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Going Nuclear, but How? The Netherlands Army and Tactical Nuclear Warfare in Europe, 1953–1968

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Abstract

In the historiography of nuclear arms in the Cold War the political and military strategic levels are dominant; little attention has been paid to the sub-strategic levels. This is understandable, because most archival material has been destroyed or is still classified. However, it is also remarkable because tactical nuclear weapons (TNW) were a crucial element in NATO strategies and because all NATO forces had to prepare, down to the lowest levels, to fight a war by nuclear means. Based on previously unused archives, this article analyses how the Dutch army, as an army of a small NATO-member state, adapted step by step to the nuclearisation of land warfare in the period 1953 to 1968. Which role were the TNWs assigned in the war plans? But also, how realistic would these plans have been, given the influence of (inter)national political developments, moral and psychological aspects, and military-technical and military-tactical issues?

Keywords

nuclear warfare – Cold War – tactical nuclear weapons – war plans – 1 Netherlands Corps – NATO – forward defence

Introduction

In the historiography of the Cold War and on the – related – subject of nuclear arms and (non-) proliferation, analyses of developments on the political and military strategic levels of policy are dominant; little attention has been paid to the sub-strategic military levels. This is remarkable, as on both operational and tactical levels, the role and impact of nuclear arms was also profound. American tactical nuclear arms played a key role in the defence plans of the armies of the North Atlantic Treaty Organization (NATO) in Western- and Southern Europe, intended to defend and deter against conventional Warsaw Pact invasions. Under what has been named NATO's 'nuclear sharing' arrangements, the armed forces of NATO-allies including the Netherlands, Belgium, and Italy became involved in the preparations for a radically new type of armed conflict: tactical nuclear warfare. This adaptation profoundly influenced the recent military history of all NATO (and former Warsaw Pact) states.

In the last decade, new studies have started to address this crucial but neglected part of Cold War military history. For instance, in *Elvis's Army* (2016) Brian McAllister Linn has called attention to the US Army's adaptation to the Atomic Age, the influence of interservice rivalry therein, as well as the practical reality of 'nuclear warfare' preparations through tests, exercises, and limited scientific knowledge.¹ Linn's study, however, illustrates the literature's tendency to focus on the role of the nuclear powers, at all levels, from the political strategic to the military sub-strategic.²

While understandable – there is little doubt that nuclear powers played a dominant role in the Cold War and nuclear policy – the focus on nuclear power tends to disregard the role of allied, non-nuclear states on the sub-strategic

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- 1 Brian McAllister Linn, *Elvis's Army: Cold War GIs and the Atomic Battlefield* (Cambridge, MA, 2016). For the US Army in the first decades of the Cold War, see also: Andrew J. Bacevich, *The Pentomic Era: The US Army Between Korea and Vietnam* (Washington, DC, 1986); Donald A. Carter, *Forging the Shield: The U.S. Army in Europe, 1951–1962*. (Washington, DC, 2015); and Ingo Trauschweizer, *The Cold War U.S. Army: Building Deterrence for Limited War* (Lawrence, KS, 2008). Since the armed forces of the European NATO-states were reliant on the Americans for information on nuclear arms (particularly NATO-states without their own nuclear programs), armies like the Dutch army were profoundly influenced by the developments within the US Army and other US institutions which set the standards for NATO's tactical use of nuclear arms.
 - 2 The distinction between the operational and tactical levels is often difficult to make with respect to nuclear weapons. See, for example, Linn, *Elvis's Army*, 80: "[...] indeed, the [U.S.] army never developed a satisfactory definition of a tactical atomic weapon, applying the term to everything from squad-level, highly portable mortars with a one-quarter-kiloton blast to missiles that fired warheads larger than the Hiroshima bomb".

level. Studying this latter role is relevant for two reasons. Firstly, because, while smaller allies had limited influence on the strategic level of NATO (nuclear) war planning, there were considerable margins of freedom at the operational and particularly the tactical levels. As such, studying the role of the smaller allies gives new perspectives on the way in which warfare with nuclear arms on the battlefield was envisioned and planned. Secondly, because the adaptation to the Atomic Age had profound effects on the post-World War II rebuilding and shaping of the armed forces, military doctrines, and defence policies of smaller European NATO-states; studying this impact increases our understanding of defence planning in the nuclear age, particularly in Western Europe. An important contribution in this respect is the international collaboration *Blueprints for Battle* (2012) which studied war planning in the European theatre from the perspective of several armed forces in the first decades of the Cold War, tracing the paradigm shifts of military strategies and doctrines and “how these shifts were reflected in the operational ideas and plans”.³ However, the specific plans for tactical nuclear deployment have not been analysed in any detail, primarily due to the lack of archival sources; operational plans with the use of nuclear arms often remain classified or have been destroyed.⁴ This article aims to shed new light on this important military historical perspective on the Cold War and nuclear arms through new archival research into the records of the Netherlands Army – particularly the I Netherlands Corps.

Thus, this article focuses in detail on concrete operational and tactical nuclear war preparation, seeking to answer the question: how did the Dutch Army, as an army of a smaller NATO-member state, adapt to the nuclearisation of land warfare? The article considers the period 1953 to 1968, from the introduction of the first tactical nuclear weapon in Europe to the implementation of flexible response. To answer the aforementioned question, this article will provide a detailed description of Dutch defence planning for land warfare within the NATO-context on the sub-strategic – mostly the tactical – level, focusing particularly on the role of TNWs therein.⁵ Moreover, this article considers the

3 Jan Hoffenaar and Dieter Krüger, eds., *Blueprints for Battle. Planning for War in Central Europe 1948–1968* (Lexington, KY, 2012). Quote on p. xxvii.

4 See *ibid.*, xv, 156 (particularly on the West German records) and 203 (on the British records).

5 This article focuses on the Royal Netherlands Army and the preparation for nuclear land warfare. The Royal Netherlands Air Force operated within entirely different lines of command and on a different stage. The air forces would hardly support the ground forces with tactical air support (nuclear or conventional). Rather, they focused on interdiction and achieving air superiority. For the Dutch preparation of (nuclear) air warfare by the Royal Netherlands Air Force in the period covered in this article, see Quirijn van der Vegt, *Take-off. De Opbouw van de Nederlandse Luchtstrijdkrachten, 1945–1973* (Amsterdam, 2013). On the case of the Royal

relevant context of these preparations, most importantly the international political-strategic and the international military strategic developments, decisions, and agreements – particularly in the NATO context. The Dutch domestic political context is also considered where relevant. After the outline of the defence planning and the role of nuclear arms therein, the article finishes with an analysis on the degree to which the Dutch army considered atomic land warfare in the NATO-context feasible from the military-tactical, technical, and ethical perspectives.

The First Atomic Weapons on the Battlefield (1953–1959)

In the years after the end of the Second World War, tensions rose between the United States and the Soviet Union, victorious in that conflict. To counter the (perceived) threat of the Soviet Union and its new satellite states in Eastern Europe, the United States, Canada, and Western and Southern European states founded the North Atlantic Treaty Organization (NATO) in 1949. The Netherlands was a founding member and a strong supporter of transatlantic defence cooperation.⁶ One of the core functions of NATO was the build-up of a coordinated defence of Western Europe. To that goal, the defending armies were integrated into a single command structure, headed by the Supreme Allied Commander Europe (SACEUR). From his Supreme Headquarters Allied Powers Europe (SHAPE), SACEUR was responsible for the strategic and operational preparation for the defence of the continent. The Dutch army forces committed to the common defence were organised in the *1e Legerkorps* (I Netherlands Corps) hereafter 1(NL)Corps, which was part of the Northern Army Group (NORTHAG).⁷ 1(NL)Corps was composed of professional and conscripted cadre and largely conscripted troops. The corps' most important forces were the combat-ready 4 Division and 1 Division (combat ready since 1959).⁸ 1(NL)Corps further consisted of a mobilisable division, several mobilisable

Netherlands Navy and naval nuclear preparations, see D. C. L. Schoonoord, *Pugno Pro Patria. De Koninklijke Marine tijdens de Koude Oorlog* (Franeker, 2012).

6 For the Dutch role in, and perspective on, post-World War II defence policy in Europe, see Jan van der Harst, *The Atlantic Priority: Dutch Defence Policy at the Time of the European Defence Community* (Florence, 2003).

7 Jan Hoffenaar and Ben Schoenmaker, *Met de Blik naar het Oosten. De Koninklijke Landmacht 1945–1990* (The Hague, 1994), 106–120; Jan Hoffenaar, “Hannibal Ante Portas’: The Russian Military Threat and the Build-up of the Dutch Armed Forces, 1945–1958”, *Journal of Military History* 66 (2002): 163–191.

