

Operational Analysis in the Frontline - A Progressive Environment

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Abstract

Progress across Bosnia Herzegovina (BiH) has been measured by operational analysts since NATO's Implementation Force (IFOR) deployed in December 1995. The first studies were conducted at a very low level concentrating on the basics of survival. By the time the Stabilisation Force (SFOR) arrived in November 1996, it was clear that the OA tools would need to be dynamic, developing alongside the progress throughout BiH. Maslow's "Hierarchy of Needs" theory was used to indicate when major changes were required to the analysis and in 1997 Measures of Effectiveness were introduced.

In 1998 a further step was taken with the first Transition Strategy Six-Month Review (TS SMR). This is the current method for tracking progress and is an integral element of SFOR's mission. The assessment runs parallel with a Troops to Task Analysis (TTA) and together they assist SHAPE with determining the levels of troops required within BiH. The methodology focuses on ten criteria identified by the North Atlantic Council (NAC), and is the first study to assess the level of sustainable progress achieved within BiH. This paper, presented at 16 ISMOR, discusses the necessity for dynamic OA at the frontline and how measurements of progress have developed since a cease-fire was announced in December 1995.

Introduction

The effects of the war on Bosnia Herzegovina (BiH) were devastating.

- The annual income decreased by 75%;
- Industrial output decreased by 95%;
- Generation of electricity decreased by 78%;
- Virtually all of the transportation system damaged;
- 63% of housing units damaged and 18% of housing units destroyed;
- 250,000 people killed, 200,000 injured and 13,000 disabled;
- 1.5 to 4 million landmines scattered across the countryside;
- Infant mortality rate doubled;
- 3.7 million displaced persons and refugees.

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In 1995, it was evident that NATO and the international community were essentially faced with rebuilding a country from scratch. To monitor their own progress in achieving this goal, it was necessary to measure the progress being made within BiH.

Operational analysts have been involved in this task since IFOR first deployed to BiH in December 1995. This was the first time that such a task had been attempted and although the way forward was initially unclear, the analysis was recognised as essential for aiding decision-making.

A number of papers have been published by George Rose and N.J Lambert on the early measures of progress, and additional information can be found at references 1 and 2.

Early Measures of Progress

Normality Indicators

The first study to measure progress was a low-level assessment measuring basic human needs. The aim was to measure “normality indicators”, that would enable IFOR staff to judge the progress being made in operations and in recovery. Typical indicators measured include:

- Availability of key goods and groceries;
- Urban food and goods outlets;
- Food prices and their stability;
- Urban traffic levels;
- Occupancy of houses.

By the time SFOR deployed to BiH in November 1996, it was evident that these “normality indicators” were now mainly satisfied, indicating that basic human needs were being fulfilled. It was therefore time for the assessment process to develop to take into account the changing environment within BiH.

Maslow's Hierarchy of Needs

It was essential to develop a methodology for measuring progress that would assist in detecting and measuring the level of recovery achieved within BiH. It was recognised that the main area of assessment should be the satisfaction of the people's needs, which is a topic that has been studied intensely over the last few decades. There have been many researchers involved in such studies, but perhaps the most well known, and also the most applicable to the problems within BiH, is Maslow's “Hierarchy of Needs” Theory (reference 3).

Maslow categorises human needs as follows (in reverse order):

- Self-actualisation needs;
- Esteem needs;
- Love, affection and belonging needs;

- Safety needs;
- Physiological needs.

He suggests that only when the lower needs are fulfilled will people move up the hierarchy. This theory is fairly intuitive. If, for example, someone is starving, the needs for esteem and status will be unimportant; only food will matter. Maslow's theory is a useful guideline for identifying the level of needs that have been satisfied and those that still require consideration.

Maslow states that everyone will strive to move up this hierarchy unless society places obstacles in their way. It was recognised that in BiH, obstacles were being placed in the way of normal progression, removing the opportunity for a smooth transition through the phases.

Measures of Effectiveness

The "normality indicators" had already shown that the physiological needs of the people of BiH were fulfilled and that a higher level measurement of progress was now required. A new assessment was therefore identified, which was dubbed "Measures of Effectiveness" (MoE).

