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Nuclear Debates in France

David S. Yost

France has made significant adjustments in its defence policies since 1990–91 in view of the end of the Cold War. Decisions about some of the most important questions – in particular, regarding nuclear weapons – have, however, been postponed until after the presidential elections that are scheduled for May 1995. President François Mitterrand has made his recommendations clear, but it is uncertain – and, in some areas, doubtful – whether his successor will adopt them.

Questions that might seem at first glance to be technical or second-order issues – for instance, which delivery means should be procured and when, and whether further tests are required to develop adequate simulation capabilities – are in fact inseparable from fundamental and, at times, heated debates. The arguments concern the strategic and political purposes of France's nuclear arsenal, arms-control prospects and constraints, and the scope for cooperation and consensus on nuclear-weapons matters in Western Europe and the Atlantic Alliance. In some ways, it might be argued, the ultimate issue in the debates is the extent to which France can still pursue an autonomous course in its national strategic policy, in its alliances, and in negotiations about arms control.

This article discusses current policy and the main arguments over nuclear force posture, doctrine, arms control (including testing and proliferation) and cooperation with allies. In each of these areas, clear disagreements stand out. Some of the central differences in judgement concern the extent to which France should prepare for military operations that may include nuclear weapons. It would be incorrect to characterise the central differences as a division between 'war fighting' and 'deterrence' approaches to nuclear weapons. This old (and generally unilluminating) dichotomy does not apply because all the main participants in the current discussions in France favour deterrence and effective war-prevention. One of the core questions is what types of capabilities are most likely to convince an adversary of the genuine seriousness of France's resolve, and thus offer the best prospects for deterring aggression or coercion. Perhaps the least misleading way to describe the central differences over nuclear policy would be to call them disagreements

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over what measures are required for deterrence, with one approach oriented towards 'more operational' military capabilities and the other towards a 'less operational' force posture.¹

Broadly speaking, the 'more operational' approach – mainly associated with the Gaullists – emphasises the defence of French and allied interests through robust and flexible military capabilities - both offensive and defensive. This includes developing nuclear forces capable of being used, if necessary, with control and discrimination, particularly in confrontations with countries of the 'South' that may be armed with nuclear, chemical or biological weapons. To develop such forces, the 'more operational' approach holds, France must reject unreasonable constraints on nuclear testing. By this logic, a Comprehensive Test Ban Treaty (CTBT) would be unacceptable, especially in the near term when France has not yet developed adequate simulation capabilities, because a test ban would excessively hinder the maintenance and improvement of France's capabilities and would probably not prevent or even discourage proliferation. The International Atomic Energy Agency (IAEA), the 1968 nuclear Non-Proliferation Treaty (NPT) and other institutions and agreements devoted to non-proliferation are deemed worthy of support; but, it is argued, they are unlikely to be so successful as to allow France and its allies to forego active defences and means of selective intervention – nuclear and conventional.

In contrast, supporters of the 'less operational' approach – notably in the Socialist Party - have more confidence in traditional French nuclear deterrence policies (including principled opposition to strategic ballistic-missile defences and limited nuclear options) and in existing non-proliferation regimes. They place more emphasis on diplomatic efforts to achieve nonproliferation goals and to promote stable and predictable relations among the great powers, in view of the fluidity and potential volatility of the post-Soviet world. From this perspective, a CTBT and other measures, such as greater international supervision of transfers of fissile materials, could be useful if they contributed to the perpetuation and expanded authority of such entities as the United Nations (UN) Security Council, the Conference on Disarmament, the IAEA and the UN Special Commission in Iraq, with enhanced means of surveillance and enlarged powers of intervention. Such an approach might, it is argued, provide a framework that would legitimise the deterrent postures of France and the other recognised nuclear powers and discourage other states from seeking nuclear weapons.

Representatives of the 'more operational' approach include Jacques Chirac, the leader of the Gaullist Rassemblement pour la République (RPR), and other RPR politicians, such as Pierre Lellouche and Jacques Baumel. President François Mitterrand is the most prominent champion of a 'less operational' approach, and other examples include Socialist politicians, such as Jean-Michel Boucheron, and analysts, such as Pascal Boniface and Marisol Touraine, who served in high-level advisory positions in recent Socialist governments. Sources tend to attribute the 'more operational' approach to politicians and analysts in the Gaullist RPR and part of the

Union pour la Démocratie Française (UDF), some leaders of the military and defence-industrial establishments, and some officials in the Ministry of Defence, the Secrétariat Général de la Défense Nationale and the Commissariat à l'Énergie Atomique. A 'less operational' approach is ascribed to Socialist politicians and analysts and part of the UDF, and to some officials in the Foreign Ministry and the Elysée Palace.

Such generalisations should be treated with caution, however, and the views of individuals often defy categorisations based on bureaucratic roles or party affiliations. For example, Admiral Jacques Lanxade, the Chief of Staff of the Armed Forces, has expressed reservations about strategic ballistic-missile defences and proposals for more 'usable' nuclear weapons that are similar to those put forward by Pascal Boniface (indeed, Lanxade even cites Boniface on the latter point); but Lanxade's published views seem more favourable to a resumption of nuclear testing than those of Boniface.²

Similarly, it is evident that some in the Gaullist RPR have reservations about a 'more operational' approach that might imply a greater readiness to use nuclear weapons in combat and that would thus deviate from the traditional principles, such as 'non-war' (non-guerre), on which the national consensus in support of nuclear deterrence has been based. Moreover, individuals who generally favour a 'more operational' approach differ about how much relative importance to attach to military responses, such as active defences, and to diplomatic efforts, such as the NPT and other arms-control measures, to curb proliferation. Conversely, some opponents of more 'usable' nuclear weapons support the development of air and missile defences so long as a 'North versus South' presentation is avoided and improvements in Russian strategic defences are not legitimised or encouraged.

Some French observers have argued that, beyond the relatively centrist 'more operational' and 'less operational' approaches to deterrence, two minority schools of thought imply the 'death of deterrence' – la mort de la dissuasion. One such school favours a CTBT as a key step towards nuclear and then general and complete disarmament (an attitude discerned in some Socialists, among others). Another school supports the development of more 'usable' nuclear weapons not merely to enhance the credibility of deterrent threats, but in order to be ready to engage in nuclear operations, on the grounds that the taboo against nuclear weapons use will probably be broken eventually and may not be promptly restored (a view attributed to some Gaullists and some members of the defence—industrial and military—technical establishment). The former school is dismissed by the mainstream 'more operational' and 'less operational' tendencies as naive and irrelevant, while the latter has been widely castigated for confusing deterrence preparations with operational employment intentions.

Some politicians, officials and analysts have been accused by others of concealing an interest in actually conducting nuclear strikes. Some of those so accused have hotly resented and vigorously rejected such characterisations of their positions. In their view, diversifying France's nuclear arsenal forms part of the necessary response to the evolving and foreseeable threat

environment; and it is analytically misleading and politically demagogic to equate an interest in acquiring weapons of lower yields and greater accuracy, which might offer options for more discrimination and flexibility and thus bolster deterrence, with an endorsement of a doctrine calling for actual operational employment. Unfortunately, some statements have lent themselves to misunderstanding or deliberate distortion, since it has been hard to tell whether some proposals for new capabilities and/or doctrinal revisions have been meant to guide action policy or solely to influence the decision-making of possible foreign adversaries.³

The debates underway have therefore been rather disjointed. French politicians and commentators have taken individual positions and made subtle distinctions as they have seen fit, influenced at times by internal political struggles, with no interest in conforming to rigid intellectual schemas. Despite the risk of over-simplifying or caricaturing complex differences in outlook, there may be some heuristic value in distinguishing between 'more operational' and 'less operational' approaches.

Force Posture

In decisions comparable to those in the United Kingdom and the United States, France has reduced nuclear-weapons-related spending and cut back forces and alert levels since 1990-91. Previously envisaged nuclear force improvements have also been delayed and cut back, partly in order to help finance the post-Gulf War priorities of improved strategic mobility and command, control, communications and intelligence (C3I) for crisis intervention purposes. The remaining force consists of 18 S-3 intermediate-range ballistic missiles (IRBMs) on the plateau d'Albion; five nuclear-fuelled ballistic-missile submarines (SSBNs) that will be replaced by four newgeneration boats, the first (Le Triomphant) to be operational in 1995 or 1996. with the new M-45 submarine-launched ballistic missile (SLBM); airsol moyenne portée (ASMP) air-to-surface missiles that are nuclear-armed and can be launched from several types of aircraft, when these aircraft have been appropriately configured and nuclear-certified (Mirage 2000Ds, Mirage IVPs, Mirage 2000Ns, Super-Étendards and, prospectively, Rafales); and 30 Hades short-range missiles in storage for possible reconstitution.