8 Hoffenaar and Schoenmaker, *Met de Blik naar het Oosten*, 93, 149–150 and *passim*.

battle groups (later: brigades), partially combat-ready corps artillery and other corps units.⁹

NATO's main defensive line was initially established along the rivers Rhine and IJssel (in the Netherlands and southwest Germany). NATO's armed forces were heavily outnumbered by their counterparts in the Warsaw Pact, particularly in terms of manpower and armour – around the early 1950s, NATO presumed the enemy could bring some 175 divisions to the field. In 1952, a minimum of 50 NATO divisions was held necessary to counter this threat.¹⁰ However, the (re)establishment of allied defence forces in the late 1940s and early 1950s took place in the context of the rebuilding of Europe; to many leading Dutch politicians, the (economic) reconstruction was a priority, as were several other problems which required resources, such as the decolonisation/independence war of the Dutch East Indies.¹¹

The British and Americans, too, wanted to limit their expensive (conventional) military contribution to the build-up of conventional forces in Europe, and recognised that the 1952 requirement of fifty divisions could and would not be met.¹² In October 1953, the administration of President Dwight D. Eisenhower introduced its New Look, which saw a shift in US political and military strategy to counter potential conventional Soviet aggression – particularly in Europe – towards dependency on nuclear arms and deterrence. The New Look saw an increase in the American strategic nuclear build-up,¹³ and led the US – including the US Army – to advocate the introduction of nuclear arms for use on the battlefield. Given their exceptional power, these tactical nuclear weapons (TNWs) were argued to be an effective solution to the key main military threats; Soviet armoured formations and large enemy concentrations.¹⁴

9 In addition to 1(NL)Corps, there were the – largely mobilizable – territorial troops for the National Sector.

10 Lawrence S. Kaplan, "Strategic Problems and the Central Sector", in *Blueprints for Battle*, eds. Hoffenaar and Krüger, 9.

11 Jan Hoffenaar, "The Dutch Contribution to the Defense of the Central Sector", in *Blueprints for Battle*, eds. Hoffenaar and Krüger, 217–218.

12 Kaplan, "Strategic Problems", 8–9.

13 William Burr and David Rosenberg, "Nuclear Competition in an Era of Stalemate, 1963–1975", in *The Cambridge History of the Cold War*, Vol 2: *Crises and Détente*, eds. Melvyn P. Leffler and Odd Arne Westad (Cambridge, 2010), particularly 385–386. See also Marc Trachtenberg, *History and Strategy* (Princeton, NJ, 1991), particularly 160–162; David Holloway, "Nuclear Weapons and the Escalation of the Cold War, 1945–1962", in *The Cambridge History of the Cold War*, Vol. 1: *Origins*, eds. Melvyn P. Leffler and Odd Arne Westad (Cambridge, 2010), 385.

14 See Marc Trachtenberg, *A Constructed Peace: The Making of the European Settlement 1945–1963* (Princeton, NJ, 1999), 151–152. On the New Look and the US Army, see Linn, *Elvis's Army*, 4, 85–87; for the Dutch military perspective, see Hoffenaar and Schoenmaker, *Met de Blik naar het Oosten*, 136. See also Kaplan, "Strategic Problems", 9.

In May 1953, a successful test of a tactical nuclear weapon was conducted in the Nevada desert; the gigantic M-65 280mm cannon, referred to as 'Atomic Annie', was subsequently introduced with US troops in West Germany. Although it soon proved unwieldy, slow, and vulnerable, the 280mm cannon marked the beginning of the actual nuclearisation of American – and later allied – ground forces in the European theatre.¹⁵

Even though the prospect of a nuclear war in Europe was grim, most Dutch politicians – including Minister of War Cornelis (Kees) Staf – diplomats, and armed forces officials supported both the introduction of TNWs in Western Europe, and the possibility of American sharing of TNWs with NATO-allies. The Dutch even pressured the Americans to take steps towards nuclear sharing, for several reasons; from the military perspective, the TNWs were deemed crucial to making the defence against the gigantic Eastern armies realistic.¹⁶ The Dutch were particularly eager to realise 'forward defence', wherein the defence of Western Europe would be organised as close as possible to the Warsaw Pact border – i.e. in the Federal Republic of Germany, along the border of the German Democratic Republic. If this was realised, the entirety of Dutch territory would be defended, and would even fall outside of the direct battlefield area. From the political perspective, several arguments played within Dutch political circles, including the perceived importance of securing American involvement in the security and peace in Europe; the hope that American nuclear sharing would curb neighbouring European states' independent nuclear ambitions; and the calculation that the introduction of the powerful TNWs would limit the necessity of an expensive conventional military build-up.¹⁷

While at the government level, the Dutch supported the gradual steps towards nuclear sharing within NATO, the Netherlands Army leaders had begun to prepare the army for atomic warfare. One of the efforts they made in this context was to address the fear and uncertainty surrounding the new nuclear weapon amongst the troops and the civilian population. In 1954, a demonstration was organised to show personnel and the general public the effectiveness of personal protection against a nuclear explosion. The chief physician of 4 Division was quoted in a newspaper stating that "one atomic bomb and we're all dead [...] is nonsense, a foolish notion that must be made to disappear".¹⁸ Moreover, the commander of 1(NL)Corps distributed transcripts

15 Donald A. Carter, "War Games in Europe", in *Blueprints for Battle*, eds. Hoffenaar and Krüger, 138; Carter, *Forging the Shield*, particularly 102–104, 213, 267.

16 Hoffenaar and Schoenmaker, *Met de Blik naar het Oosten*, 112, 136.

17 Duco Hellema, *Dutch Foreign Policy: The Role of the Netherlands in World Politics* (Dordrecht, 2009), 170.

18 In this article, the original Dutch wording of in-text quotes translated by the authors from Dutch to English is provided in the footnotes: "één atoombom en we zijn er allemaal

of lectures held by his staff officers to all officers in the Corps; in these documents, the introduction of ‘the A-bomb’ (*het a-wapen*) was compared to the introduction of gunpowder. It was often argued by the Army’s spokespeople that the nuclear weapon was to be regarded simply as a very powerful explosive; it would alter warfare, but not render it impossible. These arguments, it was held, were based on the course on atomic weapons taught by Americans at the NATO Special Weapons School in the German town of Oberammergau; officers of the Dutch army staff (General Staff) and the division commanders had recently completed this course.¹⁹

The Dutch army was not only preparing for atomic warfare through courses and demonstrations; preparations were also made in planning and exercises. The Dutch – 1(NL)Corps – had been assigned a sector along the Rhine-IJssel line, which covered the north and centre of the Netherlands. To the south lay the sector assigned to the British Army of the Rhine.²⁰ In the abovementioned transcripts, produced in February 1954, a member of the General Staff announced with regards to the possibility of nuclear support on the battlefield that “at the moment, we can expect that SHAPE will assign a limited number of A-weapons to the Army Groups [...]. The commanders of the Corps and their atomic advisory group, I told you this morning that such a group also exists in 1(NL)Corps, will be responsible for the tactical use of the assigned weapons.”²¹

Such plans – to incorporate American TNWs in allied armies – were indeed becoming more concrete, as evidenced by the September 1954 NATO-exercise BATTLE ROYAL. It was no secret that this exercise served to test the effects and potential of TNWs on the battlefield. A combined British-Dutch force would attack a Canadian-Belgian force; both had operational command of 280mm ‘Atomic Annie’ guns, operated by Americans.²² Thus, it is fair to conclude that

geweest [...] onzin [is], een dwaas praatje dat beslist de wereld uit moet”. Netherlands National Archive, The Hague [hereafter NL-HaNA], Staf 1e Legerkorps en de daaronder ressorterende Divisies 1–6 (Staff 1 Netherlands Corps and subordinate divisions 1–6), access number 2.13.148, inventory number 504. Documents from May 1954. The demonstration was codenamed MUSHROOM (*PADDESTOEL*).

19 NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 537. Kolonel B. Koning, “Bundels Oefening ‘Voorwaarts’”, 5 March 1954.

20 Hoffenaar and Schoenmaker, *Met de Blik naar het Oosten*, 106–120.

21 “op dit ogenblik [mag] aannemen dat het SHAPE een gelimiteerd aantal a-wapens zal toewijzen aan de legergroepen [...] Legerkorps commandanten met hun atoomadviesgroep, ik vertelde u vanmorgen al dat deze ook bij 1(NL)LK aanwezig is, zijn dan verantwoordelijk voor het tactisch gebruik van de toegewezen wapens.” NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 537. Koning, “Bundels Oefening ‘Voorwaarts’”.

