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Integrated Control of the South African Border Environment

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Abstract

The Border Control Operational Coordinating Committee (BCOCC) is a national body "responsible for the strategic management of the South African border environment in a coordinated manner." This includes the key components of improved and coordinated security, trade and tourism.

Control of the border environment is inherently a multi-departmental responsibility, requiring extensive communication and coordination across departments, agencies and provinces, and covering the whole of the South African border environment. This environment includes land border lines and ports of entry; the harbours, coastline and Exclusive Economic Zone in the sea; and the airports and air borders that can essentially be anywhere in the country where international flights enter our airspace.

To control/coordinate the border environment effectively requires a vast range of information sources, reconnaissance and surveillance sensors, a communications infrastructure and a hub where information can be collected, collated, analysed and disseminated. This is often required in real-time to enable effective response to incidents.

This paper describes the approach which is currently being followed to create a new national asset, the National Border Coordinating Centre (NBCC).

1. The South African Border Environment

This paper explores the challenges of integrated control of the South African border environment by defining the scope of integrated border control, the national coordinating structures, and the first steps of an ambitious project to establish a national border coordinating centre.

While border control typically refers to the control of goods, people and means of transport that legally enters or exits a country, the security and law enforcement aspects of border control give it a much broader scope by including what is sometimes, perhaps simplistically, called border "lines". As such one refers to the South African 'border environment' (Figure 1) that includes the following:

- Air, Maritime, Land and Rail Ports of Entry (ie international airports, harbours and border posts)
- Air, land, sea border lines, including the land borders, air space and the Exclusive Economic Zone (EEZ) around the coast.

Various government departments are involved with the border environment and have to deal with people, goods, means of conveyance and the regulation of commercial activity and the prevention/combating of illegal activities. The key ones are:

> The SA Revenue Service, SA Police Service, Dept of Home Affairs, Dept of Transport, Dept of Health, Dept of Environmental Affairs and Tourism, Dept of Agriculture, Dept of Intelligence, SA National Defence Force, and the Dept of Public Works.

This poses a significant challenge for effective coordination of the key border control and security functions at the shared borders and ports of entry, as envisioned by Section 41 (1) (h) of the Constitution of the Republic of South Africa that states: "All spheres of government and all organs of state within each sphere must co-operate with one another in mutual trust and good faith …"

A major internal challenge facing government is changing the entrenched culture of "departmentalism/territorialism", or operating in 'silos' with narrow departmental self-interests. This lack of coordination militates against the coherence of cross-cutting programmes and ultimately compromises the impact of joint programmes.

In the border environment, this is evident in insufficient security at borders and ports of entry. There was a specific increase in awareness of the security of goods entering and leaving the country after the events of 9/11 in the USA. An absence of effective information coordination makes life easier for organised crime, and this has international implications.

A further challenge for border control is the sometimes conflicting requirements of national security and regional development. The position taken by Cabinet was that any measures taken to address challenges surrounding border security be informed by the need to balance border security with the need to facilitate legitimate trade, tourism and development in South Africa, in the SADC region and the continent as a whole.

The national body responsible for the strategic management of the South African border environment in a coordinated manner is the *Border Control Operational Coordinating Committee* (BCOCC). The recent introduction [1] of the concept of a "Lead Agency," supported operationally by a stronger BCOCC, represents a solution to the problem of fragmentation and ineffective co-ordination. The concept requires that one of the government departments operating in the border environment *chair* the BCOCC and be made simultaneously responsible and accountable for the co-ordination and successful operation of the border environment as a whole. Border control successes and failures are then traceable to a single accountable party that is answerable for the border environment as a whole.