According to the programme law for 1995–2000, approved in June 1994, 'the world situation does not justify the immediate improvement of the technical performance' capabilities of the French nuclear forces. 'The specific characteristics of future [nuclear] weapons, destined to replace the current generation, will be defined after studies on [test] simulations, and in 1997 at the latest, when the law is reviewed'. In the meantime, the programme for four new-generation SSBNs with M-45 SLBMs is to be continued; preparations are to be made for the possible replacement in 2005 of the S-3 IRBMs, with M-4 SLBMs placed in the S-3 silos; work is to continue on the M-5 SLBM, now scheduled for possible deployment in 2010; and studies are to continue for a successor to the ASMP stand-off missile, 'taking into account the evolution of threats and missile defences'.⁴

President Mitterrand has attached considerable importance to the timely development of the M-5 SLBM, partly so that it might eventually be deployed in silos on the plateau d'Albion as a replacement for the S-3s; in early 1994, however, he agreed that in the interim the M-4 or M-45 could replace the S-3s. Mitterrand has seen no urgent need for research and development for a more accurate and longer-range air-launched missile. In contrast, Defence Minister François Léotard and part of the military-technical establishment have argued for delaying the M-5 SLBM's development and have expressed doubt about the wisdom of deploying it in a ground-based mode. In their view, this deployment concept should be abandoned and the M-5's development should be stretched out to help to finance the development of a longer-range stand-off missile for precision attacks, which could be either a subsonic stealthy cruise missile, derived from Matra's Apache family, or a supersonic air-to-ground ballistic missile, derived from Aérospatiale's ASMP and sometimes called the air-sol longue portée (ASLP). Only a conventional-warhead arme de précision tirée à grande distance is planned for procurement in the 1995–2000 defence programme, and the government might choose to pursue both of these types of missiles. Either could serve as a nuclear delivery system, but a highly-accurate, subsonic, low-altitude, high-payload stealthy missile could have certain operational and cost advantages, particularly for conventional operations involving a large number of strikes.5

Of all Mitterrand's policy choices, his support for deploying SLBMs, such as the M-4, M-45 or M-5, in silos on the plateau d'Albion is perhaps the least likely to withstand future pressures. Mitterrand's support for this course appears to be based on satisfaction with the reliability of continuous communications with the IRBM force (in contrast with the SSBNs) and an apparent calculation that it would inhibit funding for a new air-launched missile that could be used as a nuclear delivery system (and that would be more accurate, flexible and 'usable' than the IRBMs). Mitterrand has argued that silo-based missiles strengthen deterrence because an enemy's attack against them would furnish proof of aggressive intentions and provoke prompt retaliation by the SSBNs, and he has implicitly rejected the counterargument that the IRBMs, as fixed lucrative targets, are destabilising. Xavier de Villepin (the Chairman of the Senate Committee on Foreign Affairs, Defence and the Armed Forces) recently observed correctly, however, that 'the great majority of experts judge the abandonment of one component [of France's triad of SSBNs, IRBMs and aircraft] as predictable, even financially inevitable'. For these experts, the hypothesis of deploying SLBM missiles in silos seems 'doctrinally unconvincing, militarily vulnerable, technically delicate, and financially costly'.6

The debate about the relative urgency of developing more accurate airlaunched missiles forms part of the discussion about possible new nuclear warheads. In August 1993, General Vincent Lanata, then the Chief of Staff of the Air Force, called for variable-yield warheads for a new missile of 'great accuracy'. In his view, an air-launched missile would offer several advantages over IRBMs – above all, a non-ballistic mode of penetrating enemy defences, and much sharper accuracy and flexibility. The latter judgement is widely shared in the military-technical establishment and the RPR-UDF majority.⁷

Whether France should develop nuclear weapons with lower yields, variable yields and confined effects is, however, the most contentious issue on force posture. Some define the issue as how to carry out 'surgical' or 'decapitating' strikes against 'dangerous installations, or even simply the bunker of a dictator, while causing a minimum of suffering to civilian populations'. Some of the French have advocated building low-yield nuclear weapons – including earth-penetrators able to reach hardened and buried command bunkers – that could be delivered with greater accuracy, flexibility and discrimination than France's current weapons to reinforce deterrence with a credible, yet non-verbal, message about France's capabilities. (Some proponents of such capabilities contend that explicitly articulating a doctrine for the possible employment of such 'usable' weapons is unnecessary and could be counter-productive.)

It is argued that relatively high-yield and inaccurate weapons were adequate for the 'anti-cities' nuclear posture that France developed to deter Soviet aggression, but that such forces and threats cannot be credible for contemporary deterrence requirements (or acceptable to French and international opinion) unless the threat to France is potentially mortal. The counterargument from adherents of the 'less operational' school of nuclear deterrence is simple: if France could conduct high-accuracy attacks, why not prepare to do so with conventional weapons and reserve nuclear weapons as the truly ultimate recourse for protecting the nation's vital interests? The 'more operational' response is that threatening – and/or carrying out – such conventional attacks might not be sufficient to deter the use of weapons of mass destruction, and that France cannot, at any rate, afford to acquire conventional systems in great quantities. Force-posture arguments influence doctrinal choices, and vice versa.

Doctrine

Doctrine on deterrence and force employment has been made less explicit about specific threats and operational scenarios. Rather than referring directly to Moscow as the threat justifying the nuclear deterrent or dwelling on euphemistic abstract theories, such as la dissuasion du faible au fort (deterrence by the weak of the strong), the French have returned to Gaullist formulas of the 1960s – asserting that France has no 'designated enemy' and that its deterrent has a tous azimuts (all the points of the compass) orientation. It has nonetheless been apparent from official statements that the former Soviet arsenal continues to serve as a primary justification for France's nuclear deterrent. As Prime Minister Pierre Bérégovoy said in 1992, 'as long as there continues to exist, despite the progress in East-West negotiations, an [ex-Soviet] arsenal henceforth divided between a greater

number of powers, France must assure the credibility of this ultimate guarantee'.9

Although there is no plausible Russian threat in the 'foreseeable present' (as some French strategists put it), Russia's massive military potential and uncertain future justify French precautions. Various events – for instance, a return to dictatorship in Moscow, a civil war in Russia, a Russian–Ukrainian conflict or a possible future Russian attempt to recapture a position of dominance in East–Central Europe – might bring nuclear deterrence back to centre-stage in Europe. The February 1994 Defence White Paper raises the possibility that in the next 20 years a new threat of major aggression against Western Europe could emerge 'from a state or coalition of states with large nuclear and conventional forces'. If such a threat emerged, its military capabilities would include the 'means for selective or massive nuclear strikes, high-technology conventional forces, and means of internal subversion'. France must therefore maintain nuclear and C3I capabilities that are suitable for dealing with 'the possibility of the reappearance of a large threat comparable to that which the Soviet Union presented'. 10

French nuclear forces have also been described as an important element in the military balance in Europe. The balance seems to remain an East-West one in French conceptions (that is, the North Atlantic Treaty Organisation (NATO) and friendly countries in East-Central Europe versus Russia and potential Russian allies among the successor states of the USSR), because of Russia's enormous military potential. Russian actions in the 'near abroad' have been widely interpreted in France as evidence of a will in Moscow to reconstitute a large part of the Soviet empire. Aside from Russia's uncertain prospects for democratisation, it is widely agreed that French forces help to prevent Western Europe from falling under Russia's political-military shadow and contribute to the maintenance of balanced relations with Moscow. French expert observers continue to express concern about the immense quantities of nuclear weapons and fissile materials in the former Soviet Union and uncertainty about the adequacy of US and other Western means of verifying that the Russians are honouring their promises with regard to tactical as well as strategic weapons.

Although some French officials and experts have underscored the advantages of doctrinal discretion (for example, retaining flexibility and reducing the risk of becoming the prisoner of phrases subject to political obsolescence), a vigorous debate is underway about employment doctrine. The long-standing doctrine – 'pre-strategic' or 'final warning' (ultime avertissement) nuclear strikes against military targets prior to major strategic retaliation – seems to remain valid in relation to the potential emergence of a new Russian threat. The possible use of nuclear weapons in deterrence or combat operations outside Europe has, however, become a controversial issue.