The MoE assessment continued to examine progress at a low level, as this was where the data was available, but at the same time linking these into higher level goals. The higher level measurements included:

- Security;
- Quality of Life;
- Democratisation;
- Displaced person and refugee returns.

In 1998 it was clear, from the assessment of these measures of progress, that a level of security and stability had returned to BiH and that now a measure of sustainability was needed. This would assess whether progress was robust, indicating the level of SFOR attention and support from the international community still required. The new assessment, Transition Strategy, would measure the progress of the community as a whole, concentrating less on the individual, as this was now more appropriate.

Current Measure of Progress

Transition Strategy Six Month Review - Introduction

In October 1998, the first Transition Strategy Six-Month Review (TS SMR) was completed and a report prepared for SHAPE. This was the first measure of progress within BiH to measure sustainability and is now carried out at six monthly intervals. The report includes a military assessment of security, the TS SMR and a Troops to Task Analysis, all of which assist SHAPE with determining any modifications required to the tasks, mission and composition of SFOR.

The TS SMR process is based on questionnaires, completed by experts within HQ SFOR, which contain some 350 low-level questions (or indicators). The scores from these questions are used to calculate associated benchmark, objective and criterion scores, which give an indication of the level of progress achieved during the review period.

TS SMR - Criteria and Scoring

The TS SMR assessment is founded on ten criteria identified by the North Atlantic Council (NAC):

- Return of displaced persons and refugees (DPRE);
- Media reform;
- Arrest of persons indicted for war crimes (PIFWC);
- Public security and law enforcement;
- Illegal institutions, organised crime and corruption;
- Democratic governance;
- Military stability;
- Economic development;
- Support to international organisations.
- Brcko²;

These dimensions of progress encompass the security situation and civil implementation aspects of the Dayton Peace Agreement (DPA). Each criterion has a set of underlying objectives, benchmarks and questions, which are all scored on a scale of 1 to 5, leading to a score for the associated desired end-state. Experts within HQSFOR score each indicator using input from other officers within HQSFOR and the Multi-National Divisions (MNDs), their own judgement and data received from the international organisations. The scores indicate how far the aim of each criterion has been realised.

Each indicator has its own specific scoring system, but in general, the scores should be interpreted as follows:

- 1 – indicates a state of profound instability and frequent serious violence requiring extensive SFOR attention and increased strength;
- 2 – indicates a state of general instability, with only a few problems resolved (roughly 25%), frequent minor and occasional serious violence, requiring enhanced SFOR attention and increased presence;
- 3 – indicates a state of uneasy calm and occasional minor violence, with some problems resolved but others remaining (roughly 50% each), requiring SFOR attention and continued presence at current levels;

² Brcko is a municipality in northern Bosnia claimed by both entities. The criterion examines how the municipality is progressing using many of the indicators applied to the entire country.

- 4 – indicates a state of general stability, with most problems (roughly 75%) largely resolved and remaining difficulties requiring SFOR attention and limited presence;
- 5 – indicates a state of stable, effective peace and security that does not require SFOR attention or presence.

A forecast, as well as a score, is given to each indicator, estimating the time before the subject will no longer be an issue to SFOR. The score and forecast are substantiated with explanatory comments and these are particularly useful for assessing the actual changes that have taken place.

The assessment examines both entity (Federation and Republika Srpska) and BiH levels, depending on which is most appropriate for the topic being analysed. A municipality level assessment has also been included to produce a more comprehensive analysis, identifying clusters that require particular SFOR attention and those areas that are now fairly stable.

As the progress assessments are based on soft OA approaches, it is important not to place too much emphasis on the actual scores for each criterion, but use to them for analysing trends from one six-month review to the next. A change in the situation can be recognised by a (statistically) significant increase, substantiated by the accompanying comments. For example, an increase in score from 3.2 to 3.3 does not necessarily indicate progress, but more likely that there has been no change in the situation.