22 NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 507. 1 Legerkorps/4 Divisie, Verslagen betreffende oefening ‘Battle Royal’, October 1954.

the Netherlands Army's first concrete experiences with atomic warfare took place in 1954.²³

Following these developments, in December 1954, the North Atlantic Council adopted document MC 48, officially basing NATO's strategy for the defence of Europe upon nuclear deterrence through immediate retaliation on the strategic and tactical levels.²⁴ The role of nuclear arms in battle, and the potential availability of tactical nuclear support, soon made its way into Dutch military preparatory planning; in January 1955, the commander of 1 Division made an "assessment of the enemy's condition" for the commander of 1(NL)Corps, "to determine the potential of possible support with atomic arms to my division in the current war sector".²⁵ He expected that if the enemy would attempt to cross the river IJssel near Deventer (in the Netherlands), he would form "(an) atomic target(s) on the consecutive islands he would have to conquer". Therefore, he advised "to prepare concentrated fire with all available weapons on the locations of enemy concentrations, before and during his crossing".²⁶ The *Militaire Spectator*, the Dutch monthly periodical on war sciences written by and for officers, published two special editions on atomic war in January and February 1955,²⁷ because "the technical developments with regards to atomic weapons are such, that we must become fully accustomed to the notion that a next war will be fought as an atomic war".²⁸ Meanwhile, in international politics, Cold War tensions were rising further. The new Federal Republic of Germany joined

23 The commander of 1(NL)Corps came to a similar conclusion in his report of the exercise: Luitenant-Generaal A.T.C.Opsomer, "Battle Royal", *Militaire Spectator* 124 (3) (1955): 106–125. See also Hoffenaar and Schoenmaker, *Met de Blik naar het Oosten*, 136, 138.

24 Trachtenberg, *A Constructed Peace*, 158–161; Trachtenberg, *History and Strategy*, 181–182. For the Dutch perspective and MC 48 in Dutch historiography, see Dirk Starink "De Nuclearisering van de Krijgsmacht", in *In de Schaduw van de Muur. Maatschappij en Krijgsmacht rond 1960*, eds. Ben Schoenmaker and Jan Janssen, (Den Haag, 1997), 85.

25 "beoordeling vijandelijke toestand" [...] "ter beoordeling van de eventuele steun van atomische strijdmiddelen te verlenen aan mijn divisie in het huidige oorlogsvak". NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 362. Generaal-Majoor C.J.Valk, 7 December Divisie, "BVT nr.2" (228A/680/ZG), 18 January 1955.

26 "(een) atoomdoel(en) op de achtereenvolgens door hem te veroveren eilanden" (...) "vuurconcentraties met alle beschikbare wapens [voor te bereiden] op de verzamelplaatsen van de vijand, voor en gedurende zijn overgang". NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 362. Generaal-Majoor C. J. Valk, 7 December Divisie, "BVT nr.2" (228A/680/ZG), 18 January 1955.

27 *Militaire Spectator* 124 (1 and 2) (1955): 1–100.

28 "de vorderingen van de techniek ten aanzien van de vervaardiging van A-wapens zijn zodanig, dat wij ons ten volle vertrouwd moeten maken met de gedachte dat een volgende oorlog als 'atoomoorlog' zal worden gevoerd". Ibid., 4. Quote from General B. R. P. F. Hasselman, Army Chief of Staff.

NATO in May 1955, to which the Soviet Union responded by officially allying the Eastern bloc in the Warsaw Pact. New studies from SHAPE showed the necessity of deploying hundreds – even thousands – of nuclear weapons for the defence of Europe, including as TNWs in the allied armies in the context of forward defence.²⁹

Importantly, as the American historian Marc Trachtenberg observed, MC 48's reliance on American nuclear arms at the strategic and tactical level for the defence of Europe meant that "the MC 48 strategy implied that the European armies needed to be equipped with nuclear weapons. And this in turn meant that the United States [...] had to help the Europeans acquire a certain nuclear capability."³⁰ Indeed, the deliberations between the European allies and the Americans about a nuclear sharing arrangement would eventually lead to the well-known 1959–1960 arrangements wherein European armed forces controlled the 'nuclear capable' weapon systems while the Americans retained custody over the warheads – as analysed below. However, therewith, an implicit historiographical question remained whether the nuclearisation of the European armies – simultaneously with the US forces in the European theatre – was stalled until negotiations succeeded in 1959–1960, or whether nuclear sharing was already taking shape before 1960, as Trachtenberg alludes to in his analysis predominantly based on American declassified documentation.³¹ New Dutch archival evidence shows that, in fact, in the second half of the 1950s, another solution was found.

In November 1956, right after the brutal suppression of the Hungarian Revolution, the Dutch parliament approved the preparation of the Dutch armed forces for the use of nuclear arms, proposed by Minister Staf.³² With international and national political arrangements in place, plans to use tactical nuclear support could be started.³³ From 1956 onwards, 4 Division would intercept the enemy from forward positions along the Dortmund-Ems Canal, in an attempt to prevent – or at least delay – the enemy's advance to the Rhine-IJssel line. In August, the commander of 1 Division wrote in his draft fire

29 Richard A. Wampler, *NATO Strategic Planning and Nuclear Weapons 1950–1957* (College Park, MD, 1990), 27.

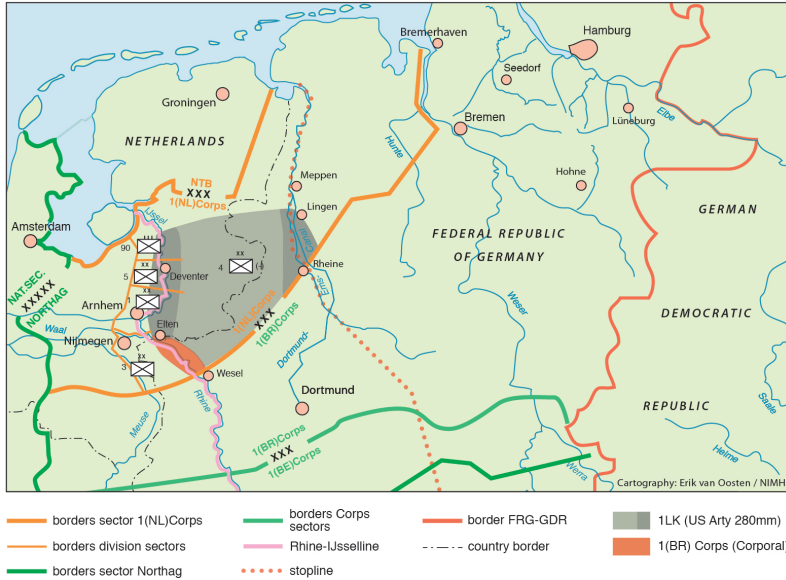
30 Trachtenberg, *A Constructed Peace*, 176.

31 See *ibid.*, 193–200.

32 Hellema, *Dutch Foreign Policy*, 171.

33 The commander of 5 Division already wrote in his order dated 1 March 1956: "atomic support: further information will follow" ("atoomsteun: nadere gegevens volgen"). NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 77. Generaal-Majoor F. W. J. M. Peters, 5 Divisie, "Operatiebevel 1 Deel II" (G3/7), 1 March 1956.

Possible tactical nuclear support in sector 1(NL)Corps 1956 - 1958



plan: “from 1(NL)Corps, 4 Division will engage in NORTHAG’s defensive battle, which includes maximum use of atomic weapons”.³⁴ Under “atomic support” it was stated that “on further orders from NORTHAG, a battery of 265 US Field Artillery Battalion (280mm) will come under operational command of the commander of 1(NL)Corps”.³⁵

In May 1957, the North Atlantic Council approved of MC 14/2, assigning – and reaffirming – the central role in NATO’s defence of Europe to (nuclear) massive retaliation at the strategic level (‘the ‘sword’), while at the tactical level, the introduction of TNWs to the defending forces in Western Europe (the ‘shield’) was approved. NATO-armies – which, importantly, remained relevant

34 “van 1Lk neemt 4 Div[isie] deel aan het door NORTHAG te voeren verdedigend gevecht, waarbij maximum gebruik van atoomwapens”. NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv. nr. 406. Generaal-Majoor W. de Boer, 7 December Divisie, “Bijlage 5a (vuursteunplan) bij Operatiebevel Nr2 deel 1” (G3/54/71.63.11/ZG), 31 August 1956.