In February 1991, Mitterrand ruled out any use of nuclear weapons in response to an Iraqi use of chemical weapons as a 'retreat towards barbarism' that would, moreover, be unnecessary given the coalition's conventional superiority. Foreign Minister Roland Dumas added that 'nuclear

weapons cannot be battlefield weapons, and cannot be used except as the ultimate recourse when the national territory is threatened'. In mid-1992, however, Defence Minister Pierre Joxe raised the possibility of a 'resurgence of the former threat, against which our deterrent is well organised' and contrasted it with the potential emergence of 'a new threat for which we would be much less prepared'. In view of these uncertainties and the need for adaptability, Joxe added, it will be necessary 'to correct programmes which were started in the context of a single threat from the East... In addition to having arms capable of massive distant strikes against predetermined targets, we should perhaps develop more flexible weapons systems that promote deterrence more through the precision with which they strike than through the threat of a general nuclear exchange'. 12

Additional official statements of this sort in 1992 were remarkable because previous attempts to develop more flexible employment options and a corresponding doctrine (for instance, during the 1986–88 cohabitation) were promptly rejected. It was argued that planning for such options would undermine deterrence and the domestic political legitimacy of the nuclear forces by implying that the principles of 'no war' (non-guerre) and 'no battle' (non-bataille) could be overturned by aggression. The long-standing French doctrine has been that nuclear forces are 'weapons of non-use' (armes de non-emploi), and this has been upheld consistently.

Some prominent officials, civil and military, have recently advocated more flexible and limited nuclear employment options. For example, in early 1993, shortly before his appointment as the head of the Defence Ministry's Délégation Générale pour l'Armement, Henri Conze wrote that the concept of 'anti-cities' strikes must be changed in the pursuit of greater selectivity and discrimination, partly because it is increasingly unacceptable to public opinion. 13 In August 1993, Colonel Henry de Roquefeuil of the Forces Aériennes Stratégiques argued that France should complement its traditional capabilities and doctrine for deterring Soviet coercion or aggression (la dissuasion du faible au fort) with an approach calculated to deter mischief by a regional power armed with a few nuclear devices - la dissuasion du fort au faible (deterrence by the strong of the weak). 'By this logic, the head of state could choose to demonstrate his determination with a final warning strike by a small number of Mirage 2000Ns. For such a mission, a missile with a warhead of some kilotons would be sufficient and easier to use; even a limited strike would render credible the multi-megaton threat of our strategic forces. On the other hand, this would mean abandoning the concept of weapons of non-use [armes de non-emploi]'.14

Similarly, in November 1993, Jacques Baumel, a Gaullist Vice-Chairman of the National Assembly's Committee on National Defence and the Armed Forces, called for a 'dual deterrent', consisting of SSBNs capable of anticities strikes and highly accurate long-range missiles that could be launched from aircraft or surface ships. The latter would enable France to adopt a doctrine based on 'more selective capabilities, directed against specific military forces or sensitive installations'. Accuracy, lower yields, confined

effects, earth-penetrating capabilities and other measures to limit collateral damage could enable France to threaten 'surgical strikes against potential adversaries' that might not respect 'the established rules of rationality'.¹⁵

Baumel's reference to the uncertain rationality of prospective adversaries suggests, perhaps unfairly, a link to the widely-repeated phrase la dissuasion du fort au fou (deterrence by the strong of the insane). As some French observers have pointed out, the phrase is strategic nonsense, because the irrational are by definition incapable of making a sound assessment of risks. The formulation has nothing to recommend it except alliteration in French. It inhibits analysis of the real issues in dealing with regional powers that may try to use a few nuclear weapons to block outside interference with their plans for aggression and/or the acquisition of additional military assets, including more weapons of mass destruction, and to protect gains made through conquest – what some French analysts have called sanctuarisation aggressive. The French have not yet succeeded, any more than the United States and other Western countries, in defining more than preliminary guidelines for strategies to deter such behaviour and for taking action, if necessary. For some, the true underlying issue in the phrase la dissuasion du fort au fou is not deterring 'insane' adversaries armed with weapons of mass destruction, but pre-emptively destroying their capabilities (or neutralising them in other ways) if deterrent threats seem likely to fail or have virtually failed. In such circumstances, French analysts have argued, conventional means (and preferably those of a coalition including the United States) would obviously be favoured for actual operations. 16

Support for a 'more operational' approach to nuclear deterrence and employment policies appears to have declined since late 1993, when government officials began to rule it out emphatically. In November 1993, for example, Defence Minister François Léotard said that France would retain its 'doctrine of non-use' despite advocates for change. As Léotard put it, seeking low-yield weapons for limited strikes could lead to 'a sort of banalisation of nuclear weapons', which would be 'a profound error'; and it would be wiser and entirely feasible to obtain non-nuclear weapons capable of long-range precision attacks for the requirements in question.¹⁷ In a comparable statement in May 1994, Mitterrand condemned proposals for 'surgical' or 'decapitating' strike capabilities as 'a major heresy' and inconsistent with the traditional doctrine that nuclear weapons are for the protection of France's vital interests and not for use in limited conflicts. As before. Mitterrand insisted that conventional weapons 'could suffice' to deal with such challenges. In September 1994, Prime Minister Balladur called attention to 'the variety of situations' in which nuclear deterrence might play a role, not excluding 'a crisis far from our soil', but emphasised that 'we refuse to envisage any drift towards what is called an "employment strategy" for nuclear weapons or towards the notion of nuclear weapons for battle'.18

Arms Control

In June 1991, the French government announced that it would sign the NPT, and the adherence process was completed in August 1992. This represented a notable change in France's diplomatic and political approach, but not in France's action policy. In September 1991, the Foreign Minister announced that France would begin applying the principle of comprehensive or 'full scope' (contrôle intégral) safeguards to the future export of equipment, technology and materials linked to nuclear energy. This constituted a substantial change in action policy. Moreover, in contrast with France's previous reservations about being closely associated with the NPT, it was announced in August 1992 that 'France firmly intends to work, in cooperation with its partners, for the universality of the treaty and for its extension in 1995 for an indefinite duration, and to achieve the greatest possible international consensus regarding nuclear non-proliferation'. 19

The NPT Extension Conference in April–May 1995 is not in itself a subject of controversy in France. Virtually everyone supports the Treaty's indefinite extension, although most are aware of the continuing uncertainties about the effectiveness of the NPT/IAEA regime. The controversy concerns the political linkage that has emerged between the NPT Extension Conference and the negotiations for a CTBT and, more broadly, the future of French nuclear test programmes.

In April 1992, Prime Minister Pierre Bérégovoy announced President Mitterrand's decision to suspend nuclear tests, at least until the end of 1992. The purpose of the moratorium, Bérégovoy said, was to help stop 'overarmament [surarmement] and above all the accumulation without end of atomic weapons'. This moratorium was extended in 1993, in light of US and Russian decisions to abstain from testing. In response to US President Bill Clinton's July 1993 decision to extend the US moratorium on nuclear testing until September 1994 and to seek a CTBT, the Elysée Palace announced that France favours a CTBT on condition that it be 'universal and verifiable'. In the Indiana serial properties of the serial properties and verifiable'. In the Indiana serial properties and verifiable'. In the Indiana serial properties and verifiable'. In the Indiana serial properties are serial properties and verifiable'. In the Indiana serial properties are serial properties and verifiable'. In the Indiana serial properties are serial properties and verifiable'. In the Indiana serial properties are serial properties and the Indiana serial properties are serial properties. In the Indiana serial properties are serial properties and the Indiana serial properties are serial properties. In the Indiana serial properties are serial properties and the Indiana serial properties are serial properties. In the Indiana serial properties are serial properties and the Indiana serial properties are serial properties. In the Indiana serial properties are serial properties and the Indiana serial properties are serial properties are serial properties and the Indiana serial properties are ser

The Chinese nuclear test on 5 October 1993 led the Elysée Palace and Prime Minister Balladur's office to issue a joint communiqué confirming both France's technical readiness to resume testing, if necessary, and its interest in arms control and in simulation capabilities that might substitute for nuclear tests and thereby assure the continued credibility of France's deterrent force. President Mitterrand said that 'France will not give the signal' for a resumption of nuclear tests, but that 'of course, if countries other than China took the initiative, France would be constrained to assure what is called the "threshold of sufficiency" for its defence, to pursue its own tests'. ²² Mitterrand has repeatedly made it clear that, in the absence of US or Russian testing, France will not resume testing while he is President. ²³ He has, furthermore, predicted that his successor will follow the same policy, and has ordered France's nuclear weapons establishment to develop simulation capabilities without any further tests. ²⁴

The probable French conditions for accepting a CTBT have become apparent since the formal negotiations opened in January 1994:

- A test ban would, the French argue, only make sense in the context of a stable non-proliferation regime, with the NPT's indefinite and unconditional extension in 1995. Reversing the linkage that some have made between the CTBT and the NPT (that is, seeing commitments by the recognised nuclear-weapon states to a CTBT as a condition for NPT extension), Prime Minister Balladur in May 1994 said that 'the decision made about the NPT in May 1995 will have an effect on the conduct of the CTBT negotiation . . . a failure to extend the NPT could place into question our commitment in favour of a treaty banning tests'. 25
- Unless the NPT/IAEA regime is effectively enforced in North Korea, Iraq and elsewhere, extending the NPT and concluding a CTBT would accomplish little.
- The Conference on Disarmament must be enlarged to make it 'representative and legitimate'. This enlargement must encompass all the 'threshold' states those suspected of having an inclination and capability to develop nuclear weapons and all must become parties to the CTBT.²⁶ This will probably at a minimum be France's interpretation of 'universal' adherence prior to the Treaty's entry into force.
- The CTBT must be enforced with an effective verification regime (to be defined as negotiations proceed).
- There must be an acceptable definition of 'permitted' or 'Treaty-compliant' activities, including reasonable ceilings for energy yields in weapons-related experiments. Indeed, some French experts maintain that the CTBT regime should allow for a 'confidence test' every five years to ensure the credibility and safety of the nuclear weapons maintained for deterrence, and that even this would entail significant technical risks. Moreover, some French observers have suggested that a CTBT might prudently be limited to a duration of ten years, at which point its merits and drawbacks could be assessed at a review conference.

