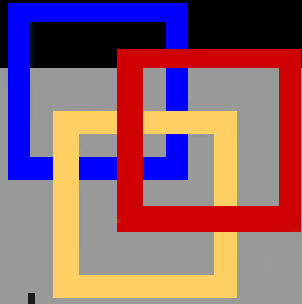# ILO Convention No.185 – Harmonization and Collaboration with ICAO
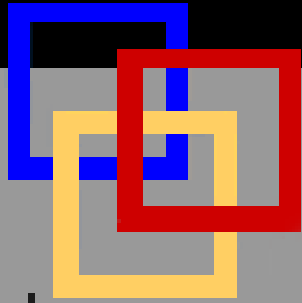
Cleopatra Doumbia-Henry
Director, International Labour Standards
International Labour Office
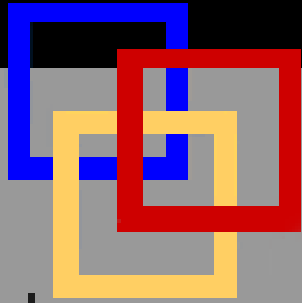
ICAO TAG/MRTD 20
Montreal, September 9, 2011

Outline of Presentation

- Introduction to ILO

- Introduction to C185

- Key Security Features of C185

- Areas of Potential Cooperation
  - Clarification that the SID is not a travel doc
  - Future SID containing a contactless chip
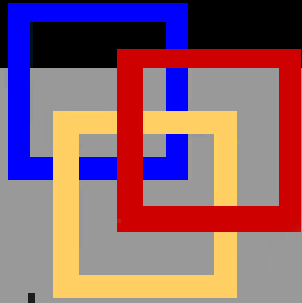 - Digital Signatures and the ICAO PKD

Introduction to ILO

- International Labour Organization (ILO)
  - Specialized agency of the United Nations
  - Created in 1919
  - 183 Member States
  - Tripartite Structure – Governments, Employers and Workers all have equal rights
- Adopts International Labour Standards
  - Conventions (e.g. C108, C185) – Mandatory
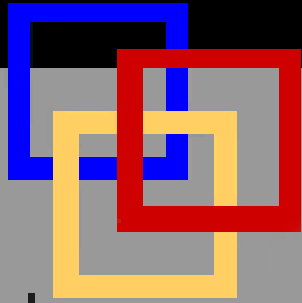 - Recommendations – Non-Mandatory

Introduction to Convention No. 185

- In 1958, ILO adopted C108, Seafarers' Identity Documents Convention
- Currently ratified by 59 member states
- Provides the force of law to the long held practice of facilitating entry of seafarers into a country for purpose of shore leave, transit, transfer or repatriation
- Documents defined in C108 have virtually no standardized security features, may be merged with passports ("seaman's passport") and can be issued to foreigners (for instance by flag states)
- Despite this almost every country in the world accepts C108 SIDs and allows seafarers bearing them to enter without a visa for shore leave
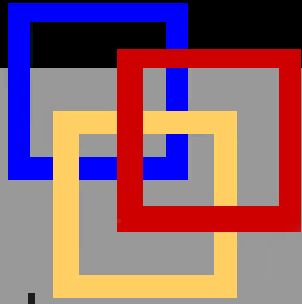
Introduction to Convention No. 185

- After events of 9/11, improving security of ports and ships became a high priority
- ILO decided to revise Seafarers' Identity Documents Convention (C108) to improve security through enhanced means of identification for seafarers
- ILO placed revision of Convention No.108 on the agenda of the International Labour Conference in March 2002
- In a uniquely rapid process, ILO held multiple sessions in 2002 and 2003 to receive input from relevant stakeholders and to receive technical advice from ICAO
- This culminated in June, 2003 with the International Labour Conference adopting the Seafarers Identity Documents Convention (Revised), 2003 (No.185)
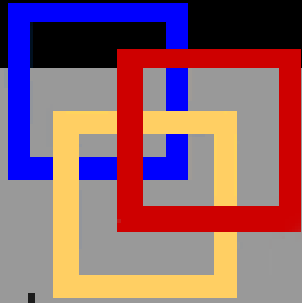
Introduction to Convention No. 185

- C185 entered into force on February 9, 2005
- 21 Countries have ratified, one more has declared it applicable (special option for C108 ratifying countries)
- EU Council has recommended ratification for all EU members, Decision 2005/367/EC
- United Nations General Assembly on 28 December 2008 invited all States to ratify C.185
- 79 countries currently legally obligated to accept documents issued under C185
- Most others accept C185 SIDs due to existing practice or bilateral agreements with other countries
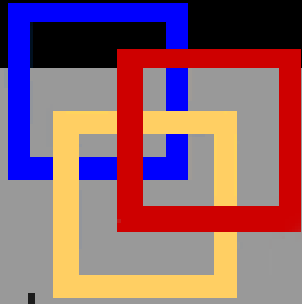
Key Elements of C185