35 “atoomsteun” (...) “op nader bevel van [commandant] NORTHAG komt een batterij van 265 [US Field Artillery Battalion] (280mm) onder operatief bevel van [commandant 1Lk]”. Ibid. As described in Carter, *Forging the Shield*, 104–105, since June 1954, the 265th US Field Artillery Battalion was, indeed, an “atomic artillery battalion” and was soon assigned to the Northern Army Group.

in withstanding a conventional attack on Western Europe – would have to (be able to) use TNWs immediately following a hostile invasion in Europe.³⁶

Soon then, the earlier ‘draft’ plans for the de facto command over a TNW weapon system would be formalised. At a meeting in July 1957, 1(NL)Corps commander Jean Couzy announced to his staff and the division commanders that an ‘atomic support plan’ had recently been approved by SACEUR, and would soon be implemented. Couzy indicated that his suggestions and plans, submitted to NORTHAG back in August 1956, had been included but altered somewhat therein. He stated that “for our entire defensive fight, including the phase at the D/E Canal, a number of atomic projectiles have been made available to me”.³⁷ Indeed, in September, 4 Division’s ‘atomic support plan’ was introduced, wherein it was stated that “1(NL)Corps supports the defence of the area around the Dortmund-Ems Canal and the Rhine-IJssel with tactical a-weapons according to plans approved by SACEUR”.³⁸ In this effort, Second Allied Tactical Air Force (2ATAF) would be able to “attack, with a maximum of three atomic weapons, strong enemy formations which, after the abandonment of the Dortmund-Ems Canal defences, advance along the axis Rheine-Wesel to the Rhine-IJssel line”.³⁹ Additionally, 1(BR)Corps could provide tactical nuclear support with MGM-5 Corporal missiles, equipped with warheads of 10 and 50 KT against “bridgeheads across the Rhine”⁴⁰ on the border of the Dutch and British sectors, from Elten southward. Moreover, in case of war, the American 265 Field Artillery 280mm battery would be placed under the command of the commander of 1(NL)Corps, or alternatively the commander of 4 Division in his part of the Dutch sector, at “a moment in time to be communicated by COMNORTHAG”.⁴¹ Three types of nuclear shells were available for the 280mm: 8,

36 Trachtenberg, *A Constructed Peace*, 188–189. See also, particularly on the Dutch perspective, Hoffenaar and Schoenmaker, *Met de Blik naar het Oosten*, 144–147; Starink, “De Nuclearisering van de Krijgsmacht”, 85–86.

37 “voor het gehele verdedigende gevecht met inbegrip van de fase aan het D/E kanaal een aantal atoomprojectielen ter beschikking zijn gesteld”. NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 30. Kolonel J.P.F. Agasi, 1 Legerkorps, “Verslag commandantenvergadering 1e Legerkorps 26 juli” (Kab/7342/F/ZG), 29 July 1957.

38 “Ik steunt de verdediging in het gebied van het Dortmund-Emskanaal en de Rijn-IJssel met tactische A-wapens volgens door [SACEUR] goedgekeurde plannen”. NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 184. Luitenant-Generaal J. H. Couzy, 1 Legerkorps, “Bijlage 15A (Atoomsteunplan) bij operatiebevel nr.2” (G3/7351/M/Zeergeheim), 9 September 1957.

39 “sterke vijandelijke eenheden, welke na het loslaten van het [Dortmund/Ems]-kanaal langs de as Rheine – Wesel naar de Rijn-IJssel stelling doorstoten, met (max drie) tactische A-wapens [... kunnen] aanvallen”. Ibid.

40 “eventuele [vijandelijke] bruggenhoofden over de Rijn”. Ibid.

41 “op een door COMNORTHAG aan te geven tijdstip”. Ibid.

10, and 20 KT.⁴² The limited number of TNWs would be used primarily against river crossings. 1(NL)Corps' instructions for defensive tactics were officially changed in February 1958 to accommodate the availability of TNWs.⁴³

On 1 June 1958, NATO took a first step toward forward defence. A new main line of defence was organised further east, outside of Dutch territory: the Weser-Fulda line. The rivers Rhine and IJssel would only serve as a last stopping line. The Dutch were assigned the northernmost sector within NORTHAG's area, with the 1(GE)Corps in the bordering sector to the south. 1 Division would mount an aggressive, mobile defence on the eastern bank of the river Weser and slowly move westward. TNWs were to be used in this effort, and a new atomic support plan, issued by NORTHAG, was made. 4 Division, acting as the Corps reserve, was to prepare counterattacks.⁴⁴ Since the new sector was located outside the Netherlands, 1(NL)Corps would have to move east in case of rising international tensions; to facilitate the logistics of atomic support herein, relevant plans were drawn up in coordination with the Americans. The January 1959 version, for instance, stipulated that in (the run up to) war, the commander of 1(NL)Corps would assume command over C-battery (280mm), 3rd Gun Battalion, "81(US)Arty" (presumably 81st Field Artillery Regiment). At the announcement of NATO mobilisation/readiness measures, the battery – stationed with American troops near the West German town of Baumholder, in the American sector of the FRG – would move "under the guise of a normal training to Lingen training area (...) and later move to the [1(NL)Corps] concentration area east of Wildeshausen".⁴⁵ For protection and support of the

42 Ibid.

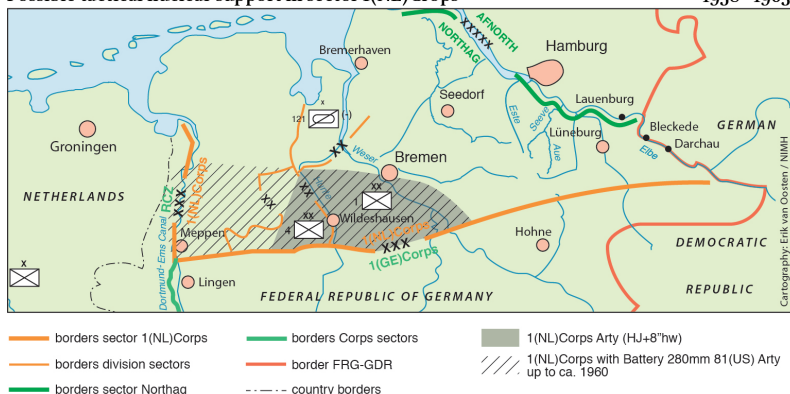
43 NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 82. Luitenant-Generaal J. H. Couzy, 1 Legerkorps, "Tactische aanwijzing nr.4" (Kab/21969), 11 February 1958. More or less simultaneously, the Royal Netherlands Air Force was also undergoing 'nuclearization': minister Staf was told that the air force would receive American conversion kits for the F-84F Republic Thunderstreaks to carry American nuclear weapons. The kits actually arrived in December 1958, the nuclear charges stored at a new site in the Netherlands, and after a year of specialized training, the first squadron of Dutch nuclear-capable fighter-bombers was ready, Van der Vegt, *Take-Off*, 189–190.

44 Martin Elands, Richard van Gils, and Ben Schoenmaker, *De Geschiedenis van 1 Divisie '7 December' 1946–1996* (The Hague, 1996), 160, 179; see also: Hoffenaar, "The Dutch Contribution", 225. The new atomic support plans for the Weser defences are mentioned in NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 30. Kolonel J. P. F. Agasi, 1 Legerkorps, "Verslag commandantenvergadering 1e Legerkorps 11 December 1957" (Kab/7342/F/ZG), 18 December 1957. These plans were also rehearsed in the exercise TOP WEIGHT. NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 551. Kolonel van de Generale Staf J. R. Schoemaker, "Rapport oefening 'Top Weight'" (11.058/ZD), 24 April 1959.

45 NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 83. Luitenant-Generaal J. H. Couzy, 1 Legerkorps "Instructions for traffic control, engineer support and security escort of Cbty-3rd Gun Bn

Possible tactical nuclear support in sector 1(NL)Corps

1958 - 1963



battery and the “atomic warheads” during the movements, 1(GE)Corps was responsible up to Lingen, where 1(NL)Corps would take over.⁴⁶

As such, 1(NL)Corps became involved in the planned use of TNWs between 1954 and 1958. However, in these years, the Royal Netherlands Army itself did not yet have units available that could deliver nuclear charges. Soon, political developments changed this; the Dutch use of TNWs at the Weser would no longer rely on American artillery units.

‘Dutch’ Nuclear Capabilities in Operational Plans (1959–1968)

In the second half of the 1950s, the process of nuclearisation of NATO and the Cold War took shape and continued. New nuclear warheads and delivery systems were being developed in the US, while the Soviet Union made significant progress in nuclear weapons technology and production. As the military and political importance of tactical nuclear capabilities grew, the European allies began pressurising the Americans for increased European involvement in tactical nuclear capabilities – some European states, particularly the United Kingdom and France, were also in the process of developing independent nuclear arsenals. In this context, in the North Atlantic Council of December 1957, the US proposed a ‘stockpile agreement’, also known as the ‘dual key’ arrangement; the European allies would control ‘dual capable’ weapon systems

81(US)Arty” (G3/7276/ZeerGeheim), 24 January 1959. There were also versions from 1958, which were edited and replaced several times.