Some observers have hypothesised that a further condition might be technical assistance from the United States for simulations – data and equipment (such as high-powered lasers and computers) – and, preferably, closer technical cooperation with the United States and the United Kingdom regarding simulations and other nuclear matters. It should be noted, however, that a substantial part of the French political-military and technical elite appears to fear that such cooperation could lead to France being 'Britainised' (britannisé) – that is, drawn into a condition of technical dependence on the United States. Although France could benefit from US assistance in simulations, it is argued, France needs to validate its own methods and calculations through at least a limited number of its own experiments over a short period of time, as a hedge against potential difficul-

ties in the implementation of any US-French agreement. Moreover, the CTBT verification challenge has also been seen by some as a source of concern, given the risk that France's own national technical means might be insufficient and that France might become partially dependent on US verification capabilities and, hence, on US choices about what information to make known to France and others.²⁷

The test moratorium and the growing political pressures for a CTBT, especially from the United States, have led some French observers in technical and political-military circles to develop theories about US motives. The official US line that a CTBT will help to prevent proliferation is widely discounted because it is known that first-generation nuclear weapons can be built without any tests. Alternative French theories about why the United States is pushing for a CTBT have therefore been advanced. Some of the French hypothesise that the real US goal must be to capitalise on US conventional force superiority and to inhibit efforts by other countries to develop more advanced nuclear weapons. In other words, such theories speculate that the United States may be exploiting the non-proliferation theme to consolidate its position as the strongest power in the world; a CTBT would hamper France, China, Russia and others in developing more sophisticated nuclear arsenals and thus inhibit the emergence of rival power centres. This approach would have the added benefit, some argue, of making France and other US allies more dependent on US security guarantees and technology. Some also argue that the United States may intend to conduct secret, undetectable low-yield tests. They note that the US Department of Energy recently acknowledged having conducted 252 secret tests.²⁸

It is, at any rate, a commonplace in French discussions that US motives are hardly disinterested and that a CTBT would constrain French options far more than those of the United States. Many of the French contend that, owing to the lessons learned during the 1958-61 moratorium and the policies implemented after that experience, the United States is ahead of France and, indeed, all other countries in preparations for maintaining its nuclear forces under a no-test regime – either another prolonged moratorium or a formal treaty ban. Despite the enthusiasm of Mitterrand and some other Socialist politicians and security affairs analysts, the predominant view in the RPR-UDF majority and in the military-technical community is one of reluctance about being rushed into a CTBT. Many resent the impression that some Americans have conveyed of hastening to conclude a CTBT before Mitterrand leaves office in May 1995. Some French observers have expressed confidence that France will find enough like-minded participants in the Geneva deliberations to prevent the imposition of undesirable deadlines. As concluding a CTBT before the NPT Extension Conference in April-May 1995 has come to seem less feasible, the inclination on the part of some US officials to pressure France on this topic has declined and it has become less significant as a source of US-French discord.²⁹

Personal attacks and innuendos have marked the arguments over the CTBT and a possible resumption of French testing. Mitterrand has been

accused of initiating the moratorium in April 1992 for reasons of domestic politics (to heighten the appeal of the Socialists for the ecologists) and of continuing it in the hope of winning the next Nobel Peace Prize.³⁰ Gaullists such as Michel Debré have argued that Mitterrand is undermining France's national independence and accepting subordination to the United States.³¹ Mitterrand has implied, in predicting that his successor will not resume nuclear tests, that any further testing would be comparable to starting a nuclear war: 'France will not wish to offend the entire world by resuming nuclear over-armament, by hurting all the countries without nuclear weapons, by holding up to ridicule the countries of the Third World and all the poor countries . . . France will not, moreover, wish to be the country that resumes atomic warfare'.³²

RPR and UDF politicians and members of the military-technical elite resent critical formulations that imply that they are not interested in deterrence and war-prevention, but in using nuclear weapons. This accusation has been made repeatedly by Pascal Boniface and others who favour a 'less operational' nuclear deterrent posture. In Boniface's view, one of the advantages of halting tests would be preventing the development of more 'usable' nuclear weapons.³³

The mainstream view of the RPR-UDF majority was summed up in a December 1993 National Assembly committee report. The report concluded that it is 'indisputable' that France must conduct approximately 20 more tests: about 10 tests for two modernisation programmes (a variable-yield warhead for a longer-range air-launched missile and the new TN 100 warhead for the M5 SLBM) and about ten tests to calibrate simulation capabilities. Most of the tests for the latter purpose could be postponed until after 1995, the report indicated, given current constraints – for instance, the time it will take to procure new computers, radiographic equipment and lasers for simulations. The report also noted that the PALEN (*Préparation à la Limitation des Essais Nucléaires*) programme for simulations at the *Commissariat à l'Énergie Atomique* was originally conceived in 1991 as a means of coping with further limits on testing, owing in part to budgetary constraints, and not as a means of foregoing tests entirely.³⁴

French investments in research on simulation capabilities have been substantially increased since 1992, but some French technical experts have expressed doubts as to whether 10, 20 or 50 tests or more would be enough to devise simulation means capable of eliminating any need for testing, especially during a test ban lasting longer than a decade. Despite the rumours that the December 1993 report called for only around 20 more tests because the capacity of the test site to absorb more tests is doubtful, authoritative sources indicate that it remains technically feasible to conduct far more than 20 tests at Mururoa and Fangataufa in the South Pacific. The capacity of the test site is in part a function of the blast yield of the devices exploded; a large number of low-yield tests could therefore be conducted.³⁵

Defence Minister Léotard has told members of the National Assembly that France could develop simulation capabilities comparable to those of the United States in nine or ten years, that this will require further tests, and that Paris will not adhere to a CTBT until France has mastered such simulation capabilities.³⁶ Prime Minister Balladur has noted, moreover, that France has never agreed to link its test moratorium to the CTBT negotiations: 'A possible resumption of tests as a function of the international situation and the behaviour of the other nuclear powers and our participation in the negotiations are therefore not at all incompatible'.³⁷ Some French observers have nonetheless expressed concern that potent political factors may overwhelm the reservations and conditions that the government has articulated about accepting an extension of the test moratorium and a CTBT.

Cooperation with Allies

Several French officials have suggested since 1989 that a mechanism should be found (perhaps a European nuclear consultation arrangement) that would affirm the strategic solidarity of the United Kingdom, France and Germany. For example, in July 1990, when he was the Defence Minister, Jean-Pierre Chevènement suggested that a Western European defence partnership offering nuclear protection to Germany was the only option, given the alternatives. 'An American protection that risks seeming more and more uncertain? Or Germany's choice to assure her security by herself?' In January 1992, Mitterrand raised the possibility of devising a 'European doctrine' within the European Community for the French and British nuclear forces. 39

Although several similar statements were made in 1992 and an Anglo-French Joint Commission on Nuclear Policy and Doctrine was established in 1992-93. French interest in establishing a Western European nuclear consultation arrangement has been tempered by events. It is still often argued that France's deterrent posture helps to stabilise the overall security situation in Europe by imposing caution and restraint on potential adversaries. Furthermore, the February 1994 Defence White Paper declared that 'the problem of a European nuclear doctrine is bound to become one of the major questions in the construction of a common European defence. The pertinence of the issue will become more evident as the European Union builds its political identity as well as its security and defence identity. Such a prospect remains distant, but must not be lost from sight. With nuclear capabilities, in fact, Europe's defence autonomy is possible. Without them, it is out of the question'. On the other hand, the Defence White Paper continued, 'there will, however, be no European nuclear doctrine or European deterrent until there are European vital interests, considered as such by the Europeans and so understood by others. In the meantime, France does not intend to dilute its means of national defence in such a domain under any pretext'.40