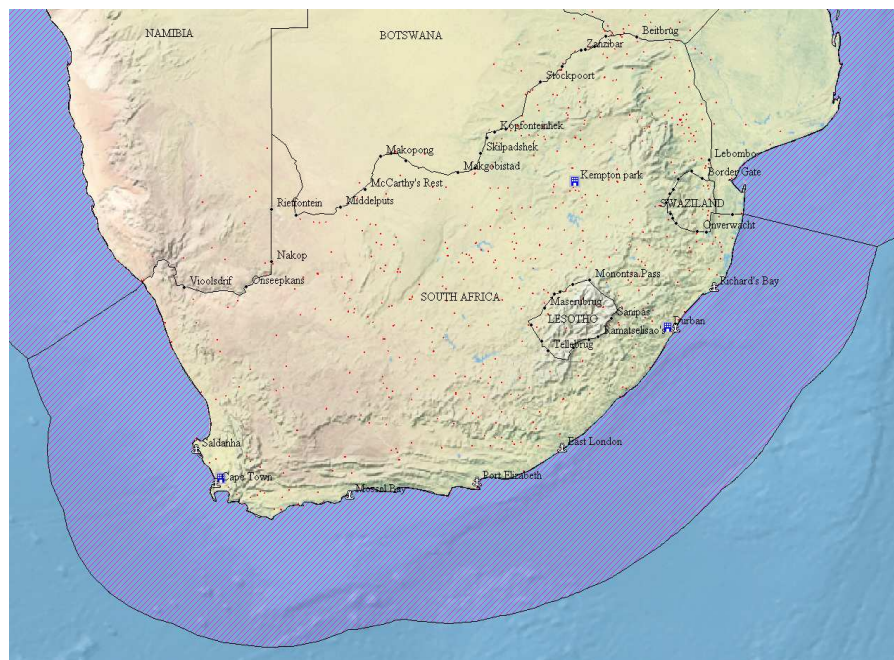The next section describes the BCOCC in more detail.

Figure 1: The South African Border Environment: land, air, maritime.

2. The Border Control Operational Co-ordinating Committee (BCOCC)

The BCOCC is responsible for the strategic and operational management of the South African border environment in a coordinated manner [1], including aspects of legislation, policy, security, development, maintenance, improving legal flow, promoting trade, tourism and development, law enforcement and budget management.

At a media briefing on 16 February 2007, the Chairperson of the JCPS Cluster, Minister Charles Nqakula announced: "The Cabinet Lekgotla decided last month to follow the international norm and ask the South African Revenue Service (SARS) to coordinate the country's border control work" [1].

In a co-operative border management relationship where there is a Lead Agency, all partners are located together at a port of entry, but there is a Lead Agency who has final responsibility and mandate to ensure proper and effective functioning of the border environment.

The Ministry of Finance and SARS are responsible for the overall coordination of the BCOCC. SARS has been empowered to facilitate and co-ordinate cross-cutting programmes and projects of the BCOCC.

The idea is not to erode or undermine the roles and line-functional responsibilities of the other stakeholders, but to provide leadership, requisite accountability and co-ordination of activities. Thus, the ultimate responsibility and accountability lies with the executive authority and accounting officer for SARS.

The reality of the matter is that the BCOCC is about achieving 'government-wide' goals, goals that transcend stakeholder boundaries.

As such the BCOCC EXCO will deal exclusively with the strategic management of the total border environment in a coordinated manner, with responsibility for implementation of the National Border Control and Security Strategy, and will interface with all stakeholders relevant to the border environment.

Figure 2 indicates the BCOCC structure, including the three committees responsible for Infrastructure (acquisition, provision and maintenance of infrastructure and ICT for BCOCC functions), Policy and Legal matters, and the National Border Coordination Centre (NBCC) committee that is also linked to provincial and local committees and joint control centres. The next section describes the evolving NBCC concept and the development project to establish the NBCC in more detail.

