part 1) has to be present (may be protected by basic access protection)
- Covered technologies: Barcodes, magnetic stripe, IC with contacts, contactless IC, optical memory
- Stated functions of the machine-readable data include:
  - Identity verification
  - Evidence of residence
  - Biometric authentication
  - Age verification
- Comprehensive specification for the storage of images
ISO/IEC 18013-3

Specifies mechanisms (for various storage technologies, as applicable) that allow for:

• Access control
  • Requires a “secret” to access data (or parts thereof)

• Document authentication
  • Verify that document was issued by apparent issuing authority

• Data integrity validation
  • Cloning
  • Exchange of machine-readable data carriers
  • Copied machine-readable data
  • Changes to human-readable data
  • Changes to machine-readable data
ISO/IEC 18013-4

Specifies test methods to confirm compliance with Parts 1, 2 and 3 of the specification for a contactless integrated circuit (microchip) on the card:

• Data content logic
• Access control
• Document authentication
• Data integrity validation

SUGGESTION/PROPOSAL

Format of the DDP and model IDP

• Committee on driving licences assisting EC adopted & recommended ISO/IEC 18013 as requirement for microchip on driving licence card
• Booklet specified in Part 1 can fulfil the role of the translation of the DDP in terms of the 2006 Amendment of 1968 Convention
• Integrity and authentication specifications in Part 1, 2 and 3 will render the DDP more secure against forgers and allow interoperability regarding the machine readable content
SUGGESTION/PROPOSAL

Format of the DDP and model IDP (continue)

• Opportunity to utilise technical work performed by ISO/IEC in publication of ISO/IEC 18013

• Amendment of Annex 6 and 7 of the Convention is suggested by reference to ISO/IEC 18013 regarding:
  o Format of DDP (Annex 6)
  o Model of IDP (Annex 7)
  without any changes to regulatory aspects of
  o Categories of vehicles specified in 2006 amendment of Convention
  o Data content to be displayed visually and stored electronically