- Can only be issued to citizens or permanent residents
- Harmonization of content and form
  - *"The materials used, dimensions and placement of data shall conform to the International Civil Aviation Organization (ICAO) specifications as contained in Document 9303 Part 3 (2nd edition, 2002) or Document 9303 Part 1 (5th edition, 2003)."*
  - Data contained in the SID is limited to specific data fields as defined in Annex I of Convention No. 185
- Mandatory minimum security features chosen from:
  - *"Watermarks, ultraviolet security features, use of special inks, special colour designs, perforated images, holograms, laser engraving, micro-printing, and heat-sealed lamination"*
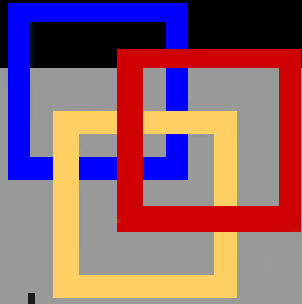
Key Elements of C185

- Biometric in document to support verification of the identity of the seafarer
  - Two fingerprint minutiae template using ISO/IEC 19794-2:2005
  - Stored in PDF-417 two dimensional barcode (as per then current version of Document 9303)
- National Electronic Database and Focal point
  - Each Member must create a national database containing key data from its SIDs including document number, seafarer name, and the date of expiry or suspension or withdrawal of the SID. This data is to be made available for document verification.
  - *"Each Member shall designate a permanent focal point for responding to inquiries, from the immigration or other competent authorities of all Members of the Organization, concerning the authenticity and validity of the seafarers' identity document issued by its authority"*

Key Elements of C185

- Issuance Processes and Procedures
  - Large sections of text in C185 give both mandatory and recommended guidance on the document issuance process
  - This includes such issues as stock control, trustworthiness and training of staff, division of responsibilities for document issuance, identity proofing and verification of breeder documents, database and computer security, etc.
  - The mandatory requirements are legally binding on the issuing authority and must be followed once C185 has been ratified
- Independent Audits
  - Every five years and independent auditor must evaluate all technical aspects of each national SID system against the requirements of Convention No. 185
  - Political and legislative aspects are covered by the existing ILO oversight regime

Key Elements of C185

- **International Review**
  - Each Member which has ratified C185 needs to submit samples of its SIDs, a statement indicating how it believes it has met the mandatory requirements of C185 and a copy of the independent auditor's report
  - A tripartite committee of the ILO reviews these documents and determined whether or not the Member fully satisfies the mandatory requirements
  - ILO publishes a list of Members which meet the requirements
  - This means that if the issuance system doesn't stand up to independent review and international oversight, the country will not be on the list and its SIDs are no longer required to be accepted by other countries

FEDERAL REPUBLIC OF NIGERIA
Federal Ministry of Transport
Seafarer ID Card

This document is a seafares' identity document for the purpose of the Seafarers' Identity Documents Convention (Revised), 2003, of the International Labour Organization. This document is a stand-alone document and not a passport.
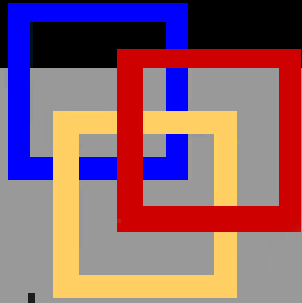
Family Name TANKO

Other Name NUHU

Nationality NGA

Sex F

Date of Birth 01/08/65

Place of Birth LAGOS

Personal Identification No 12345678901234

Document No 123456789

Date of Expiry 01/03/10

Date of Issue 01/03/05

Place of Issue LAGOS

123456789

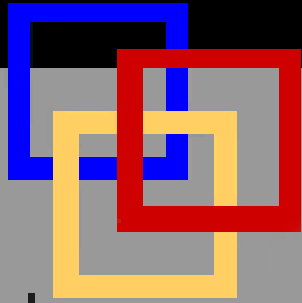**Signature of holder**

International Labour Standards

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

ISNGA12348<110803<01<<<<<<<<<<<
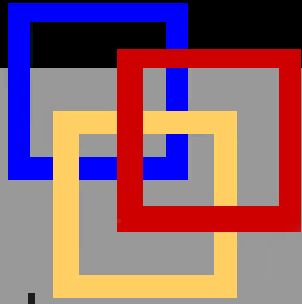5508017F0612014NGA<<<<<<<<<<<3
TANKO<<NUHU<<<<<<<<<<<<<<<<<<<<

Areas of Potential Cooperation

- **Since 2003, there has been some confusion about SIDs**

- **If the SID follows ICAO Document 9303, and allows entry without a visa, is it a travel document?**