Figure 2: Structure of the Border Control Operational Coordinating Committee
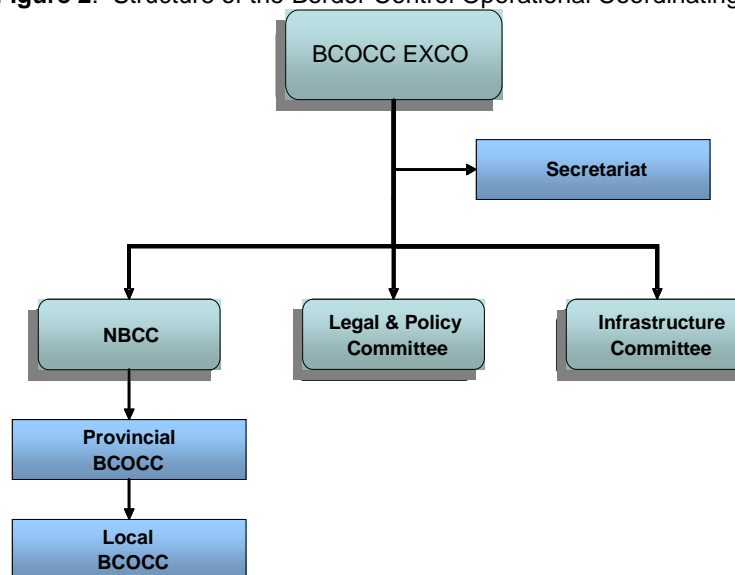
3. Establishing a National Border Coordinating Centre (NBCC)

The National Border Coordinating Centre (NBCC) will be responsible for the day to day management of the border environment in a coordinated manner, for centralising the day-to-day management of relevant tactical and operational intelligence and information, and channelling it to the relevant operational structures where it is required for action.

The NBCC will have an Information Coordination Centre (ICC) as a sub-structure to collate and analyse information and thereafter make recommendations for interventions where necessary. In addition, the NBCC will coordinate the management of surveillance, reconnaissance and communications aspects applicable to the border environment. A key feature is the fact that it will become a "national asset" with the following Vision:

> *A National Centre of Excellence for Enhanced Security and Efficiency in the Total Border Environment.*

and Mission:

- To provide comprehensive situational awareness for real-time, inter-departmental response.

- To support strategic and operational management of the total border environment through an analysis driven approach and the utilisation of state of the art technology.

- To improve national security, trade and tourism.

Figure 3 shows a high-level concept diagram for the NBCC, indicating the day-to-day functions of the ICC, enabled by real-time communication with ports of entry, border environment reconnaissance and surveillance sensors, departmental and other databases, and other, relevant operational centres.
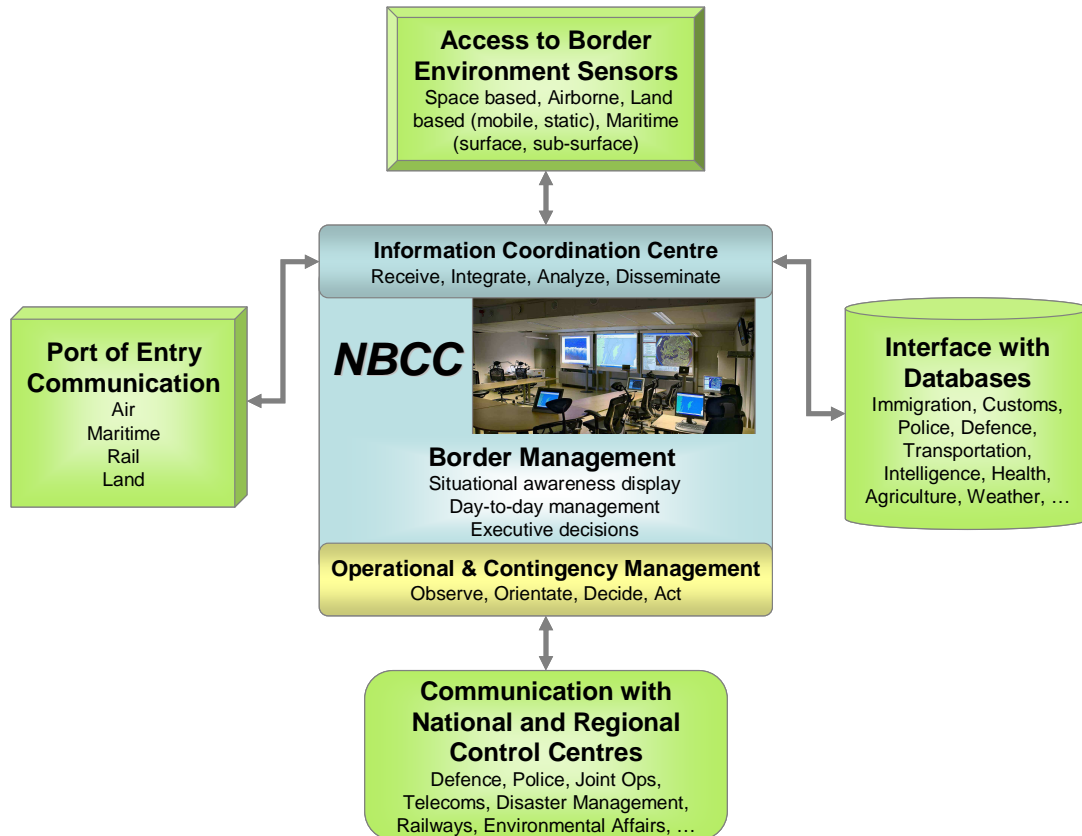