46 Ibid.

(i.e. suitable for both conventional and nuclear delivery) while the Americans would stockpile the nuclear warheads in Europe.⁴⁷ Minister Staf was a prominent supporter of this solution, for similar reasons as the Dutch had supported nuclearisation from the beginning; the fact that the delivery systems would be supplied by the Americans for little to no cost made accepting 'nuclear tasks' for the Dutch armed forces more appealing.⁴⁸

Subsequently, the US engaged in bilateral negotiations with European allies on the aforementioned dual key plans. The American-Dutch bilateral arrangements on the sharing of nuclear information and secrecy, and on the storage and release procedures, were agreed upon in 1959 and 1960 respectively.⁴⁹ The general contents appear to be – the agreements remain classified – that the TNWs would remain in American custody, and be released to the Dutch forces in wartime following a US Presidential release order, which would be communicated through NATO lines of command and communication. These agreements, and the subsequent arrival of American nuclear arms on Dutch soil, were “proof and symbol of the [Dutch] military dependence on the United States”.⁵⁰

These developments paved the way for the introduction of the Netherlands Army's first nuclear capable weapon system; the MGR-1 Honest John (HJ) rocket system. The HJ was an unguided, surface-to-surface artillery rocket with a range of approximately 25-30km. It was designed and produced in the US for both tactical nuclear and conventional use. In May 1959, 109 field artillery battalion was founded, as a unit of the Corps artillery. This battalion had four HJ delivery systems. In November 1960, a second army corps field artillery battalion (119) was founded. Also, in March 1960, 19 and 49 field artillery battalions were formed as part of the division artillery of respectively 1 and 4 Division. These were so-called mixed battalions, each with two HJ delivery systems and a battery of four nuclear-capable M-110 8-inch howitzers (hw).⁵¹ The American nuclear warheads for the 8" hw (W33) arrived in the Netherlands in 1962. The

47 Trachtenberg, *History and Strategy*, 184–185; see also, particularly on the Dutch perspective, Starink, “De Nuclearisering van de Krijgsmacht”, 87–88.

48 Starink, “De Nuclearisering van de Krijgsmacht”, 90.

49 Elmar Hellendoorn, “Between the Devil and the Deep Sea: The Netherlands and the Struggle for European Nuclear Order, 1954–1966”, PhD diss., Utrecht University, 2016, 258; see also Starink, “De Nuclearisering van de Krijgsmacht”, 91.

50 Hellema, *Dutch Foreign Policy*, 172–173.

51 Jan Hoffenaar, Joep van Hoof, and Jaap de Moor, *Vuur in Beweging. 325 Jaar Veldartillerie 1677–2002* (Amsterdam, 2002), 156–160; Hoffenaar and Schoenmaker, *Met de Blik naar het Oosten*, 160.

HJ nuclear warheads arrived in 1960. These warheads were stored near the field artillery battalions' bases in two 'sites'; US Custodial Detachments were responsible for their safekeeping.⁵²

The arrival of the HJs was publicised widely; the Netherlands Army's magazine featured stories about the impressive rocket,⁵³ and it was even shown publicly in parades. However, there was never any discussion or public acknowledgement of the HJ's nuclear capability. This is remarkable, because the HJ was introduced (almost) exclusively for nuclear delivery; as it was being introduced, articles were published in the *Militaire Spectator* which held that – not unlike the 280mm canon – the HJ should in principle only be used with atomic warheads as it was so inaccurate, hard to camouflage and thus vulnerable to enemy anti-artillery attacks, and slow to assemble, aim, and launch.⁵⁴ In general, there was little political or societal debate regarding the arrival, storage, and potential use of nuclear arms in the Netherlands and its armed forces – save for protests by the Dutch communists and slowly growing concerns in the churches. A partial explanation of this relative lack of controversy is the secrecy that was demanded by the Americans within NATO. Moreover, Dutch political and military leaders also presented TNWs as normal, usable weapons; any discussions on these new arms could therefore be limited to military-technical and tactical debates – all but excluding the ethical and international-political dimensions.⁵⁵

The nuclear artillery was introduced into 1(NL)Corps as heavy fire support. Throughout much of the 1950s and 1960s, there were lively discussions in the Dutch armed forces and broader defence community on the tactical and technical aspects of atomic warfare and the use of TNWs specifically, as well as on the organisational consequences. Among other things, this led to the need to write many new manuals (often largely copied from US manuals) in a short period of time, to adjust training programs, and to re-establish logistic lines. From 1956, the organisation of the NL Army Corps and its divisions was also adapted to atomic warfare. In the final years of the 1950s the so-called 'atom'

52 Hoffenaar et al., *Vuur in Beweging*, 159–160.

53 "Afd Honest John aan het werk", *Legerkoerier* 10 (5) (1960): 15; "Honest John Gelanceerd. Een Stuk Scheurt uit Hemel en Aarde", *Legerkoerier* 10 (9) (1960): 16–18.

54 Most notably, this point was made by Major J. H. Carstens, "De Taktische Atoomwapens", *Militaire Spectator* 128 (9) (1959): 337–344; and Major H. C. M. Daalmeijer, "Wat Iedere (Taktische) Commandant moet weten van Taktische Atoomwapens", *Militaire Spectator* 128 (2) (1959): 56–63. That the HJ was, in principle, only to be used with nuclear warheads was stated in internal documentation as well, for instance in NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 216. Dienst van de Kwartiermeester-Generaal, "Opbouw Honest John-raketten" (LogOps/2683/649/ZeerGeheim), 5 October 1960.

55 See on this conclusion also Hoffenaar et al., *Vuur in Beweging*, 162. See also the analysis later in this article.

infantry division was introduced, with tactical battle group commands that would have a number of 'loose' divisional units at their disposal, depending on the circumstances. This divisional structure only superficially bore some resemblance to the US Pentomic division, but on closer inspection the differences outweighed the similarities.⁵⁶ In the first half of the 1960s the transition was made to the well-known, German doctrine inspired, LANDCENT division, which was also introduced to armies of other NATO allies.⁵⁷

In short, the artillery's tactical nuclear capabilities would serve three related tactical purposes. Firstly, TNWs would be used to prevent hostile river crossings – or at least make them as costly as possible. Secondly, TNWs could be used to efficiently destroy large concentrations of enemies, particularly armoured formations, against which the Dutch had insufficient conventional defences. Thirdly, TNWs would be used to make counterattacks possible; it was expected that the Dutch would have to counterattack against superior numbers to drive the enemy from NATO-territory. TNW artillery could weaken enemy spearheads which could then be counterattacked with armoured formations.⁵⁸

In 1962, the Americans also supplied 1(NL)Corps with a second type of TNWs; Atomic Demolition Munitions (ADMs). ADMs were low-yield nuclear charges which could be placed into the ground or upon vital infrastructure. These TNWs would also be used for three related, tactical purposes. Firstly, to make important tactical terrain impassable, through cratering and/or radioactive contamination. Secondly, to slow the enemy's advance by destroying large roads, railways and heavy bridges. Thirdly, to channel the enemy's paths of advance into concentrated columns, which could then be attacked. ADM stockpiles for Dutch use were located in the FRG. As with the nuclear artillery, the nuclear charges were in American custody, and following a release by the US President communicated through NATO-channels, the commanders of 1(NL)Corps and 4 Division would assume command over the ADM teams. The ADMs would be moved under protection and logistical support by elements of the Dutch ADM-detachment (III 'Platoon Special Assignments') while

56 Hoffenaar and Schoemaker, *Met de Blik naar het Oosten*, 146–149.

57 *Ibid.*, 152–156.

58 As stated, many articles were written about aspects of tactical atomic warfare between the mid-1950s and the mid-1960s. For instance, see Majoor van de Generale Staf H. C. M. Daalmeijer, "Wat Iedere (Taktische) Commandant Moet Weten van Taktische Atoomwapens", *Militaire Spectator* 128 (2) (1959): 56–63; Majoor J. H. Carstens, "De Taktische Atoomwapens", *Militaire Spectator* 128 (9) (1959): 337–344; Majoor L. Schothorst, "Enkele Denkbeelden over het Optreden van de Infanterie in de Pantserinfanteriebrigade bij de Aanval en de Tegenaanval onder Nucleaire Omstandigheden", *Militaire Spectator* 130 (2) (1961): 51–59.