The interest that Mitterrand expressed in a European nuclear doctrine at the beginning of 1992 has evidently cooled as well. In May 1994, Mitterrand raised the question of whether French nuclear capabilities would someday be able 'to guarantee the integrity and security' of the countries of the European Union, and placed his answer in a rather long-term perspective. Satisfying

the necessary conditions, including unity of political and strategic command and clear agreement on shared vital interests, would require 'immense efforts and progress', he said. Indeed, he estimated that building such a united Europe would require 'a century and perhaps two centuries'. In the same speech, Mitterrand emphasised that nuclear decision-making cannot be shared and that the primary purpose of France's nuclear forces is protecting 'the integrity of the national territory', even though 'other vital interests' may require a broader definition of purpose.⁴¹

Cooperation with Western European allies about nuclear-weapons matters has been a secondary topic of contention in comparison with the major arguments about force posture, doctrine and testing. Indeed, this issue has often served as a source of debating points in the main arguments. Some supporters of what is here termed a 'more operational' posture have championed Western European and NATO projects to build active defences against missiles and aircraft, as well as Western European cooperation regarding nuclear forces and a possible multilateral nuclear consultation forum. It has been suggested that non-nuclear Western European countries could be 'protected by a European nuclear umbrella or by a French one at the service of Europe' and could participate by accepting deployments of French aircraft equipped with new nuclear-armed air-launched missiles. 'This would bring our delivery vehicles closer to their potential targets'.⁴²

In contrast, champions of a more traditional and 'less operational' nuclear-weapons posture note that France's non-nuclear allies in Western Europe, such as Germany, Spain and Italy, have expressed no interest in such deployments, and formal French proposals to this effect might well be divisive and subject to misinterpretation. From this perspective, the goal of Western European cooperation in nuclear weapons matters can only be successfully pursued if France adheres to its traditional approach to nuclear deterrence and hypothetical force employment and rejects proposals to build more flexible, discriminate and usable nuclear forces. According to Boniface, 'there is a fundamental contradiction between the perspective of a Europeanisation of the French nuclear forces and the risk of sliding towards a nuclear policy that would no longer be solely deterrent. Our European partners will not follow us towards concepts of employment of nuclear weapons that we ourselves always rejected in the past'. 44

Cooperation regarding nuclear weapons under Atlantic Alliance auspices has remained a rather sensitive issue in France, owing in part to the tenacious myth, still robust after it first emerged in the mid-1960s, that participation in NATO's integrated military structure or Nuclear Planning Group would represent subordination to the United States. Despite the reservations that France expressed about certain nuclear issues when it approved NATO's November 1991 Strategic Concept, the remaining doctrinal differences between France and its NATO allies regarding nuclear-weapons matters appear to be relatively minor.

Indeed, in implementing the decision at the January 1994 NATO summit 'to intensify and expand' the Alliance's efforts against the proliferation of

weapons of mass destruction, the Alliance has established a Defence Group on Proliferation that is co-chaired by the United States (represented by Assistant Secretary of Defense Ashton Carter) and France (represented by the Director of the French Defence Ministry's Délégation aux Affaires Stratégiques, Jean-Claude Mallet). While the European co-chair of this body will rotate to other countries, it is significant that France agreed to be the first to serve in this role. Moreover, bilateral cooperation between France and the United States in some nuclear weapons-relevant areas has improved. In 1993, for example, the US Air Combat Command and the Forces Aériennes Stratégiques for the first time conducted joint exercises, which included mutual refuelling of B-1Bs and Mirage IVPs in Kansas and France.⁴⁵

Intra-Alliance Differences

The most contentious issues in recent years have not involved NATO as much as disagreements between major allies about basic strategic policy concepts. An absence of transatlantic consensus has been apparent, for example, in French interpretations of the implications of some recent and current US policies on nuclear weapons. During the Bush administration, high-level French officials repeatedly deplored signs of US interest in 'conventional deterrence', a senseless and imprudent phrase in the eyes of many French observers. The February 1994 Defence White Paper defined the concept and explained that it is:

based on the idea that certain sophisticated conventional technologies can confer radical superiority and allow for extreme reductions or even an elimination of the role of nuclear forces in defence. It is illusory and dangerous to claim that such technologies could have the effect of preventing war as nuclear weapons do. All the lessons of history argue against it. These conceptions emphasise conventional force balances, which are by nature unstable and based on operational strategies, for preparing and conducting war. They suggest the possibility of resolving international problems through the use of force and imply an arms race. They are not compatible with our strategy. Far from substituting for nuclear deterrence, a so-called conventional deterrent could only complement it... Moreover, nuclear weapons remain the means to compensate, if necessary, for possible insufficiencies in other areas, and allow for an avoidance of a 'conventional arms race' that would be contrary to our defence policy and unacceptable from a financial viewpoint.⁴⁷

Since the beginning of the Clinton administration, French officials have taken note of publications by Les Aspin, William Perry, Ashton Carter and others and have discerned signs of a US interest in delegitimising and marginalising nuclear weapons and in taking steps to reduce their importance in international politics.⁴⁸ Such approaches are substantially at variance with those favoured by many in the French political class and military—

technical community. Most of the French reject any questioning of the legitimacy of nuclear deterrence. The French are probably more sensitive regarding this issue than a number of other nations. As some French observers have pointed out, nuclear weapons are more important to France, and not only psychologically and symbolically, than they are to the United States and some other countries, which have differing geopolitical interests and security assets and instruments. These observers attribute the current interest of some US officials and experts in marginalising nuclear deterrence to the privileged geographical position of the United States and its conventional force advantages, which could be reinforced if Washington could use non-proliferation themes to impose a CTBT and hinder the nuclear-weapons programmes of other powers.

France has made relatively large investments in nuclear forces since the late 1950s, and for many in France certain ideas and convictions have become closely interwoven. Nuclear weapons have become associated with national independence and security against another world war and, more broadly, with General Charles de Gaulle's successful efforts to restore France's honour and international status. Nuclear weapons are deemed an insurance policy in an uncertain and unstable world and a guarantee of France's political and strategic autonomy. Despite intermittent and apparently growing concerns about nuclear-reactor safety and nuclear wastedisposal problems, and aside from some of the minor political parties, the consensus behind nuclear deterrence in France remains remarkably robust particularly in a comparative perspective. According to some French observers, France's support for nuclear deterrence is 'irreversible' in the foreseeable future; and France's resistance to the 'denuclearisation' logic is so profound that, if that logic won widespread support, France would be the last to abandon nuclear deterrence.49

One of the recent French concerns about US policy has been that the United States might announce a no-first-use pledge in the hope that such a pledge (and perhaps an international convention to that effect) would lessen the role of nuclear weapons in international politics and promote nonproliferation goals. French observers maintain that such a policy could have damaging effects on the cohesion of US alliances and on the credibility of US extended deterrence commitments and associated non-proliferation arrangements, but nonetheless might be portrayed in short-sighted analyses as advantageous for the United States in view of US conventional force superiority. Many French observers hold that such analyses are not conceivable for France (or for the United Kingdom, for that matter), in view of Russia's substantial non-nuclear capabilities and the limitations of France's nonnuclear forces. For France and the other urbanised and vulnerable nations of Western Europe, it is argued, a major conventional war in Europe is unacceptable and must be resolutely and decisively ruled out through a robust strategy of nuclear deterrence; a no-first-use policy would imply that nuclear weapons employment could not be threatened or carried out unless an enemy used such weapons first.

