The Electronic Seafarers Identity Document - Using the ePassport as a Model for the eSID

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Strengthening Aviation Security through Improved Traveller Identification

International Labour Organization

- Specialized Agency of the UN
- Founded in 1919
- Tripartite Structure – Governments, Labour and Employers
- Adopts International Labour Standards
- Recommendations (non-mandatory)
- Conventions (mandatory, force of international law)

Seafarers Identity Documents Convention

- Helps facilitate sea trade (90% of goods globally)
- Provides a mechanism to identify legitimate seafarers
- Enables shore leave, transit and transfer
- Started in 1958 with ILO Convention No. 108
  - No standardized security features and no uniform design
  - SID could be merged with passport or other documents
  - Flag states could issue to all seafarers on flagged vessels
- Revised in 2003 to ILO Convention No. 185

ILO Convention No. 185

- Standardized Format – Follows ICAO Doc 9303 Part 3 (2nd ed, 2002) or Doc 9303 Part 1 (5th ed, 2003)
- Stand-alone ID document
- Uses fingerprint biometric to authenticate seafarer
- Mandatory physical security features
- Only issued to citizens or residents by each country
- But predates ePassport so uses 2D barcode not chip

C185 SID Specimen (Front)

C185 SID Specimen (Back)

Nigerian Maritime Administration & Safety Agency   Phone:234+01+2673396, 7749547
SID HQTRS:No.15B Awolowo Road,South West Ikoyi Lagos,Nigeria   E-mail sidnig@nimasa.gov.ng
Corporate Address:Maritime House,4 Burma Road, Apapa,P.M.B.12861,G.P.O.Marina, Lagos, Nigeria
ISSUED UNDER THE AUTHORITY OF THE HONOURABLE MINISTER OF TRANSPORTATION OF
THE FEDERAL REPUBLIC OF NIGERIA

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ISNGA12348<110803<01<4<<<<<<<
5508017F0612014NGA<<<<<<<<<<3
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Problems with SID under ILO Convention 185

- MRZ readable at border but 2D barcode is not
- Confusion over whether SID is a travel document
  - Used with a passport for transit but alone for shore leave
- Complexity of ensuring interoperable templates
  - NIST MINEX is major ongoing investment for US PIV
  - ILO can't afford interoperability testing (last test in 2008)
- No digital security and no mechanism to exchange certificates if digital security was used

Solutions from ICAO Doc 9303 7th Edition

- Chip is standardized storage readable at borders
- Facial image is universal biometric that works both for human and automated recognition
- ISO 19794-5 facial image doesn't require interoperability testing
- ICAO PKD provides a method to distribute certificates and make digital security feasible
- Best solution is to make an eSID that follows the model for the ePassport card or book defined in Doc 9303

ILO Revision of Convention No. 185

- Tripartite maritime meeting in February 2015
- Consultation with ICAO in 2015/2016
- Second tripartite meeting in February 2016
  - Narjess Abdennebi represented ICAO – Was very helpful
- Revision to C185 drafted by tripartite committee
- Governing Body of ILO approved in March, 2016
- International Labour Conference adopted in June, 2016
- Revised C185 comes into force June 2017 although countries already issuing SIDs have a five year transition period

Highlights of Revised Text

- Convention No. 185 references Doc 9303 seventh edition "as it may subsequently be amended in accordance with the related procedures of ICAO"
- SID can be of TD1, TD2 or TD3 size
- MRZ shall conform to appropriate part of Doc 9303
- All data items required for SID are listed for all three sizes along with placement in correct zones according to Doc 9303
- Some mandatory elements for SID need to use Zone VI because they are not mentioned in Doc 9303

Highlights of Revised Text

- LDS in eSID contains only data group 1, data group 2 and Document Security Object
- eSID "shall be protected by at least three physical security features from the list contained in Appendix A to Part 2 of Doc 9303"
- The first two characters of the machine-readable zone shall be "IS" for TD1 or TD2 size, or "PK" for TD3 size
- Signing of the data must follow Doc 9303, but method of distribution of public keys is up to each government

What Happens Next

- 32 countries with existing ratification need to acquire new eSID issuance systems by June, 2022 (5 year transition limit)
- New ratifying countries will only have 6 months from ratification to begin issuing eSIDs
- ePassport reader manufacturers should ensure they recognize "IS" and "PK" as SIDs and can read MRZ and chip
- Countries will need help with their PKD
  - Some may use ePassport CSCA for SIDs
  - Some may need other methods

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