American ‘emplacing-teams’ would be responsible for the actual placing and detonation.⁵⁹

While the HJ and the 8” howitzer units were being trained and adapted for ‘nuclear use’, NATO’s strategy for the defence of Europe still depended on the Weser-Fulda line. The sector assigned to 1(NL)Corps covered much of the Federal Republic’s north, including parts of the infamous North German Plain. Particularly the southern part of the Dutch sector was, according to the staff of 1 Division, deemed to be “excellent terrain for tanks”.⁶⁰ There, NATO-strategists and Dutch experts believed, a swift and extensive armoured offensive by Warsaw Pact troops was to be expected at the start of a major war.⁶¹

In the defence plans for the Dutch sector – in use up to the summer of 1963 – 1 Division would organise a mobile defence on the eastern side of the river Weser, with extensive use of TNWs. Calculating that 1 Division would be forced back across the river Weser, on the Western side of the river, 4 Division would prepare counterattacks. The advancing enemy would be forced into concentration around their crossing of the Weser; these concentrations would then be attacked with more TNWs.⁶² In their planning, the staff of 1 Division could use 18 nuclear (artillery) warheads, of which they deemed seven 1,5 KT 8” nuclear howitzer rounds the most important to the plan; more powerful TNWs were problematic due to the necessary safety measures for friendly troops – see

59 ‘Peloton Speciale Opdrachten’. For ADM s in de Royal Netherlands Army, see Martin Elands, Joep van Hoof, Christ Klep, and Herman Roozenbeek, *250 Jaar Genietroepen 1748–1998* (The Hague, 1998), 195; D. J. Bloem et al., *Nederland en de Kernwapens. Een Studie over het Nederlands Nucleair Beleid 1972–1985* (Alphen aan de Rijn/Brussels, 1987), 18–19; Starink, “De Nuclearisering van de Krijgsmacht”, 92; P. B. R. de Geus, *Staatsbelang en Krijgsmacht. De Nederlandse Defensie tijdens de Koude Oorlog* (The Hague, 1998), 100. ADM s appeared in several operation plans, for instance: NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 573. Generaal-Majoor F. E. Meynderts, 4 Division, “operatieplan nr.1” (G3/007/R/68/ZG), 30 August 1968. For ADM s with NATO-forces in Europe, see Hoffenaar and Krüger, eds., *Blueprints for Battle*, particularly 26–27, 64, 84.

60 “uitstekend tankterrein”. NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 35. Generaal-Majoor E. J. C. van Hootegem, 1 Division, “Bezoek CGS aan staf 1 Div ‘7 Dec” (Kab/64/62/Geh), 23 August 1962.

61 See Helmuth Hammerich, “Fighting for the Heart of Germany: German I Corps and NATO’s Plans for the Defense of the North German Plain in the 1960s”; Torsten Diedrich, “The German Democratic Republic”, 175–202; Hoffenaar, “The Dutch Contribution”, all in *Blueprints for Battle*, eds. Hoffenaar and Krüger.

62 Hoffenaar and Schoenmaker, *Met de Blik naar het Oosten*, 168; NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 35. Generaal-Majoor J. H. Heimel, 4 Divisie, “Voordracht voor Chef van de Generale Staf” (KaptAdj./049/ZG), 30 August 1962.

further down in this article for more details on this matter. The majority of the TNWs would be used in the south-eastern part of the Dutch sector.⁶³

The commander of 1 Division complained to the Army Chief of Staff that in his opinion, the defence plans – even with the extensive use of TNWs – were likely to fail. He argued that the Dutch sector was too wide to be successfully defended with the equipment and resources available, especially given the strength of the opposing forces.⁶⁴ On 9 October 1962, just before the Cuban Missile Crisis, a member of the staff of 1(NL)Corps concluded that the credibility of the defence plans for the Dutch sector depended heavily on the availability and use of TNWs; notably, this also included ADMs. After the Cuban Missile Crisis, the Americans would make ADMs available to the European allies.⁶⁵

Despite the doubts about the feasibility of the existing plans, it was decided within NATO that the next step to the east would be made, in the context of further forward defence. In these new plans, effective on 1 September 1963, the enemy would have to be both intercepted and halted before or on the eastern side of the river Weser. Therefore, 1(NL)Corps now planned for 4 Division to intercept the enemy and organise a delaying defence between the rivers Elbe and Aue.⁶⁶ This plan, which required Dutch forces to intercept the enemy even further from Dutch territory, was made feasible – on paper at least – by the planned “abundant use of nuclear weapons” because “in particular, maximum casualties must be inflicted upon the enemy with nuclear arms”.⁶⁷ This extensive use of TNWs would take place as follows: a battalion of the corps artillery would be ordered to move as far east as possible, to fire with HJs at the enemy’s crossing sites over the river Elbe.⁶⁸ Then, 4 Division would be able to use 18 artillery-type TNWs to support the delaying defence, attacking channelled, concentrated enemy units; these TNWs were ten 8” shells and eight HJ rockets.⁶⁹ If the enemy reached the river Aue, which was the main defensive line,

63 NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 35. Van Hootegem, “Bezoek CGS aan staf 1 Div ‘7 Dec”.

64 Ibid.

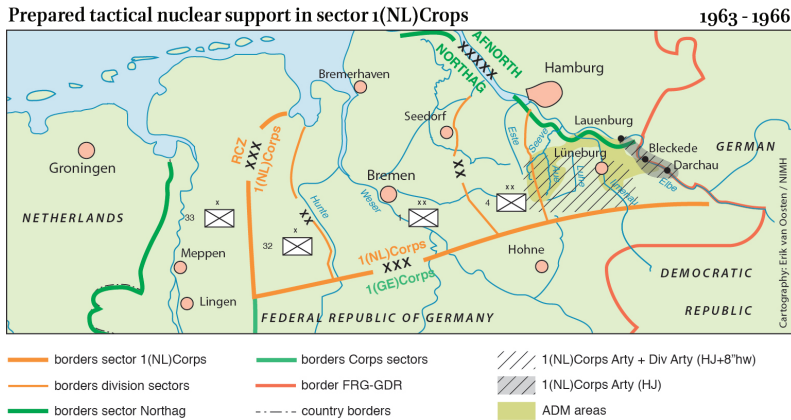
65 NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 216. Sectie G3, 1 Legerkorps, “Memo betreffende de tac samenwerking 1(GE)Lk en 1(NL)Lk” (Brief 10.522A), 9 October 1962.

66 For more information, see Hoffenaar and Schoenmaker, *Met de blik naar het Oosten*, 170–171.

67 “een ruim gebruik van kernwapens” (...) “in het bijzonder moet met kernwapens de vijand maximale verliezen worden toegebracht”. NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 572. Generaal-Majoor G. H. Christan, 4 Divisie, “Ontwerp operatiebevel nr.15” (G3/122/E/ZG), 15 July 1963.

68 However, it was explicitly stated that 4 Division was not authorized to use TNWs against targets on the East German side of the Elbe river. Only the corps artillery units were authorized thereto.

69 NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 572. Christan, “Ontwerp operatiebevel nr. 15”.



the corps artillery was set to use “the majority”⁷⁰ – we can assume at least ten – of the nuclear HJ warheads, to facilitate a persistent defence and, if possible and necessary, a counterattack. Should this fail to halt the Warsaw Pact forces’ advance, 1 Division would be responsible for the defences up to the river Weser.⁷¹

The recently acquired ADMs also had an important function in the new plan. Back in April 1963 the commander of 1(NL)Corps 1Lk had written to the commander of NORTHAG that “one important requirement to be able to fight a more forward defen[c]e is a considerable increase in the allotted numbers of ADM’s as well as an early release to the covering forces, who need them very badly. We feel, that in view of the weakness of 4 Div[ision] and the perfect tank terrain without natural obstacles, ADM’s in sufficient numbers are of primary importance. The exact number required still has to be worked out but will be about 30 of various yields.”⁷² It appears that this request was granted, because in the plans, 29 ADM locations were prepared; in twelve of these, ADMs were intended to create a crater, and on fifteen locations to cause bridges to become impassable.⁷³ The ADMs were planned to play a significant role in the slowing

⁷⁰ “het gros”. Ibid.

⁷¹ Ibid.; Hoffenaar and Schoenmaker, *Met de Blik naar het Oosten*, 170–171; see also Elands et al. *De Geschiedenis van 1 Divisie*, 179–180.

⁷² NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 216. Luitenant-Generaal J. C. E. Haex, 1 Legerkorps, “Forward Defense Strategy Comments letter” (G3/63/10.522/A), 29 April 1963.

⁷³ NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 572. Generaal-Majoor G. H. Christan, 4 Divisie, “2e opgave van wijzigingen op operatiebevel nr.15” (G3/122/N/ZG), 7 October 1963. It seems likely that it was not the intention – nor in the range of possibilities – to actually detonate

and channelling of the fast approaching enemy, especially in the phases around the rivers Elbe, Ilmenau, and Aue.