Although a few French proponents of a no-first-use pledge can be identified, 50 most of the French strategic community – including those in the 'less operational' school of thought – reject it. In their view, it would undermine nuclear deterrence and imply doubts about its coherence and legitimacy. Pascal Boniface has dismissed no-first-use pledges as 'unverifiable and incompatible with the very concept of deterrence'. 51 An American no-first-use initiative would therefore probably encounter strong French resistance. If the United States decided to join China in championing a no-first-use pledge, some French observers have suggested, France could probably count on the United Kingdom and perhaps Russia to oppose the conclusion of a general convention. They note that Russia effectively abandoned the Soviet Union's 1982 no-first-use pledge in November 1993. 52

Rather than favouring a no-first-use pledge, French experts are debating whether and how France should reformulate its negative security assurances. (Negative security assurances have historically consisted of commitments by nuclear powers not to use nuclear weapons against states legally committed to non-nuclear status and not allied with nuclear powers.) In August 1992, the French government said that it would intensify its efforts to make existing declaratory negative security assurances 'a juridically constraining guarantee against the use or threat of nuclear weapons by states equipped with these weapons'. 53

In the interim, officials and experts have raised questions about future French nuclear policy: what should France do about states armed with chemical and biological weapons, given that France has renounced these weapons? Should France reformulate its commitment to indicate that it will not threaten nuclear weapons employment against states without weapons of mass destruction – nuclear, chemical or biological? Or should France simply declare that it will not use nuclear weapons as long as its vital interests are not threatened? Some French analysts cite the new Defence White Paper in this regard. 'Our deterrent posture must be maintained for the protection of our vital interests, whatever the origin and form of the threat'.'54

France's main partner in the European Union, Germany, has also been a source of some concern for French officials responsible for nuclear security matters. Once again, intra-alliance consensus about basic policy guidelines has been less than total. In December 1993, German Foreign Minister Klaus Kinkel proposed that the United Nations establish a register of nuclear weapons in the interests of transparency and international confidence and as a complement to the register of conventional arms transfers.⁵⁵ It seems that one of the German motives was to promote an equalisation of treatment of the nuclear-weapon powers and non-nuclear-weapon states, with the argument that the latter have already accepted full transparency in the form of IAEA safeguards. A nuclear weapons register might, it was argued, serve as a 'sweetener' to help to gain an extension of the NPT by showing that the nuclear-weapon powers are sincere about fulfilling their obligations under Article VI of the NPT. Furthermore, the register could be seen as a security

precaution in case another nuclear-weapon state (in addition to the USSR) disintegrates, and it could complement the proposed cut-off of the production of fissile materials for weapons purposes.⁵⁶

In the event, even the second version of the German proposal – a register of dismantled nuclear weapons - was unacceptable to the United Kingdom, France and the United States; and the German government abandoned it in April 1994. It is noteworthy that Paris rejected this German concept perhaps even more firmly than London and Washington. It appears that the French argued that such a register could lead to demands for details about the location and types of weapons and, furthermore, that the very concept implied une logique de culpabilisation – as if the nuclear-weapon powers were somehow guilty parties that should be under surveillance. The French contended that making the recognised nuclear-weapon states more vulnerable to international political pressure would not deter aggression or prevent proliferation by threshold countries. Some French observers hypothesised that the Germans may have had motives in addition to those that were articulated – for instance, appealing to anti-nuclear sentiments for domestic political reasons, engaging in a 'demagogic stunt' vis-à-vis the Third World, and settling scores with Paris because of jealousy regarding France's status as a nuclear-weapon power.⁵⁷

The context of French reactions to perceived policy trends and attitudes in major allies, such as Germany and the United States, has probably been as important as the anti-nuclear policies of non-nuclear-weapon states, such as Mexico, in the Conference on Disarmament in leading the French to rule out 'denuclearisation' emphatically. As Prime Minister Balladur said in May 1994, a CTBT 'must not in any way envisage the elimination of nuclear weapons or seek to undermine the status of the nuclear powers. Any move in this direction would encounter France's opposition'.⁵⁸

Prospects

As the recent interactions with Germany and the United States suggest, France is in a new and not entirely welcome situation of greater vulnerability to the decisions of others. The international political context has changed radically from that of the Cold War, during which France built its nuclear-weapons posture and formulated its strategic policy guidelines. Partly because the proliferation of weapons of mass destruction was not seen during the Cold War as an imminent peril (although the trends were underway for those who cared to notice them), it was possible for France to be contented with a 'mini-superpower' force posture and a doctrine of strategic autonomy (la dissuasion du faible au fort) with a very low risk of this posture and doctrine ever being tested. France's independent deterrent was in fact a fall-back posture complementary to the arrangements undertaken by the United States and the other NATO allies. During the Cold War. with NATO responsible for Western security, France could assert its nuclear-based independence from the superpowers and champion the constitution of a Western European defence entity, with little likelihood that its

neighbours in Western Europe would ever accept it on French terms and little risk that they would ever propose arrangements that would put France's autonomy into question. The Cold War had frozen the international political situation, especially in Europe, and had perpetuated and protected a context in which France's nuclear-weapons posture and corresponding aspirations for autonomy could flourish.

The end of the Cold War and the changes symbolised by the Gulf War—the actual and prospective rise of regional powers equipped with weapons of mass destruction—have brought a number of changes that imply politically and psychologically wrenching challenges for the old policies. The new non-proliferation agenda requires France to work more closely with other governments to develop a consensus on international norms that must be respected. It implies a greater necessity for cooperation and conformity in a number of larger and, in some ways, less congenial groups than the Atlantic Alliance. In other words, it implies giving up, to some extent, France's long-standing aspirations to autonomy, leadership and great-power status in order to accept a more modest role or, at least, a less singular one. The pragmatic necessity for more closely coordinated policies in NATO and in larger forums is often perceived and presented in France as an abridgement of sovereignty and freedom of action, rather than as a positive opportunity.

The fundamental changes in the strategic situation are suggested by the growing French interest in active defences against aircraft, cruise missiles and ballistic missiles. An increasing number of French analysts have argued that, in addition to the inherent military value of being able to defend against some types of attacks, such defences are necessary to forestall the danger of internal political destabilisation if the government had no means to counter delivery vehicles that could be armed with nuclear, chemical or biological payloads. The *Patriot* experience in the Gulf War, French observers contend, showed that even an imperfect and inadequate defence can be of great political value – a means of resistance that can provide psychological reassurance to the public. The government's freedom of action in dealing with a future crisis could depend on the public being convinced that the government can defend the nation.⁵⁹

The February 1994 Defence White Paper called attention to the potential value of enhanced air and missile defences and improved detection capabilities, notably space-based means, and emphasised the pursuit of extended air defences, 60 perhaps owing in part to the cost and technical difficulty of ballistic-missile defence. Some French observers discern great merits in space-based and other technical surveillance and intelligence means that could enable France to minimise dependence on the United States. France has, however, long been frustrated with the limits of its own national resources and the difficulties of enlisting countries in addition to Spain and Italy in military space projects, including satellite reconnaissance. While some in France continue to see advantages in an exclusively European framework for air and missile defence, Defence Minister Léotard has argued

that this effort 'can only be Western. I do not even say European, because it presupposes a satellite network, a network of radars and types of weapons that are beyond the reach of individual states... It is necessary to work on it, but we will not be able to do it alone'.61

In other words, active defence requirements may over time encourage France to deepen its cooperation with European partners and the United States and to accept a role as simply one element in a large and necessarily integrated mechanism that will require rapid, perhaps even virtually automatic, responsiveness, at least against some types of threats. These requirements are given urgency mainly by the proliferation of missiles and weapons of mass destruction. Paradoxically, however, some French observers contend that the arguments about how to deal with nuclear proliferation have encouraged a focus on the vital interests of the nation, and that this has underscored the magnitude of the challenge in devising a multilateral Western European defence structure involving nuclear consultations and commitments. Moreover, in contrast with the mainstream support for enhanced cooperation and mutual confidence in the European Union, some in France have highlighted the importance of nuclear-weapons capabilities as an asset that may brake the decline in France's relative importance as that of Germany rises.

Ballistic-missile defence has also become an unsettling issue for some in France because of the Clinton administration's interest in seeking a clarification of the 1972 Anti-Ballistic Missile (ABM) Treaty that would facilitate the development of effective theatre missile defences (TMD). French observers argue that the proposed US-Russian understanding (which would reportedly permit TMD systems as long as they did not have a tested capability against re-entry vehicles arriving at a speed greater than 5 kilometres per second, the speed of a ballistic missile with a range of approximately 3,000km) would not in itself undermine the effectiveness of the French deterrent, because M-4, M-45 and M-5 SLBMs could penetrate such defences. Some of the French express concern, however, that licensing such defences could 'destabilise' the strategic context and eventually lead to an 'arms race' and the development of defences that could erode the credibility of France's strategic ballistic missiles. Moreover, some French observers contend, loosening the traditionally observed interpretations of the ABM Treaty would be inconsistent with the US administration's arms-control aims of seeking an unlimited extension of the NPT and the conclusion of a CTBT, and might also hinder the pursuit of further US and Russian strategic nuclear arms reductions (if these TMD systems were deployed in Russia and/or the United States).62

Nuclear testing, more than any other question, brings to a head the most contentious issues. Many in France who support a resumption of testing fear that Mitterrand may be correct in his judgement that the next President will be politically incapable of resuming tests. The word that comes up in every conversation is that France may be coincée – cornered or boxed in – by the international context of the NPT Extension Conference, the CTBT negotiations, the US pressure not to test, the unsympathetic attitudes in Germany

and in other non-nuclear-weapon states in the European Union, and the antinuclear sentiments in the South Pacific. Such considerations argue against testing, but the predominant conviction in the political class and military technical elite is that complete confidence in simulations without any further testing is unlikely in the foreseeable future.⁶³

François de Rose, one of France's most distinguished experts in strategic affairs, has argued that France will have to choose between 'the erosion of the value of our nuclear forces and the risk of a grave diplomatic crisis. The lesser evil . . . would be the diplomatic crisis: not only on grounds of security, but also to avoid sliding towards a *de facto* denuclearisation of the West of the Old Continent while, in the East, Russia would remain a major nuclear power'. Like a number of other French observers, de Rose contends that France should undertake a limited test series in order to enhance its simulation capabilities, after which it would cease testing for the indefinite future. In his view, the simulations rationale for a limited test series should be made clear in advance to limit the scale and intensity of objections in France and abroad.⁶⁴

A consensus that France may have to find ways to pursue its objectives without nuclear tests seems to be emerging, if only because a resumption of testing will be increasingly difficult on political grounds with the passage of time – even though support for weapons with new designs, including low yields and special effects, persists in some technical and political circles. It is generally conceded that Mitterrand's successor will feel bound, to some extent, by the decisions taken since France's test moratorium began in April 1992.

