

**ON-SITE INSPECTIONS IN ARMS CONTROL AND  
DISARMAMENT VERIFICATION JOHN HART**

# verification**matters**

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## **Acronyms**

Biological Weapons	<b>BW</b>
Biological and Toxin Weapons Convention	<b>BWC</b>
Confidential Business Information	<b>CBI</b>
Confidence-Building Measure	<b>CBM</b>
Conventional Armed Forces in Europe	<b>CFE</b>
Confidence- and Security-Building Measure	<b>CSBM</b>
Comprehensive Nuclear Test Ban Treaty	<b>CTBT</b>
Comprehensive Nuclear Test Ban Treaty Organization	<b>CTBTO</b>
Chemical Weapon	<b>CW</b>
Chemical Weapon Destruction Facility	<b>CWDF</b>
Chemical Weapon Production Facility	<b>CWPF</b>
Chemical Weapon Storage Facility	<b>CWSF</b>
Chemical Weapons Convention	<b>CWC</b>
Executive Council	<b>EC</b>
Gas Chromatograph/Mass Spectrograph	<b>GC/MS</b>
International Atomic Energy Agency	<b>IAEA</b>
International Monitoring System	<b>IMS</b>

Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles	<b>INF</b>
Material Unaccounted For	<b>MUF</b>
North Atlantic Treaty Organization	<b>NATO</b>
Non-Proliferation Treaty	<b>NPT</b>
National Technical Means	<b>NTM</b>
Object of Verification	<b>OOV</b>
Organisation for the Prohibition of Chemical Weapons	<b>OPCW</b>
Operational Manual	<b>OpsMan</b>
On-Site Inspection	<b>OSI</b>
Point of entry	<b>POE</b>
Preparatory Commission	<b>PrepCom</b>
Strategic Arms Reduction Treaty	<b>START</b>
Treaty-Limited Equipment	<b>TLE</b>
United Nations Monitoring, Verification and Inspection Commission	<b>UNMOVIC</b>
United Nations Special Commission on Iraq	<b>UNSCOM</b>
Verification Coordinating Committee	<b>VCC</b>
Warsaw Treaty Organization	<b>WTO</b>



## **Executive summary**

A comparative theoretical framework of on-site inspections (OSIs) is presented. Specific regimes, together with their historical contexts, are then described, including the implementation of OSIs. The future nature and role of OSIs, as well as related technical aspects, are also considered.

While some OSI regimes are broadly comparable in terms of purpose and implementation, the variety of their respective structures and specific purposes makes it difficult to draw meaningful comparisons across the various regimes. Since OSIs have generally been considered within the context of individual treaty regimes, it is hoped that the present study will provide a clearer understanding of their role in arms control and disarmament regimes generally.



## **Introduction**

The purpose of this study is to analyse the concept of OSIs in theory and the role they play in arms control and disarmament regimes in practice, and to assess the current implementation of OSI provisions in selected regimes.

OSIs can be the single most important component of a monitoring and verification regime. They are usually more intrusive than remote monitoring and therefore may be more likely to uncover certain types of violation. OSIs can also uncover ambiguities or anomalies which can be resolved through interaction between the inspection team and the inspected state. The value of the interaction is enhanced when the inspection teams are well trained and understand what is necessary to achieve clearly understood inspection objectives. OSIs are also useful in showing how the general principles contained in an agreement are put into effect at the working level. If implemented with some flexibility and non-dogmatically, OSIs can be effective in reducing tensions among treaty parties and enhancing confidence that a regime is being properly implemented.

OSI provisions are often the result of complex negotiations. They are implemented by highly specialised individuals and groups. Implementation may also require the use of specialised or adapted technologies.<sup>1</sup> Virtually all the political sensitivities associated with a given arms control or disarmament regime will in some way be reflected in the way in which OSIs are perceived, planned and implemented. Approved inspection equipment, for example, is chosen not simply because it allows inspectors to fulfil their mandate

but because it does not reveal irrelevant yet sensitive information. Such information could be confidential business information (CBI) or information of military significance not directly relevant to treaty compliance. Cost is often the most important of all considerations, at least for multilateral regimes (those involving more than two parties). It can affect the agreed size of inspection teams and lead to adjustments to the frequency and level of intrusiveness of inspections. The development of verification technologies to either supplant or support OSIs is often driven by efforts to improve the cost-effectiveness of a regime.

## Scope

This study will analyse the OSI provisions of the major arms control and disarmament regimes for conventional, chemical and nuclear weapons. Regimes with a coercive element, such as the United Nations Special Commission on Iraq (UNSCOM), UNSCOM's successor, the United Nations Monitoring, Verification and Inspection Commission (UNMOVIC)<sup>2</sup> and the 1995 Dayton Agreement, are not dealt with in detail and are mentioned for comparative purposes only.<sup>3</sup>

## On-site inspections versus on-site presence

A distinction is drawn between an OSI and an 'on-site presence'. An on-site presence involves the continuous presence of personnel or equipment. For the purposes of this study, any essentially permanent presence of inspection personnel will not be considered an OSI. Long-term, permanent, continuous portal monitoring, such as that conducted for 13 years under the 1987 Intermediate-Range Nuclear Forces (INF) Treaty, for example, will not be analysed, nor will the continuous automatic monitoring of nuclear facilities by the International Atomic Energy Agency (IAEA). Since the time an inspection takes in different regimes can vary considerably, from several hours to months, the distinction between OSIs and on-site presence is not, however, always immediately apparent. This study will provide clari-

fication where necessary. For example, the Organisation for the Prohibition of Chemical Weapons (OPCW) monitors chemical weapon destruction facilities (CWDFs) for the entire period over which they operate. Such inspections are nevertheless considered under the heading of OSIs as an activity of limited duration, since the destruction of a chemical weapon (CW) stockpile of finite size is taking place. Moreover, when a particular ‘destruction campaign’ for a particular type of munition or CW agent stored in bulk is completed or the destruction facility is shut down for maintenance or repairs, the inspection team, in principle, leaves.<sup>4</sup>

## Definitions and terms

A great deal of attention is usually devoted to definitions and terms in the planning and conduct of OSIs because treaty implementation at the working level often revolves around what a word means. An understanding of the definitions is also important because some member states interpret treaty provisions strictly according to the ‘letter’, while others interpret them more broadly, in line with their conception of the ‘spirit’ of the agreement. The underlying reasons for either approach are political and financial and may, for example, be related to the intrusiveness of inspections, or the balance of cost and benefits to the state participating in the regime.

The nomenclature and its usage within an individual regime are not usually readily apparent to outside observers. Attention is drawn in this study to the peculiarities of certain specialised definitions and terms where necessary. However, comparisons across regimes are impossible without violating some of the conventions governing the use of certain definitions and terms. ‘Facility’, ‘plant’, ‘site’ and ‘object of inspection’ are among the terms used to describe the targets of OSIs in different regimes. The term ‘OSI’ or ‘inspection’ can itself seem odd to those involved in implementing some regimes. Where possible, sensitivities regarding use of definitions and terms have been observed and any major deviations noted.