- **Why does the SID use finger minutiae instead of images?**

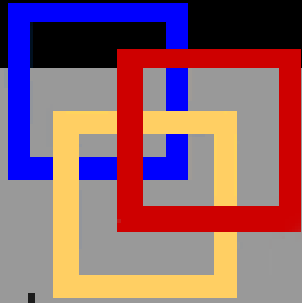- **Why does the SID use a barcode instead of a chip?**

Areas of Potential Cooperation

- **The SID is not intended to be a travel document, but a professional identity document that uses ICAO Document 9303 to ensure harmonization of form and content and to support interoperability at the border**

- **In 2002 and 2003 when the Convention was being developed, the barcode was the only reasonable extended storage medium available and was supported in Doc 9303**

- **Given the constraints of the barcode, a biometric template had to be used instead of an image and fingerprint minutiae was the closest to being a real standard and was recommended by ISO for interoperability reasons**
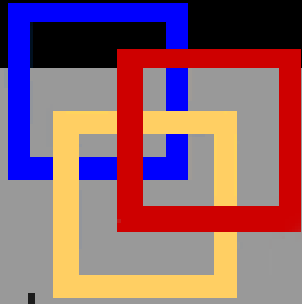
Areas of Potential Cooperation

- Recently, the PKD has started to take off and it appears that more and more border points will support ePassport reading and authentication
- SID Issuance has been slower than expected (partly due to cost issues) but also because C185 has little benefit over C108 if the more secure documents are not well accepted at borders
- ISO/IEC 24713-3:2009 was recently published and explains how to use multiple ISO standards to support biometric verification of seafarers
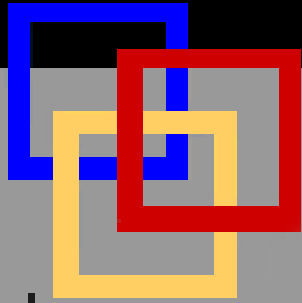
Areas of Potential Cooperation

- In September, 2010, ILO held a tripartite meeting to review 24713-3 and consider the way ahead for SIDs
- Cooperation with ICAO and improved interoperability and acceptability of the SID at borders was one of the primary concerns
- ILO Governing Body approved the investigation of new technical solutions, including a chip enabled SID
- Cooperation with ICAO is essential to make this work
- We are now in a new era with an opportunity to revisit some decisions from 2003 and bring new harmonization between ILO and ICAO documents
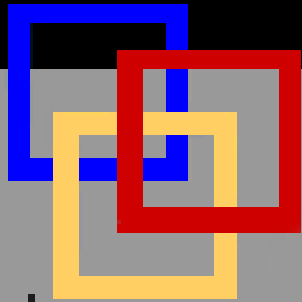
Areas of Potential Cooperation

- Clarification that the SID is not a travel document
  - ICAO Document 9303 Part 1 Volume 1 (6th edition, 2006)
    - *"In documents other than passports, e.g. United Nations laissez passer, seafarer's identity document or refugee travel document, the official title of the document shall be indicated instead of "Passport". However, the first character of the document code should be P."*
  - ICAO Document 9303 Part 3 Volume 1 (3rd edition, 2008)
    - *"The first character shall be A, C or I. The second character shall be at the discretion of the issuing State or organization except that V shall not be used, and C shall not be used after A except in the crew member certificate. The designation 'IP' shall be used for a passport card."*
  - SIDs may be TD1 or TD3 format
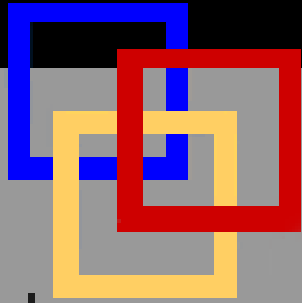   - This causes confusion. Is first letter of MRZ "I" or "P"?

Areas of Potential Cooperation

- Clarification that the SID is not a travel document
  - ILO believes that it would be better to use "I", with a second letter "S" in both TD1 and TD3 format SIDs to avoid confusion

  - The simplest solution, if the TAG approves, would be to modify the notes in both Part 1 and Part 3 to include the following statement:
    - *"The ILO Seafarers' Identity Document shall have I as the first character and S as the second character."*
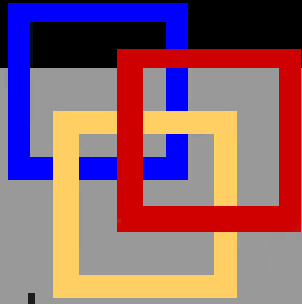
Areas of Potential Cooperation