Figure 3: NBCC Concept Diagram

The core functions of the NBCC can logically be grouped in terms of the "OODA-loop" for situational awareness, i.e. Observe, Orientate, Decide and Act, followed by the next round of Observe etc. These functions apply to the border environment in different ways, as indicated for "Border Control" (facilitating legal trade and tourism) and performing the security and law enforcement functions at "Ports of Entry" and the "Border Line." These are indicated in Table 1 below.

For the ICC, the first challenges are getting access to a huge variety of current, legacy information/sensor systems and to define and establish access to required new situational information. In some cases there are current legal restrictions for information sharing between departments, and these need to be addressed through appropriate technological and/or procedural solutions (eg MOUs, firewalls, controlled access) that define the scope for "interfacing" with proprietary databases while preserving their integrity – this may still be via an appropriate individual from the relevant department.

The next challenge is to integrate (data fusion) the information from different sources and to analyse the information so that useful intelligence and a value-adding situational awareness picture can be generated for decision taking. This will then be disseminated in real-time for action by the appropriate line-function role-players. The 'Information Clearing function refers to the need for checking incoming and outgoing

traffic against a national list for restricted movement. In special cases, such as international "big events", this function may be extended to facilitate international cooperation.

Increasing sophistication of international organised crime and terrorism requires an increased ability to identify illegal activity through biometrics, intelligent surveillance, tracking systems, reference databases and contraband detection at ports of entry as well as the whole border environment.

The NBCC as a "central facility" addresses the need to have representatives from stakeholder departments together in one place on an ongoing basis. This not only shortens communication lines, but also creates the enabling environment for building the inter-personal relationships that are essential for successful cooperation and decision taking.

The operational support role of the NBCC facilitates integrated and coordinated action when this is required for successful response to threat assessments and actual incidents in the border environment.

Table 1: Core Functions of a National Border Coordinating Centre

Core Function	Border Control	Ports of Entry	Border Line
Border Information (Observe and Orientate)			
• Information Hub to receive real-time information and intelligence for analysis and dissemination to line-function role-players	✓	✓	✓
• Efficient interfacing with Communications, Reconnaissance and Surveillance Sources and Technologies	✓	✓	✓
• National Clearing Function for all goods and people entering and leaving through RSA Ports of Entry	✓	✓	
Border Management Support (Decide)			
• Provide a Central Facility to enable real-time, co-ordinated, inter-departmental border management	✓	✓	✓
Operational support (Act)			
• Facilitate responses to identified threats	✓	✓	✓
• Facilitate contingency management	✓	✓	✓
• Facilitate Joint Operations in the border environment	✓	✓	✓
International Coordination and Support			
• Provide an International Clearing Function facility on request		✓	

A structured systems engineering approach will be followed to refine the requirements and establish the core functions of the centre through the deployment of appropriate technology capabilities, in a way that will enhance security and efficiency at ports of entry. Figure 4 shows graphically how the technology strategy forms the glue between operational needs in the border environment, ever-emerging new technologies and the strategic objectives of integrated border control.