As stated previously, the tactical nuclear warheads could only be used by Dutch troops after American release, which would be communicated through NATO lines. In the early 1960s, there seems to have been a high degree of confidence – particularly in the official plans and guidelines – that TNWs would be released early in a large conflict. This confidence stemmed partially from the expectation that the Soviets would also use TNWs (almost) immediately in their attack. Importantly, even if they did not, it was stated in the plans that it was not possible, “with the available forces” to “defend NATO territory, unless strategic and tactical nuclear arms are used”.⁷⁴ Still, we can find signs of growing doubts about the wisdom of making the defence plans so dependent on (foreign) TNWs. In December 1963, the commander of 4 Division wrote to his superior, the commander of 1(NL)Corps, that “nuclear arms in particular will have to swing the battle in our favour; the available [conventional] means of fire support are incapable of doing so. [...] However, it is doubtful whether nuclear arms will be used, given the current political-strategic concept.”⁷⁵ In the *Militaire Spectator*, a member of the General Staff openly questioned the image of TNWs as heavy fire support; he held that the psychological and political aspects of nuclear arms on the battlefield should not be ignored.⁷⁶

It is important to view such comments in the international political context. The Soviet Union had been closing significant parts of the nuclear gap, meaning that by the early 1960s, NATO’s use of tactical or strategic nuclear arms could trigger a similar response. Thus, NATO began to move towards a nuclear doctrine which allowed for more flexibility to respond with appropriate (nuclear) measures against an attack. The administration of President John F. Kennedy – which came to power in 1961 – began to question the wisdom of NATO’s reliance on an early, massive nuclear answer to Soviet aggression.

ADMs at all prepared locations. It is more likely that, depending on the developments during the first phases of the war, ADMs would be detonated at the most crucial locations which could (still) be reached in time.

74 “met de beschikbare [...] strijdkrachten niet in staat het NATO gebied te verdedigen, tenzij strategische en tactische kernwapens worden gebruikt”. NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 572. Christan, “2e opgave van wijzigingen op operatiebevel nr. 15”.

75 “het zijn vooral kernwapens die het gevecht beslissend zullen moeten beïnvloeden; de beschikbare vuursteunmiddelen zijn daar niet toe in staat. [...] Het is echter zeer de vraag of kernwapens zullen worden ingezet, gezien de huidige politiek-strategische conceptie.” NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 572. Generaal-Majoor G. H. Christan, 4 Divisie, brief “Operatieplan F.D.S.” (G3/122/0/ZG), 5 December 1963.

76 Luitenant-kolonel van de Generale Staf F. van Pelt, “Militaire Aspecten van de Ontwapening”, *Militaire Spectator* 132 (4) (1963): 177–182.

This was exacerbated by the Berlin Crisis (1961) and the Cuban Missile Crisis (October 1962) which showed the risks and inflexibility of NATO's nuclear strategy and nuclear deterrence in general. The Kennedy administration promoted what is commonly known as 'flexible response' – i.e. a proportionate and gradually escalating response to Warsaw Pact aggression.⁷⁷ This view, however, would only be accepted as official NATO doctrine in 1967.

The previously described defence plans had hardly been accepted and implemented, when in 1964, the planning started for even further forward defence. While in the 1963 plan, the goal had been to intercept and delay the enemy's advance as far east as possible, the goal for the new plan was to effectively halt the enemy as far east as possible. To this aim, 41 Armoured Brigade (4 Division) would form the intercepting force and soon start an increasingly tenacious defence. Then, 13 Armoured Infantry Brigade (4 Division) would take over in the area east of the river Ilmenau and attempt to concentrate the advancing enemy into columns, which could be attacked with TNWs. Should the Warsaw Pact troops manage to cross the Ilmenau, 43 Armoured Brigade (also 4 Division) would defend between its western bank up to the river Aue, where the entirety of 4 Division would make a decisive stand. 1 Division was tasked with further defence and/or the important counterattack from the west bank of the river Aue. The commander of 1 Division would deploy TNWs if the enemy penetrated the Aue line.⁷⁸ This plan was changed several times between 1964 and 1966, mostly due to the changing role of TNWs within NATO; the gradual switch from massive retaliation to flexible response is clearly traceable in these versions of the same operation plan.

In the defensive plan design of December 1964, it was still assumed that within 4 Division, "for their defensive planning, the brigades have a number of nuclear weapons at their disposal. Most of the nuclear arms are to be used between the forward edge resistance area and the river Luhe, of which the majority between the rivers Ilmenau and Luhe. The deployment of a nuclear weapon on the bridge [over the river Elbe] at Lauenburg is prepared."⁷⁹ The

77 See Carter, "War Games", 147–148; Philip Nash, "Bear Any Burden? John F. Kennedy and Nuclear Weapons", in *Cold War Statesmen Confront the Bomb: Nuclear Diplomacy since 1945*, eds. John Lewis Gaddis, Philip H. Gordon, Ernest R. May, and Jonathan Rosenberg (New York, 1999).

78 Hoffenaar and Schoenmaker, *Met de Blik naar het Oosten*, 171–174; Elands et al. *De Geschiedenis van 1 Divisie*, 180–181.

79 "brigades bij de verdediging voor planning kunnen beschikken over enkele kernwapens. Het gros der kernwapens is bestemd voor inzet tussen de voorste rand weerstandsgebied en de Luhe, waarvan het merendeel tussen Ilmenau en Luhe. Inzet van een kernwapen wordt voorbereid op de brug [over de Elbe] bij Lauenburg." NL-HaNA, Staf 1e Legerkorps, 2.13.148,

Dutch expected Warsaw Pact forces to attempt crossings of the river Elbe at three main sites: Bleckede, Alt Garge, and Darchau. Nuclear HJ fire was prepared for these areas.⁸⁰ Moreover, the use of “a significant number of nuclear arms”⁸¹ by division and army corps artillery was also crucial to 1 Division’s counterattack; so much so, that the commander of 1 Division stated that his counterattack was “to a significant extent dependent on the available number of nuclear weapon systems or the [...] timely permission for the deployment of the 30 KT arms”.⁸² That the nuclear warheads would not be released was not considered as a possible scenario in 1964, nor was a very late release. A first phase without nuclear support was factored in, however: 4 Division was ordered to delay and stop the enemy as much as possible “to buy time for the declaration of R[Release]-Hour”.⁸³ Meanwhile, in 1964 the possibility of a Selective Release (also referred to as ‘S-hour’) of TNWs was introduced. Although there are limited archival sources on selective release, it seems that a number of preselected lighter nuclear arms were set to become available upon Selective Release, such as ADMs and/or 8” shells,⁸⁴ to provide for an escalatory option between conventional warfare (no release) and full nuclear release.

The 1966 version of the operation plan, which was implemented, was much more flexible than previous plans. It was ordered that “in case of action without enough nuclear support” – particularly in the first phases – the defence would be focused on the phase between the rivers Ilmenau and Aue. However, if “timely approval of the use of nuclear arms” took place, 4 Division would attempt to halt and destroy the advancing enemy in the area

inv.nr. 572. Generaal-Majoor G. H. Christan, 4 Divisie, “Operatieplan nr.3” (G3/572/-/ZG), 3 December 1964.

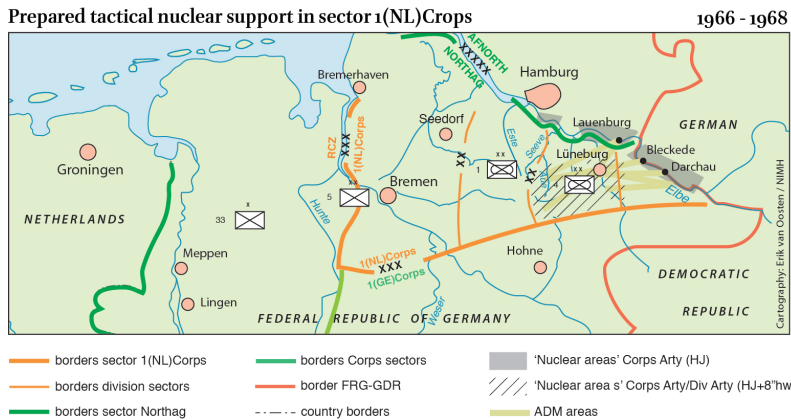
80 Ibid.

81 “een aanzienlijk aantal kernwapens”. NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 363. Generaal-Majoor F. A. Palm, 1 Divisie, “Oefening Colloquium (discussie ontwerp operatieplan nr.2 en 3)” (4A/65/ZG), 20 January 1965.

82 “in belangrijke mate afhankelijk van het beschikbaar aantal kernwapeninzetmiddelen of [...tijdig] toestemming tot inzet van de 30 KT wapens”. Ibid.

83 NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 573. Generaal-Majoor G. H. Christan, 4 Divisie, “Oefening Colloquium (discussie operatieplannen nr.2 en 3)” (G3/001/A/65/ZG), 14 January 1965.