It is uncertain whether the next President will resume nuclear testing. Such a decision would not be popular outside France. The President would have to be in a strong domestic political position, backed by a national consensus in support of testing (which would probably not be available, according to polls of mass public opinion), or upheld by strength and determination from other sources. De Gaulle's order in 1960 for France's initial nuclear tests was given, it is recalled, in the face of substantial domestic and international opposition. The weaker the President's convictions and domestic political base, the less likely it is that he will order a resumption of testing.

The impact of the international context is not readily predictable. Chinese behaviour – including continued testing – might help to provide the context for resuming tests for simulation capabilities. On the other hand, US pressures on France to refrain from even a limited test series for simulation purposes would probably not achieve the intended effect. US criticisms could lead to a hardening of the French position – and perhaps even a more extensive test series – to demonstrate France's independence.

During the Cold War, the practical policy issues now under consideration were not present with such acuity:

- Proposals were made for limited and flexible nuclear-employment options, but they could more readily be dismissed in view of what seemed to be a stable East-West deterrent balance, and relatively little attention was given to the proliferation of weapons of mass destruction and possible nuclear employment contingencies outside Europe.
- Pressures to accept limits on nuclear testing could be resisted or finessed with self-imposed constraints (all French testing has been conducted underground since 1974).
- Ballistic-missile defences and improved air defences were also seen in an East-West context; France argued against any revisions to the ABM Treaty regime, which proved to be stable; and work on such defences proceeded quite deliberately because of the apparent stability of the East-West military stalemate and because missile proliferation outside Europe was scarcely noticed.

The essence of the new situation, as a number of French observers see it. is a novel and aggravating sense of dependence on foreign decisions - for permission to test nuclear warheads; for US assistance with simulations, if the international context does not allow France to conduct tests; for US intelligence to help to verify a test ban, if one is concluded; for Western European and US cooperation to build effective air and missile defences: for US and Russian restraint to retain the traditional ABM Treaty limitations; and so forth. It seems clear that future French nuclear-weapons policies will represent compromises between elements of the 'more operational' and 'less operational' approaches, with some effort (in accordance with a long-standing pattern in French defence policy) to keep options open and to postpone irrevocable choices – despite the budgetary constraints and other defence priorities that are likely to cut back France's nuclear ambitions. But what is most striking is the extent to which French choices are likely to be influenced by those made by other nations. The challenges to the traditional French approach to nuclear strategy can also be seen as challenges to French convictions about the nation's autonomy and international status.

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Notes

¹ This distinction is more fully developed in an earlier and more extensive discussion, on which the present article draws. See David S. Yost, 'Nuclear Weapons Issues in France', in John C. Hopkins and Weixing Hu (eds), Strategic Views from the Second Tier: The Nuclear Weapons Policies

of France, Britain, and China (San Diego, CA: Institute on Global Conflict and Cooperation, University of California, San Diego, 1994, to be republished by Transaction Publishers, Rutgers State University, New Brunswick, New Jersey, in January 1995), pp. 19–104.

² Admiral Jacques Lanxade, 'L'avenir de la dissuasion nucléaire', opening speech at UNIDIR conference on 'Dissuasion nucléaire: problèmes et perspectives pour la décennie 1990', Paris, 10 December 1992, pp. 11–12 of text furnished by Admiral Lanxade's office.

³ Interviews in Paris, September 1994. One participant in these debates, sometimes accused by others of being a nuclear 'war fighter', said that partisans of such an outlook are a tiny minority and have little influence. He accepted the distinction proposed in this article, but suggested that the 'less operational' tendency be characterised as 'pure deterrence', based mainly on massive retaliatory threats, and that the 'more operational' approach be relabelled 'operational deterrence', since it would adjust France's capabilities and declaratory threats to fit the challenges at hand.

4 'Loi no. 94-507 du 23 juin 1994 relative à la programmation militaire pour les années 1995 à 2000', Journal Officiel de la République Française, 24 June 1994, p. 9097.

⁵ See, among other sources, Jacques Isnard, 'Le missile de la discorde', Le Monde, 6-7 March 1994, pp. 1 and 16; and Jean Guisnel, 'Danser avec les fous', Libération, 21 June 1994, p. 4. ⁶ Xavier de Villepin, 'Singularité française et pari sur l'avenir', L'Armement, no. 43, July-August 1994, p. 21.

⁷ General Vincent Lanata, "Faire face": l'ère des nouveaux défis, Défense Nationale, vol. 49, August-September 1993, pp. 12-13. ⁸ Yves Cuau, 'Les forts, les faibles et les fous', *L'Express*, 11 November 1993, p. 46.

⁹ A speech by Prime Minister Pierre Bérégovoy at the Institut des Hautes Études de Défense Nationale, 3 September 1992. See the French Foreign Ministry's *Bulletin* d'Information, 7 September 1992, p. 6.

 Ministère de la Défense, Livre Blanc sur la Défense (Paris: Service d'Information et de Relations Publiques des Armées, February 1994), pp. 70 and 72.

Le Monde, 9 February 1991, pp. 8–9; and an interview with Roland Dumas, Journal du Dimanche, 10 February 1991. For background information on the international and domestic political context of these declarations, see David S. Yost, 'France and the Gulf War of 1990–1991: Political-Military Lessons Learned', Journal of Strategic Studies, vol. 16, no. 3, September 1993, pp. 339–74.

¹² See Pierre Joxe, 'Avenir de
l'armée', Le Figaro, 19 May 1992.
¹³ See Henri Conze and Jean Picq, 'L'avenir de la dissuasion nucléaire', Défense Nationale, vol. 49, February 1993, pp. 23 and 27.

¹⁴ See Colonel Henry de Roquefeuil, 'Les composantes air de la dissuasion nucléaire aujourd'hui et demain', Défense Nationale, vol. 49, August-September 1993, p. 41. It should be noted that French discussions of nuclear proliferation risks feature devices in addition to nuclear explosives. The Defence White Paper refers, for example, to 'weapons for the dispersal of radioactive materials'. See Ministère de la Défense, Livre Blanc sur la Défense, p. 15. Some popular accounts call them 'trash-can missiles' (missiles poubelles), projectiles loaded with nuclear wastes that could cause panic and extensive pollution.

October 1993, and Mitterrand's

See, for example, Dominique Garraud, 'Nucléaire: sous les essais, la querelle stratégique', *Libération*, 29 October 1993.

15 Jacques Baumel, Avis présenté au nom de la Commission de la Défense Nationale et des Forces Armées sur le projet de loi de finances pour 1994, no. 536, tome IV, Défense, Dissuasion nucléaire, no. 583 (Paris: Assemblée Nationale, October 1993), pp. 18-21. ¹⁶ For a thoughtful attempt to grapple with these issues, including possible roles for long-range precision-strike systems, special forces and air and missile defences, see L'avenir de la dissuasion française, Rapport des travaux du groupe de recherche et de réflexion no. 9 (Paris: Centre des Hautes Études de l'Armement/ CEDOCAR, April 1994).

¹⁷ François Léotard, Radio France/ France Inter, 12 November 1993, pp. 7-9 of the broadcast text.

18 'Intervention de M. François Mitterrand sur le thème de la dissuasion', Service de Presse, Présidence de la République, 5 May 1994, p. 9; and 'Discours de M. Edouard Balladur à l'Institut des Hautes Études de Défense Nationale', 8 September 1994, p. 3 of text furnished by the Service de Presse, Premier Ministre.

19 'Intervention by the French Representative at the Committee on Disarmament', 6 August 1992, in *Politique Étrangère de la France: Textes et documents, Juillet-Août 1992* (Paris: Ministère des Affaires Étrangères, 1992), p. 75.