While the deployment of appropriate "technology" (means of effectiveness) is planned, this is only the beginning since overall effectiveness in terms of performance indicators depends on "technology capabilities" [4] that include skilled people and stream-lined inter-departmental processes.

The technology strategy and systems engineering approach guides implementation, but the urgency of implementation and the complexity of the border environment requires a modification: rapid prototyping and incremental implementation. This requires ongoing [4] technology management (Figure 5) whereby strategic requirements are identified; research & development define and pilot new solutions; technology

solutions are acquired; and these solutions are immediately deployed operationally where they contribute to effectiveness and form the basis for the next evaluation and improvement cycle.
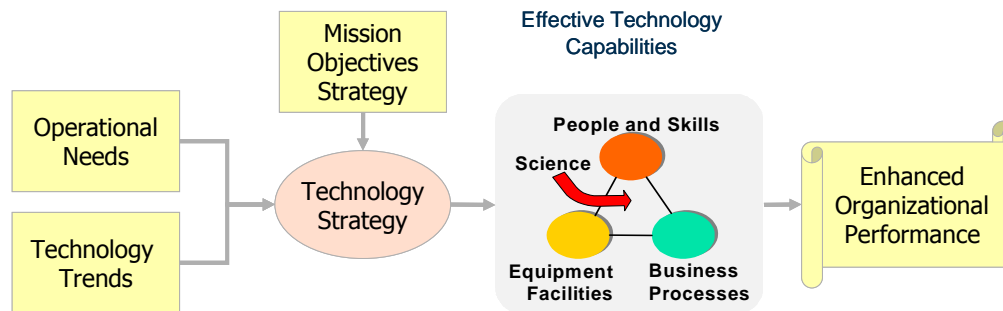

Figure 4: Technology Strategy as the glue to ensure enhanced performance
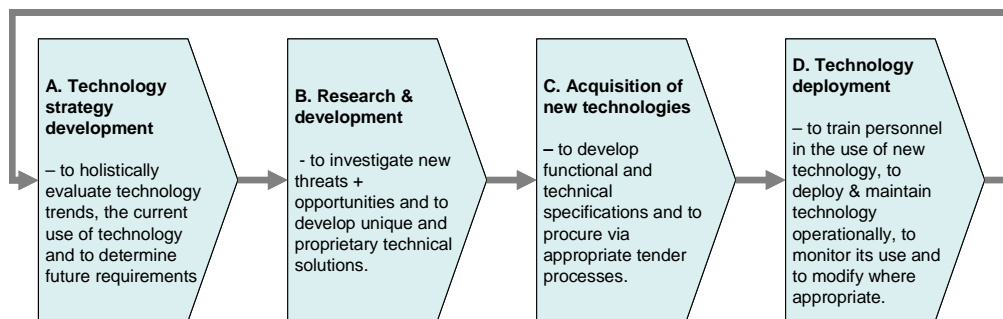

Figure 5: Ongoing Technology Management

4. European Union Research on Integrated Border Control

The following, for interest sake, and because of various similarities to current South African needs, gives a high-level description of a current research Call for Proposal for the European Union's 7th Framework Programme, in the Security Research Theme:

The Work Programme [2] has the following projects related to the Border Security Mission as shown graphically in Figure 6 [3]:

Work Programme 2007 - Mission / Activity 3: Intelligent surveillance and border security

- Demonstration project: Integrated border management system (phase 1)
- Integration projects:
    - Main port area security system (including containers)
    - Unregulated land borders and wide land surveillance system
    - Integrated check points security
- Capability projects:
    - Air 3D detection of manned and unmanned platforms

