Introduction

The Cold War was fought, above all, by the intelligence services. Now that this conflict is over, a struggle is being waged to understand the role of the hidden hand and its work behind the scenes.

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On 16 July 1945 in the New Mexico desert the world entered the atomic age. Trinity, as the explosion was code-named, was detonated at 5:30 in the morning. Though the device was moderately low yield, the test had a profound impact on its observers. Isador Rabi, a Manhattan Project scientist and future scientific adviser to President Eisenhower, recorded that 'a new thing had just been born; a new control; a new understanding of man, which man had acquired over nature.' Four years and one month later, near the town of Semipalatinsk in the Khazak steppe, a similar fission device was detonated, also atop a tower, and the Soviet Union became the second nation to join the nuclear high table.

Beginning with the outbreak of war in 1939, British intelligence had been concerned with enemy developments directed towards the military harnessing of atomic energy. As the Second World War progressed, the Allied atomic bomb programme made successful advances, culminating in the Trinity test explosion. By contrast, German scientists were unable to master the technology involved and pulled out of the race well before the final lap. British intelligence had been kept abreast of German progress primarily through the successes of well-placed agents.³

At various stages throughout the latter half of the war, different departments within Whitehall began to consider where the next threat might come from. Of these, perhaps the first two were the armed forces and the Secret Intelligence Service (SIS), which quickly zeroed in on the Soviet Union. In many respects, therefore, although the Foreign Office had not yet come on board, the defence and overseas intelligence branches of the British government had

found their postwar enemy. The result was an awareness, even before the war had ended, that the Soviet Union needed to be watched. In America a very similar realisation occurred. This factor, taken together with the truly devastating nature of nuclear weapons, meant that any future war would be very different in nature than any previous conflict. Accordingly, from 1945, information on the Soviet nuclear weapons programme became the highest priority for British and American intelligence.⁴

From 1945 until 1958, intelligence on the Soviet nuclear weapons programme was vital to Anglo-American intelligence and military planning. This period can be separated into three distinct stages: 1945–49, 1950–54, and 1954–58. During the first stage, 1945–49, in both countries atomic intelligence evolved from piecemeal wartime organisations into independent but integral components of the intelligence machinery. In Britain atomic intelligence was thus able to withstand numerous attempts to 'regularise' its setup into the traditional scientific intelligence organisation. Throughout this period, the primary intelligence concern was predicting when the Soviets would break the American atomic monopoly.

In August 1949, a matter of two or three years before predicted, the Soviet Union achieved such a feat. Although Britain enjoyed close relations with America throughout this period, the British were severely hampered by the passing of the 1946 U.S. Atomic Energy (or more commonly McMahon) Act, which had severed the exchange of technical information between the two countries.

Following Joe-1, as the first Soviet explosion became known, in 1949, Anglo-American atomic intelligence relations grew considerably closer. The primary intelligence targets at this time were to both predict and detect subsequent Soviet technological advances in the atomic sphere. For this latter aspect, the British were reliant upon the Anglo-American long-range-detection network, which had been introduced in the late 1940s. Though it had detected Joe-1 successfully, in the early 1950s it grew into a larger and far more substantial organisation. Intelligence collection was better in this period than in the earlier one, with good information provided on the locations of Soviet atomic-related plants and sites. Every stage of this period would be characterised by extremely close and amiable Anglo-American relations, exhibited in the long-range-detection programme and the related Operation Nomination, which aimed to assess Soviet amounts of plutonium.

Another characteristic of the 1950-54 period was the success of Soviet espionage in penetrating British and American political, scientific, and intelligence circles. Following in quick succession were the treacheries of Klaus Fuchs, Bruno Pontecorvo, Donald Maclean, Guy Burgess, and a host of other figures. Each of these men was involved, to a greater or lesser degree, in these fields; furthermore, in their different roles they were able to complement each other closely. The impact of these spies was considerable, yet British intelligence in particular was markedly slow to comprehend the level of Soviet penetration. Indeed, it was not until suspicions against Kim Philby were seriously contemplated in the mid-1950s that the British ever realistically considered the belief that the Soviets may have more, as yet undisclosed, spies.

In 1954, and again in mid-1955, the United States passed further revisions to the McMahon Act, which served to bring British and American atomic intelligence relations closer. An extensive review of the British atomic intelligence organisation in 1954 found that both its head, Eric Welsh, and its organisation as separate from the rest of scientific intelligence remained the ideal configuration. Both had been the source of constant criticism by successive directors of scientific intelligence, but the Daniel Report—as the review was known—gave overwhelming support for its continuation. At this time the atomic intelligence unit moved from the Ministry of Supply, where it had been housed since the war, to the Ministry of Defence. This was an important transfer because it moved atomic intelligence closer to the military strategists not only physically (in that they shared a building) but also in terms of the relationship between estimates and planning.

Throughout the final period, from 1954 to 1958, British atomic intelligence continued to move closer to its American cousins. Through the continuation of the long-range-detection network, coupled with the successor to Operation Nomination—the Music Programme—Anglo-American atomic intelligence was to become almost symbiotic: in effect a 'special relationship' within the broader, more commonly referred to special relationship. Relations improved once more with the detection of Sputnik in late 1957 and the realisation that the United States was more vulnerable to a Soviet strike than hitherto thought. In Britain, Sputnik and the advent of major missile programmes resulted in a further reorganisation of atomic intelligence, with the organisation moving into the Joint Intelligence Bureau and thus working side by side with the rest of scientific intelligence.