TS SMR - Civil Input

Experts within SFOR complete the questionnaires, but in order to provide an assessment that is comprehensive, civil inputs have also been taken into account. The military experts receive a data package produced from information obtained from International Organisations (IOs). The principle IOs that were contacted, include: Office of High Representative (OHR), UN Mission in BiH (UNMiBH), Organisation for Security and Cooperation in Europe (OSCE), World Bank (WB), International Police Task Force (IPTF), UN Mine Action Centre (MAC), World Health Organisation (WHO), International Committee of the Red Cross (ICRC), International Management Group (IMG), European Community Monitoring Mission (ECMM), Customs and Fiscal Assistance Office (CAFAO), Independent Media Commission (IMC) and International Criminal Tribunal for the former Yugoslavia (ICTY).

Lessons Learned Study

After each TS SMR, a lessons learned study is undertaken to ensure that the assessment process is up-to-date and credible for use in the next six-month review. This involves examining the methodology, as well as the content of the questionnaires.

The communication links and assessment timescales are examined and any revisions made for the next six-month review. The analysis is developed by reviewing all of the questionnaire contents. Each question, benchmark, objective and criterion is assessed for its relevance, taking into account any change in the situation within BiH. It may be

necessary to change, delete or even add indicators, but at the same time ensure that the integrity of the trend analysis is maintained.

Life at the Frontline

There are inherent problems associated with soft OA approaches including the use of subjective rather than objective data, the quantifying of data and the inconsistency of results. Applying such analyses at the frontline can escalate some of these problems.

The frequent turnover of military staff at HQSFOR – typically every 4 to 6 months – can lead to hindrances in a project like the TS SMR. It is unlikely that an officer will complete two consecutive six-month review questionnaires, meaning that analysts need to ensure that inconsistencies are kept to a minimum. This can be achieved by encouraging a good handover of information to successors, supplying a comprehensive information package and forming good working relationships.

HQSFOR has a multi-national staff, but the official language is English. Officers who have recently deployed to Bosnia will generally lack the confidence and level of vocabulary required to complete a TS Questionnaire with the same competence as his predecessor. A good relationship between analysts and military personnel is therefore essential to ensure that any problems are communicated and that the language ability develops swiftly.

The frequent turnover of staff also means that knowledge leaves theatre along with the officers. It is therefore essential that a good handover of information is encouraged and that trust between military staff and analysts is established quickly. A practical step taken to overcome this problem is to supply all of the experts with a package of hard data and background reading obtained from the international organisations.

It is important that the information given to the SFOR experts is as up-to-date as possible. This is best achieved by forming a good working relationship and gaining the trust and respect from the relevant personnel within the international organisations.

The living and working conditions at the frontline are unusual. Everyone works together and lives together, with conditions being less than comfortable. It is therefore essential to form good relationships, so that the assessment process is not jeopardised for personal reasons.

The key to working at the frontline is teamwork. Cooperation between military staff, civilian analysts and the international organisations is essential.

Conclusion

Progress measurement studies highlight the problem of using numbers when a soft OA approach is taken. It is essential that the scores are not analysed in isolation, but examined in view of previous scores, forecasts and substantiating comments. Care should be taken when drawing conclusions from the results.

Frontline analysis dictates that good relationships and teamwork are maintained between military and analytical personnel. The extreme nature of close living and working conditions could easily lead to friction. A major problem faced by analysts is the

frequent turnover of military staff at HQ SFOR – typically every 4 to 6 months. The TS SMR attempts to overcome this problem with close relationships with the experts and providing detailed information packages to each of these assessors, giving background information as well as hard data.

The main consideration however concerning frontline analysis is that the situation and environment are constantly changing. The analyst needs to be aware of this, and update any analysis tools accordingly. The process therefore needs to be dynamic and the analyst up-to-date with events.

References

1. Supporting the Peacekeepers: Operational Analysis Support for NATO's Stabilisation Force, William J Owen, ORD NC3A, June 1997.
2. Measures of Effectiveness: Progress on Bosnia-Herzegovina's Road to Recovery, William J Owen, ORD NC3A.
3. Understanding Organisations, C. Handy, Penguin UK, 1993.