- o Surveillance in wide maritime areas through active and passive means

- o Solutions for ensuring disruption-tolerant end-to-end communications availability, relying on physical and logical technologies, on diversity of hybrid systems.
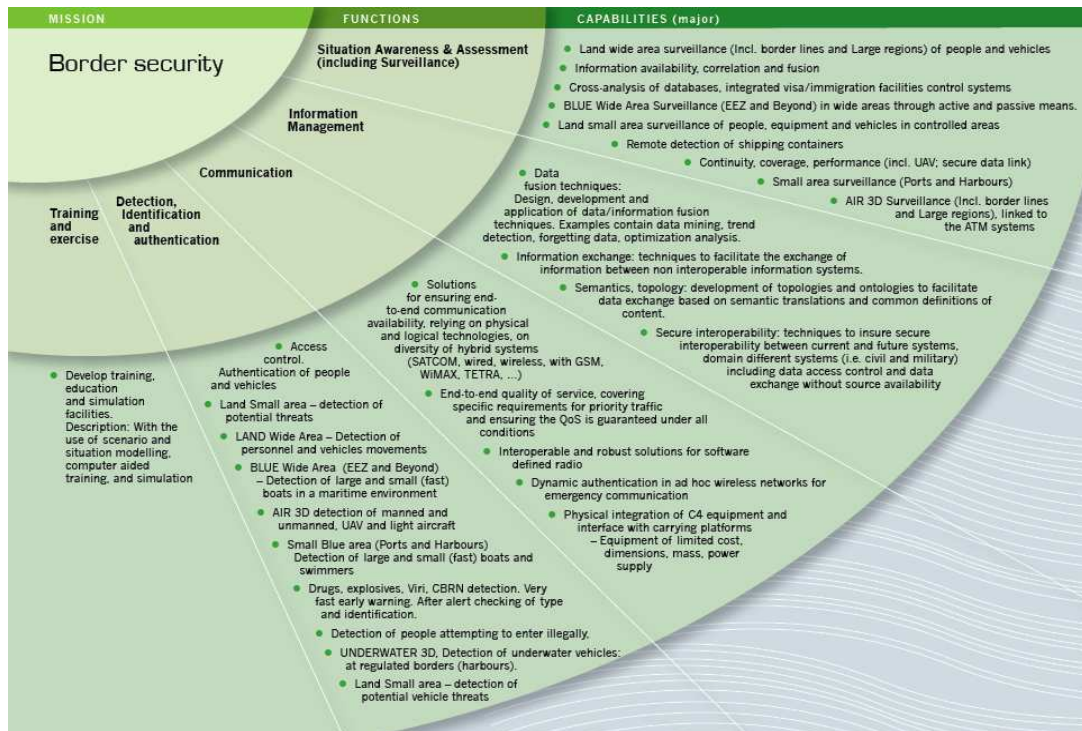

Figure 6: Structuring of the European Border Security Mission [3]

5. Concluding Remarks

Integrated management of the South African border environment, similar to other parts of the world, is a daunting task. There are legal challenges, challenges with respect to inter-departmental cooperation, challenges with respect to the extremely wide geographical area, challenges with legacy systems (information and communications systems, surveillance and reconnaissance sensors) and the requirements for high technology future systems, and challenges with the increasing sophistication of international organised crime and terrorism.

The current process to establish a National Border Coordinating Centre aims to address these challenges in a structured way in order to achieve "enhanced security and efficiency in the total border environment."

References

[1] *BCOCC Proposed Organisational Framework*, 30 March 2007, Pretoria.

[2] Work Programme, COOPERATION, Theme 10 Security, European Commission, http://cordis.europa.eu/fp7/dc/index.cfm

[3] European Commission, *Seventh Framework Programme 2007 – 2013, Security Research, Work Programme 2007 and first call for proposals, Information Day for Security NCPs*, 1 March 2007, Brussels.

[4] Developing Effective Technology Strategies, S Bone and T Saxon, Research & Technology Management, July-August 2000.