- Concept of a Chip Enabled SID
  - ILO believes that interoperability and acceptance of the SID would be increased if it contained a contactless chip using the ICAO LDS
  - Since 21 Members have already adopted C185 on the understanding that only a barcode was required, the chip would need to be optional
  - Due to the existing articles of C185 as an international treaty, the chip could not contain additional information than the current SID
  - Would still need a fingerprint template rather than an image
- Proposed Structure of a Chip Enabled SID
  - Would follow most current version of ICAO Document 9303 (Part 1 or Part 3, depending on size of SID)
  - Would contain only Data Group 1, Data Group 2, EF.COM, EF.SOD and a fingerprint minutiae template (probably in Data Group 13)
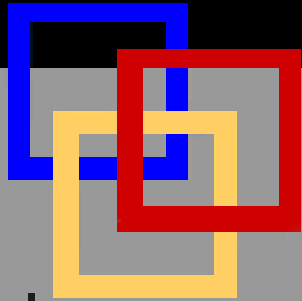
Areas of Potential Cooperation

- Question: - would the ICAO TAG/MRTD support such a design and would the NTWG be willing to review the modifications to ILO guidance documents required to support this change?
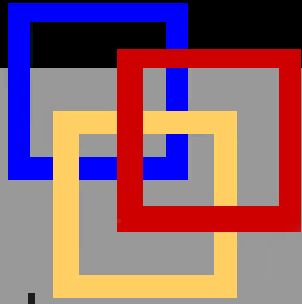
Areas of Potential Cooperation

- Proposed way forward on a chip enabled SID
  - ILO would modify its technical guidance document (ILO SID-0002) to change the references to ICAO Document 9303 to the latest versions and to include explanations of how to add an optional chip using the data groups already mentioned

  - ICAO NTWG would review this document and ensure it properly references and uses the ICAO standards

  - ILO would encourage its Members to consider implementing a chip enabled SID and participating in the ICAO PKD
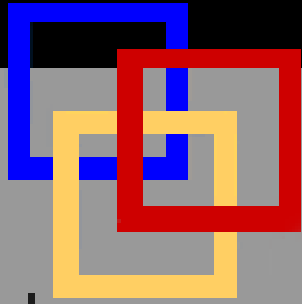
Areas of Potential Cooperation

- Proposed way forward on a chip enabled SID
  - ICAO would encourage its Members to support ratification of C185 and issuance of chip enabled SIDs in their countries. It would also help to communicate that a chip enabled SID can be read at the border exactly as they read an ePassport, when a seafarer presents their SID to receive a visa waiver for shore leave, transit or transfer

  - ICAO would add a note in the introduction of Volume 2 of Document 9303 Part 1 and Part 3 to reference the chip enabled SID. A possible text is included in the report, but the main concept is to acknowledge that a chip enabled SID is a valid document under Document 9303, as the current note in Volume 1 does for machine readable SIDs
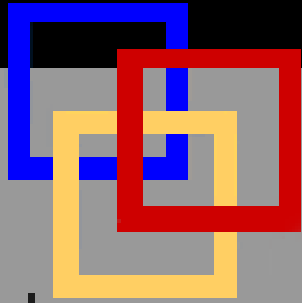
Areas of Potential Cooperation

- **Participation in the ICAO PKD**
  - In order to support the authentication of the chip enabled SID at the border, the signing certificates used for the SID need to be part of the ICAO PKD
  - There are potential benefits to this for increased use of the PKD
  - Most states which have ratified C185 are currently not in the PKD
- **This does create certain administrative issues**
- **The ICAO Secretariat or the NTWG will need to assist the ILO in resolving these issues before the final decision can be taken to move forward with a chip enabled SID**

Areas of Potential Cooperation

- Questions raised by adding the ILO SID to the PKD
  - ISO 24713-3 recommends SHA-256 for hashing and ECDSA for signing the data in an SID. Are these algorithms fully supported by the ICAO PKD?
  - Should the ePassport issuing authority and the SID issuing authority within a state each have their own Country Signing Certificate Authority (CSCA) or should they each use different Document Signer Key Pairs with the Document Signer Certificates signed by the same Country Signing Certificate Authority Key Pair?
  - If there is only a single CSCA then how do the two issuing authorities share the responsibility for maintaining the CSCA, interacting with the ICAO PKD and paying the fees for the ICAO PKD?
  - If a state has no ePassport but wishes to issue an eSID, how will this work?

Conclusions

- There now exists a unique opportunity to encourage renewed cooperation between ILO and ICAO and to bring the ILO SID into harmony with the latest specifications in ICAO Document 9303

- ILO asks the TAG to support this by agreeing to the three areas of cooperation outlined in the working document and in this presentation
  - Clarifying that the SID is not a travel document
  - Providing support for a chip enabled SID using the existing ICAO LDS
  - Working with ILO to determine how to integrate certificates for SIDs into the ICAO PKD