Operational Analysis in the Frontline - A Progressive Environment

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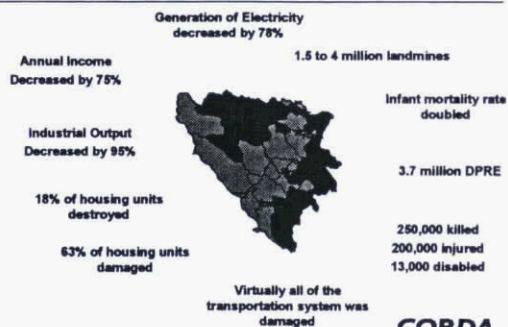
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Summary

- Background
- Measures of Progress
- Lessons Learned Study
- Living / Working at the Frontline
- Final Thoughts

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Effects of War

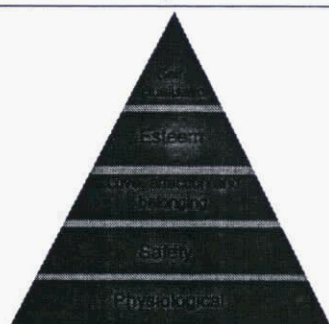


Normality Indicators

- Low level analysis
 - Availability of Key Goods
 - Urban Food and Goods Outlets
 - Food Prices and their Stability
 - Urban Traffic Levels
 - Occupancy of Houses

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Maslow's Hierarchy of Needs



Measures of Effectiveness

- Measures of progress
 - Security
 - Quality of Life
 - Democratisation
 - DPRE Returns

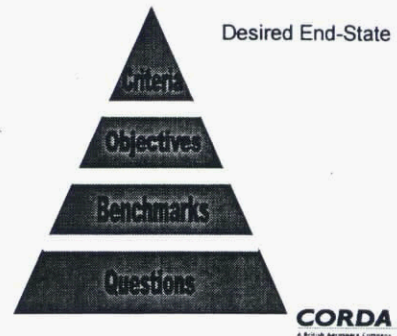
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Transition Strategy (TS)

Sustainability

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TS - Questionnaires



TS - Question Example

Question H111: Do the entities furnish all requested information about the type and number of weapons?

5	Entities always furnish information about type and number of weapons
4	Entities are usually cooperative
3	Entities cooperate some of the time
2	Entities cooperative occasionally
1	Entities do not cooperate in providing information about number and type of weapons

Comments:

Score (FED)	
Score (R3)	
Forecast (years)	

Supporting Assessors	MND-N	MND-SE	MND-SW	OSCE	J2	CFLO
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TS - Underlying Scoring Structure

5 - Stable, effective peace and security. No SFOR attention required.

1 - Profound instability and frequent serious violence. Extensive SFOR attention and increased strength required.

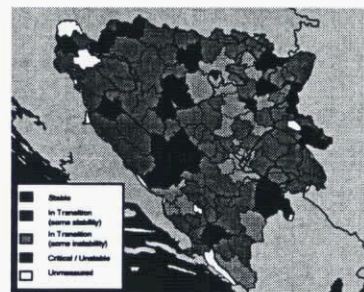
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Trend Analysis

Has there been SIGNIFICANT progress since the last six month review ?

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Municipal Level Assessment

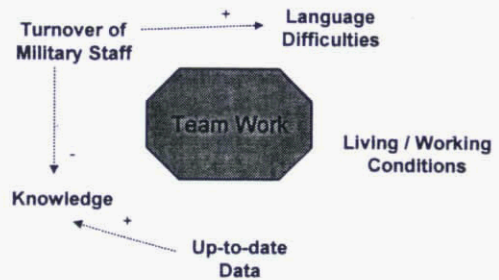


Lessons Learned Study

- General methodology
 - Communication
 - Timescales
- Developing analysis
 - New questions etc.
 - Remove questions etc.
 - Altering questions etc.

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Life at the Frontline



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Final Thoughts on Frontline Analysis

- Use of Numbers in Soft OA
- Good Relationships and Team Work
- Importance of Dynamic Process

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Questions



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