In 1958 three tumultuous events were to occur; the building blocks of each had the Anglo-American atomic intelligence partnership as a foundation. Firstly, in July an East-West conference was held in Geneva to discuss various monitoring methods necessary to police a possible nuclear test ban. Secondly, at the same time moves were made in the United States to terminate the McMahon Act and resurrect full technical partnership with the British. Finally,

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out in the Pacific, Britain exploded various thermonuclear devices. By 1958, therefore, Britain had joined the thermonuclear high table, full information exchange with the Americans had been restored, and discussions about a test ban had begun.

In 2000 Stephen Twigge and Len Scott wrote that 'any analysis of British [or indeed American] nuclear intelligence is as tentative as many of the estimates themselves at the time.' Despite such a sombre assessment, it has been possible to unearth a considerable amount of material on British and American atomic intelligence. Any study concerned with the affairs of government must start with an examination of the archival documents. Given the nature and scope of the subject, this process involved consulting papers in Britain, the United States, and Australia. In addition to national archives, it was also necessary to examine presidential archives and a vast number of collections of personal papers.

Archives, however, are merely the starting point of an effective research programme. With a resistant subject, for which material is still considered very secret because of both its atomic and intelligence nature, only a finite amount of material will be considered suitable for declassification. Similarly, in the affairs of government it is very difficult to ascertain a feeling of the time or of the personalities present from documents alone. Thus, just as important as archival research is locating and interviewing participants from the era.

This, of course, poses several problems: Firstly, many of the individuals involved would, by virtue of their positions, be senior figures in their respective departments. Hence, individuals who were active in British and American intelligence in a period beginning in 1945 would, by the twenty-first century, be of a venerable age; indeed, even those from 1958 are very senior in years. Despite such problems, communication through a variety of formats was absolutely essential to the progression of this work. Fortunately, many of the leading figures on both sides of the Atlantic, and indeed some further afield, were willing to contribute. In addition, whilst in some instances the persons in question had passed away, their children were prepared to offer access to their private papers, none of which had been utilised before. The quality and nature of these private collections varied considerably: The papers of Dr Bertie Blount, director of British scientific intelligence in the late 1940s and early 1950s, were very disappointing and revealed little; in contrast, the papers of Dr Wilfrid Mann, the atomic intelligence liaison with the United States in the late 1940s, were quite revelatory. The result of these endeavours offers a rejoinder to Twigge and Scott's assertion: Research of a comprehensive kind,

incorporating both archives and interviews, enables the researcher to reach firm conclusions in the realm of atomic intelligence.

If historiography is taken to be 'the study of the history of historical study,' then arguably, 'the historiography of a hotly disputed subject may be said to have begun when historians shift their attention from one set of questions to another.' The problem is that in cold war history, the changing patterns of interpretation, which take the form 'orthodox,' 'revisionist,' 'postrevisionist,' and so on, have often been preoccupied with the same questions of responsibility. These familiar schools of interpretation have only a marginal bearing upon the relatively new area of atomic intelligence.

Atomic issues were central to intelligence matters, and their prognoses often had a major influence upon cold war strategy or defence procurement. Until recently, we have only enjoyed detailed accounts of wartime atomic intelligence—specifically the various Alsos missions designed to recover information from a newly occupied Germany. Before the late 1990s, the only glimpses of postwar atomic intelligence were offered by actual participants. Accordingly, before the mid-1990s historians had to surmise the state of postwar atomic intelligence from one or two documents that had escaped the attentions of the declassification reviewers.

A number of recent books devote sections to atomic intelligence, and, in general, they all employ abundant new material, yet they are all lacking in one way or another. Peter Hennessy's *The Secret State* and Sir Percy Cradock's *Know Your Enemy* view the field of atomic intelligence solely from the perspective of the British Joint Intelligence Committee. Aldrich's *The Hidden Hand* and Twigge and Scott's *Planning Armageddon* use a more eclectic range of recently released materials from Britain and the United States. Aldrich's vast tome takes the perspective of Anglo-American intelligence, while Twigge and Scott's account examines the Anglo-American nuclear partnership. These two books complement each other in providing new material on Anglo-American cooperation and conflict during one of the 'hotter' periods of the cold war. At the same time, the amount of space they devote to the subject is inverse to its importance.

There is also a growing body of work about the US atomic intelligence programme. These accounts differ from the British ones primarily because of the nature of the postwar US intelligence community and in particular its notable decentralisation. It is possible, therefore, to evaluate the different strands of the intelligence community. For example, Aronsen concentrates solely on US Air Force intelligence, also providing a very one-dimensional account. Charles Ziegler and David Jacobson, in their pathbreaking account of

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the origins of the US nuclear-monitoring network, instead focus on the other agencies, in particular the CIA rather than the military. Perhaps the best information comes from CIA atomic intelligence analyst Henry Lowenhaupt, who, of all the authors, was the only one actively involved in atomic intelligence over a sustained period. 13

Attempting to deal with the historiography of a recently opened field is, by definition, paradoxical: While atomic intelligence was—for so long—top priority for Britain's and America's secret services, as yet only an insubstantial body of historical work exists. Work on British aspects of this subject has lagged far behind comparable work on American aspects, a circumstance that is thrown into dramatic relief when one considers that Lawrence Freedman's pathbreaking study, US Intelligence and the Soviet Strategic Threat, was first published in 1977. But even in the United States, where the theology of strategic estimates has been a mainstream subject for so many years, the real frontline business of atomic-intelligence gathering has remained remarkably low profile. Spying on the Nuclear Bear fills this void. Charting new territory, it revises traditional accounts of Anglo-American nuclear relations and intelligence cooperation.