²⁰ Bérégovoy's statement of general policy to the National Assembly, 8 April 1992, in *Le Monde*, 10 April 1992, p. 9.

²¹ The Elysée Palace communiqué of 4 July 1993 was published by the Service de Presse, Présidence de la République.

²² The joint communiqué by the Elysée Palace and the Hôtel Matignon of 6

statement of that date, were published in Le Monde, 8 October 1993, p. 9. ²³ Interview with President François Mitterrand on L'Heure de Vérité, France 2 (Paris: Service de Presse. Présidence de la République, 25 October 1993), pp. 25-26. ²⁴ 'Intervention de M. François Mitterrand', 5 May 1994, pp. 12-13. ²⁵ A speech by Edouard Balladur at the Institut des Hautes Études de Défense Nationale, 10 May 1994, p. 2 of text furnished by the Service de Presse, Premier Ministre. ²⁶ Ibid. See also the statement by Gérard Errera, France's representative at the Conference on Disarmament, on 25 January 1994, in the French Foreign Ministry's Bulletin d'Information, 26 January 1994. ²⁷ Interviews in Paris, May-June 1994. ²⁸ This paragraph is based mainly on interviews in Paris, but such theories about US motives, with references to the recently acknowledged secret US tests, may be found in various sources, including René Galy-Dejean, Rapport d'information déposé en application de l'article 145 du Règlement par la Commission de la Défense Nationale et des Forces Armées sur la simulation des essais nucléaires, no. 847 (Paris: Assemblée Nationale, December 1993), pp. 19-29. See also Patrice-Henry Desaubliaux, 'La nécessaire reprise des essais nucléaires', Le Figaro, 17 December 1993; and

continent'.

29 Interviews in Paris, May-June and September 1994.

Philippe Séguin, 'La défense de la France', Défense Nationale, vol. 50,

April 1994, pp. 15-17. Some French

interviewees expressed more regrets

principle involved. As one Frenchman

about the asymmetry in options to

conduct secret tests than about the

put it, 'Mururoa is an island, not a

³⁰ Cuau, 'Les forts, les faibles et les

fous'.

³¹ Michel Debré, 'Indépendance ou obéissance?', *Le Monde*, 16 December 1993.

³² 'Intervention de M. François Mitterrand', 5 May 1994, p. 12. ³³ See Pascal Boniface, Vive la bombe: éloge de la dissuasion nucléaire (Paris: Édition 1, 1992), p. 131; and

(Paris: Edition 1, 1992), p. 131; and Boniface, 'Les vieux démons', Le Monde, 13 October 1993, p. 2.

³⁴ Galy-Dejean, Rapport d'information, pp. 51–60.

35 Interviews in Paris, May-June 1994.
36 François Léotard, cited in *Le Monde*,

5 March 1994, p. 10.

³⁷ Balladur, 10 May 1994, p. 3.

³⁸ An interview with Jean-Pierre Chevènement, *Le Monde*, 13 July 1990.

³⁹ A speech by François Mitterrand at the opening of the 'Rencontres Nationales pour l'Europe', Palais des Congrès, Paris, 10 January 1992, text furnished by the Service de Presse, Présidence de la République, p. 9. For background information on the issues involved in building a multilateral Western European nuclear deterrent posture, see the valuable new book by Bruno Tertrais, L'arme nucléaire après la guerre froide (Paris: CREST-École Polytechnique/Economica, 1994), especially Chapter 11. ⁴⁰ Ministère de la Défense, Livre Blanc sur la Défense, p. 56.

sur la Défense, p. 56.

41 'Intervention de M. François
Mitterrand', 5 May 1994, pp. 2 and
15-16. Despite the more restrained
tone of official French statements on
this topic in 1994 in comparison with
two years earlier, some French
observers contend that recent British
decisions have created opportunities
for substantial operational coordination that had previously been deemed
unthinkable. See Michael Evans,
'Britain May Cut Nuclear Patrols', The
Times, 9 September 1994; and Peter
Almond, 'Twin Troops Join Forces',

Daily Telegraph, 13 September 1994. See also Nicholas K. J. Witney, 'British Nuclear Policy After the Cold War', Survival, vol. 36, no. 4, Winter 1994–95, pp. 96–112.

⁴² Roquefeuil, 'Les composantes air', p. 41.

⁴³ Interviews in Paris, May-June and September 1994. Some French observers point out, for example, that Germany and other non-nuclear Western European nations may not be eager to endorse an arrangement that could imply a renewed importance for nuclear weapons and therefore greater scope for Franco-British strategic and political leadership in the European Union.

⁴⁴ Pascal Boniface, 'La dissuasion peut se passer des essais nucléaires', *Libération*, 9 March 1993.

⁴⁵ Air et Cosmos, 1 November 1993, p. 36; Air Actualités, no. 467, November-December 1993, p. 11.

46 See, for example, Pierre Joxe,
'Discours d'ouverture', and Pierre Bérégovoy, 'Discours de clôture', in Ministère de la Défense, Un nouveau débat stratégique: Actes du colloque de Paris, 29-30 septembre, 1er octobre 1992 (Paris: Documentation Française, 1993), pp. 10 and 190.
47 Ministère de la Défense, Livre Blanc

sur la Défense, pp. 56-57. 48 The most frequently cited items were published before these men accepted positions in the Clinton administration: Les Aspin, 'From Deterrence to Denuking: Dealing with Proliferation in the 1990s', 18 February 1992, text distributed by the House Armed Services Committee; and Ashton B. Carter, William J. Perry and John D. Steinbruner, A New Concept of Cooperative Security (Washington DC: Brookings Institution, 1992). See the discussion in Stephen A. Cambone and Patrick J. Garrity, 'The Future of US Nuclear Policy', Survival, vol. 36, no. 4, Winter 1994-95, pp. 73-95.

⁴⁹ A line from Victor Hugo's poetry was cited in this regard: 'Et s'il n'en reste qu'un, je serai celui-là!'. Interviews in Paris, May-June 1994.
⁵⁰ See, for example, Marisol Touraine, 'Le facteur nucléaire après la guerre froide', *Politique Étrangère*, vol. 57, no. 2, Summer 1992, pp. 402-04.
⁵¹ Boniface, 'La dissuasion peut se passer des essais nucléaires', 9 March 1993.

⁵² In September 1994, President Clinton reportedly accepted the recommendation that current US policy be retained, implicitly rejecting the arguments for a change to a no-firstuse policy that had been made by some US officials. This decision postpones what might have been a substantial US-French (and US-British) disagreement over strategic policy. For background information, see R. Jeffrey Smith, 'Clinton Decides to Retain Bush Nuclear Arms Policy', Washington Post, 22 September 1994, p. 1. 53 'Intervention by the French Representative at the Committee on Disarmament', 6 August 1992, p. 76. ⁵⁴ Ministère de la Défense, Livre Blanc sur la Défense, p. 57.

55 'Deutsche 10-Punkte-Initiative zur Nichtverbreitungspolitik, Auswärtiges Amt, Pressereferat', 15 December 1993, point number 8.

⁵⁶ Interviews in Bonn, April 1994.

⁵⁷ Interviews in Paris, April 1994.

⁵⁸ Balladur, 10 May 1994, p. 2.

⁵⁹ For a recent statement of this argument, see Patrick Lefort, 'L'Europe

doit créer sa défense anti-missiles', Le Monde, 16 August 1994, p. 7.

⁶⁰ Ministère de la Défense, Livre Blanc sur la Défense, p. 62.

61 Léotard, 12 November 1993, p. 9.

62 This paragraph is based on interviews in Paris, September 1994. For background information on the long-standing importance of the ABM Treaty for France's strategic posture, see David S. Yost, Soviet Ballistic Missile Defense and the Western Alliance (Cambridge, MA: Harvard University Press, 1988), pp. 170-83; Yost, 'Western Europe and the US Strategic Defense Initiative', Journal of International Affairs, vol. 41, Summer 1988, pp. 269-323; and Yost, 'Nuclear Weapons Issues in France', pp. 33-34, 39-40, 47-48 and 65-66. ⁶³ Interviews in Paris, April-May and September 1994.

64 François de Rose, 'Préparer la reprise des essais nucléaires', *Enjeux du Monde*, no. 14, February 1994, p. 15.

65 According to one poll, 75% of the French hold that France should not resume testing as long as other countries do not do so. See Le Monde, 8 March 1994, p. 13. It appears that the pollsters did not ask whether China's continuing test programme could justify a resumption of French testing. Proponents of testing dismiss such polls as irrelevant to a determined national leadership and emphasise polls that show continued strong public support for France's nuclear forces.