

**Addendum 2 to
Document RAG12-1/5-E
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Chairman of the Correspondence Group on BR Information Systems

**REPORT OF THE CORRESPONDENCE GROUP ON
BR INFORMATION SYSTEMS**



Report of the RAG Correspondence Group on BR Information Systems

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Geneva, 25-27 June 2012

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Overview

- Mandate
- BR Information Systems
- Reviews and recommendations
- Priorities
- Cost/benefit implications
- Roadmap



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Mandate

- review notice processing workflows
- review existing software and databases
- review the means to ensure the security and integrity of the software and databases
- evaluate existing platforms
- evaluate cost/benefit implications , give and prioritize recommendations
- establish target dates and a roadmap based on the recommendations



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BR Information Systems

- Reflect provisions of RR - International Treaty
- BR Databases - repositories of signatories
- ITU's obligations: secure handling of data availability of data & derived information
- TerRaSys - terrestrial
- SNS - space
- MARS - maritime
- RAG CG focus on Space System



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Notice processing workflow - review

- TerRaSys, SNS and MARS not integrated
- No immediate processing need to integrate
- IFL and HAPS may require common processing
- Common framework and approach needed
 - Streamlined security system
 - conceptual database design
 - Service Oriented Architecture



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Environment - review

- Good cooperation between IAP & SSD, IAP & TSD
- Imminent lack of expertise in legacy software
- BR Information Systems – complex skills/tasks for analysts



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Environment - recommendations

- Improve communication from IAP to administrations
- Improve transfer of knowledge within IAP
- Backups for tasks
- Documentation
- Improve cooperation between IAP divisions
- Continue regular IT training & RR training



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Existing software - review

- Technical examination software – legacy
- SpaceQry – support will cease
- SNS Online – limits of technology used
- Merge component – technology used not supported by IS Department
- SNTrack - difficult to modify and maintain



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Existing software - recommendations

- Continue to rewrite technical software
- Rewrite/integrate SpaceQry – SNS Online
- Secure merge component
- Rewrite/integrate SNTrack
- Improve communication on Application support/Tutorials to users



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Existing databases - review

- Databases on different platforms
 - control
 - synchronization
 - data integrity
 - security
- Database Administrator to ensure
 - system reliability
 - security



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Existing databases - recommendations

- Continue integration of space databases
- Full time DBA for space databases
- Improve security of space databases



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Security issues - review

- Security versus rigidity
- TerRaSys - centralized control and security
 - limited flexibility
- SNS
 - local control and security
 - extended flexibility
- No common security principles
- Compromise needs new framework



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Security issues - recommendations

- Establish common security principles
- Consider findings of on-going internal study
- Implement findings on security issues



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Platforms - review

- Legacy systems from late 80/early 90
- Migration to Linux/Windows platforms
- Different OS, languages
- Some initiatives to include Web based apps
- No consideration for mobile apps



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Platforms - recommendations

- Create framework to accommodate diversity
- Move away from legacy (mainframe) applications
- Consider web based applications
- Consider mobile applications



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Priorities - Phase 1

- implement WRC-12 decisions:
 - database change
 - program changes
- analyze resolutions 907 and 908 (WRC-12)
- consider tools for filing consolidation

Timeframe: 1 April 2012 – 31 December 2012



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Priorities - Phase 2

- rewrite TEX software (COBOL)
- rewrite SpaceQry (Visual Objects)
- reconsider use of remote shell
- rewrite SNTrack
- review SNS Online
- train staff in Service oriented architecture

Timeframe: 1 April 2012 – 31 December 2015



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Priorities - Phase 3

Create project team of BR, IS & external experts

- to design common conceptual DB
- common framework TerRaSys, SNS, MARS
- common risk, recovery and security mgmt
 - SNS processing around central DB
 - Web based system provide all functionalities

Timeframe: 1 January 2016 – 31 December 2018



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Cost/Benefit Analysis

Phase 1			
Topic	Activity	Cost	Benefit
WRC-12 decisions	Implementation	NO	Ensure continuous processing
Res. 907 & 908	Impact analysis	YES	Phase 2 Input

Phase 2			
Topic	Activity	Cost	Benefit
Res. 907 & 908	Implementation	YES	Complete WRC-12
Space TEX Software	Rewrite	NO	Improved stability
SpaceQry	Align to space SW	NO	Improved stability
SNTrack, SNS Online	Review	NO	Improved stability



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Cost/Benefit Analysis (cont'd)

Phase 2 (cont'd)			
Topic	Activity	Cost	Benefit
Integrated BR Information System (Methodology)	Training in SOA	YES	Preparation –Phase 3
Integrated BR Information System (Project Management)	Training in Project Management	YES	Preparation –Phase 3
Integrated BR Information System – external expert	Recruit expert	YES	Expertise in specialized field
Analysis of Phase 3	Feasibility analysis	YES	Preparation –Phase 3



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Cost/Benefit Analysis (cont'd)

Phase 3			
Topic	Activity	Cost	Benefit
Integrated BR IS - Conceptual Database	Design	NO	Basis of common approach for space and terrestrial systems
Integrated BR IS (space) - design	Analysis/Design	YES	Platform independence
Integrated BR IS(space) - implementation	Detailed design/implementation /testing	YES	Service oriented architecture
Integrated BR IS (space) - deployment	Training in Project Management	YES	System flexibility, enhanced security
Integrated BR IS (space) - training, on-line help	Create training material, publications, seminars, on-line help	YES	Greater user involvement



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Roadmap

Phase 1: Implementation of decisions of WRC-12



01.04.2012 31.12.2012

Phase 2: Rewrite TEX, SpaceQry, SNTrack, merge, SNS Online



01.01.2013 01.01.2014 01.01.2015

01.04.2012

31.12.2015

Phase 3: Project team: SOA, central space DB, security mgmt



01.01.2016

01.01.2017 01.01.2018

31.12.2018



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Thank you for your attention

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