84 Neither the archives of 1(NL)Corps, nor (Dutch) literature, provide much information on ‘S-hour/Selective Release’. It is mentioned for instance in NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 227. Brigade-Generaal M. C. Schram de Jong, 1 Legerkorps, “Tactisch gebruik 8”-hw eenheden met atoomcapaciteit” (Art/64/12305), 17 June 1964; NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 573. Christan, “Oefening Colloquium (discussie operatieplannen nr.2 en 3)”.



east of the river Ilmenau.⁸⁵ The same went for ADMs; 4 Division would prepare for, but could not depend on the actual execution of, “deployment of ADMs to strengthen the obstacle line with as centre of gravity [the area] between the rivers Elbe and Ilmenau” and “in the area to the West of the Ilmenau”.⁸⁶ 1(NL) Corps and/or 1 Division probably also prepared the use of ADMs around the river Aue.

The increasing flexibility of the release and role of nuclear arms in land warfare meant that the military faced increasing uncertainty about how the upcoming battles should be both prepared for and fought. Still, it is important to note that, ultimately, the crucial importance of TNWs to any feasible defence in the Dutch sector had not decreased. The 1966 plan did not include a scenario without the use of TNWs. In October 1966, NORTHAG even raised the number of TNWs delegated to 1(NL)Corps by 10 percent.⁸⁷ TNWs were, despite all insecurity and flexibility, still crucial to a credible defence.

85 “bij een optreden zonder voldoende kernwapensteun” [...] “tijdig toestemming tot gebruik van kernwapens”. NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 573. Generaal-Majoor G. H. Christan, 4 Divisie, “2e wijziging operatieplan nr.3” (G3/002/E/ZG), 28 February 1966.

86 “inzet ADM’s ter versterking van de hindernisgordels met zwaartepunt [het gebied] tussen de Elbe en de Ilmenau” [...] “in het gebied ten westen van de Ilmenau”. NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 573. Generaal-Majoor G. H. Christan, 4 Divisie, “1e wijziging operatieplan nr.3” (G3/002/D/66/ZG), 15 February 1966.

87 NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 40. Luitenant-Kolonel C. Kolff, 1 Legerkorps, “Jaarverslag 1966” (G1/67/2030/K), 25 January 1967.

Official Flexibility (1967-onwards)

By approving MC-14/7 in October 1967, the North Atlantic Council finally accepted 'flexible response' as NATO's official doctrine. Therewith, NATO established that both conventional and nuclear defences were important to mount a proportional defence to any aggression by the Warsaw Pact.⁸⁸ Only if a conventional Warsaw Pact attack appeared close to breaking through NATO's conventional defences, would TNWs be used in the European theatre. As a result, the Dutch Army abolished the nuclear artillery at the division level and concentrated TNW capabilities at the corps level; the mixed 19 and 49 field artillery battalions of the division artillery were disbanded, their HJ batteries and their 8-inch batteries were brought together in a new, reorganised 19 field artillery battalion, now part of the corps artillery.⁸⁹ The effect of the new strategy on the 1(NL)Corps operational plans was perhaps smaller than might be expected. Much of the necessary flexibility was already included in the 1966 plan. The last step towards full flexibility was taken in 1968, when it was stated in the plans that the defence should be planned "without consideration of the possibility of nuclear support".⁹⁰ However, despite NATO's apparent intention to decrease the reliance on nuclear arms in the defence of Europe, the reality in the late 1960s was that the conventional defences – including the Dutch forces – were still incapable of withstanding an all-out conventional Warsaw Pact attack.

Therefore, the 1968 plan aimed for 4 Division to delay the enemy's advance between the Elbe and the area west of the Ilmenau for at least 30 hours. The intention of this plan was to buy time for NATO's political leadership, which could then decide on their calculation of the enemy's intentions and the appropriate escalatory response. If enemy forces kept advancing beyond the 30 hour fight to cross the Ilmenau, 1(NL)Corps would channel invaders into its sector in the area southwest of Lüneburg (in the eastern part of the Weser defensive area). This was the primary location where a tactical nuclear option could be executed, if NATO-leaders decided to do so, in the form of the 'NORTHAG simultaneous selective strikes'. With these strikes, the advancing enemy forces – having been concentrated in the first phase of the battle –

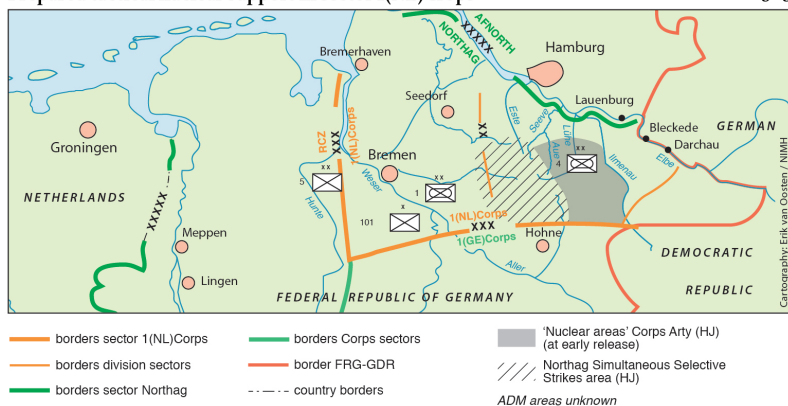
88 See Kaplan, "Strategic Problems", 18; Burr and Rosenberg, "Nuclear Competition", 100. On the perspective of the Royal Netherlands Army on the adoption of the flexible response doctrine, see also Hoffenaar and Schoenmaker, *Met de Blik naar het Oosten*, 230–240.

89 Hoffenaar et al., *Vuur in Beweging*, 185–186.

90 "het gevecht wordt gevoerd zonder rekening te houden met kernwapensteun". NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 573. Generaal-Majoor F. E. Meynderts, 4 Divisie, "Operatieplan nr.3R en 3J" (G3/007/J/68/ZG), 15 July 1968.

Prepared tactical nuclear support in sector 1(NL)Corps

1969



would be destroyed in all NORTHAG sectors simultaneously around the Weser line, with a predetermined – and likely significant – number of TNW s. Counterattacks would then be initiated in an attempt to completely break the enemy advance and push Warsaw Pact forces back as far as possible from NATO territory. In the Dutch case, this counterattack was to be executed by 1 Division aided by Corps reserves.⁹¹ In terms of the role of TNW s, the 1968 plan would serve as a basis for at least a decade to come.⁹²

Useful Fire Support or Purely Deterrents? An Analysis

Having outlined 1(NL)Corps' defence plans, with inclusion of TNW s, one question particularly rises: did 1(NL)Corps personnel actually intend to execute these 'nuclear' plans if the Cold War had become a Hot War? Or were the TNW s purely intended to be weapons of deterrence, which could or would not really be used on the battlefield? We can divide the answer to this question in three aspects, which all contributed to the 'reality' of potential TNW use by Dutch forces: the influence of (inter)national political developments; moral and psychological aspects; and military-technical and military-tactical issues. We will now consider all three areas in this order.

⁹¹ NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 573. Generaal-Majoor F. E. Meynderts, 4 Divisie, "Operatieplan nr.5" (G3/007/T/68/ZG), 19 September 1968; Hoffenaar and Schoenmaker, *Met de Blik naar het Oosten*, 230–233; Hammerich, "Fighting for the Heart of Germany", 170–171. Here, Hammerich mentions the number of "at least fifty nuclear weapons" in COMNORTHAG's plans in January 1969.

⁹² For further information on the defence planning of 1(NL)Corps after 1968, see Hoffenaar and Schoenmaker, *Met de Blik naar het Oosten*, particularly 352–357.

Firstly, regarding the influence of politics. The parts above have shown that the defence plans of the Dutch forces – within the NATO framework – were highly dependent on TNWs; without tactical nuclear support, the Dutch themselves expected to be defeated in a matter of days. Yet, the steady ‘flexibilisation’ of the planned use of TNWs throughout the 1960s is also evident. Much of the increasing uncertainty within the Dutch army on whether the reliance on TNWs was wise related to the changing political role of TNWs. The nuclear parity that was achieved in the early 1960s and American reservations about reliance on (tactical) nuclear arms, initiated by the Kennedy administration, made the (timely) release of the crucial American TNWs increasingly uncertain. These international political developments had their effects not only upon the Dutch Army, but were also recognised by the Dutch government, which officially stated in November 1964 that “the question whether nuclear arms for tactical use can still be regarded as conventional must be answered negatively. Still, nuclear arms can be used in certain tactical situations”, while also recognising the danger that TNW use would trigger a strategic nuclear exchange.⁹³ Indeed, through 1960–1968, the perception that TNWs were intended purely to strengthen conventional defences – a view developed in the early 1950s – was being replaced by the deterrent role of TNWs. As a result, Dutch commanders occasionally questioned the reliance on TNWs, requesting, for instance, a strengthening of conventional reserve forces in case TNWs would not be released in time.⁹⁴

At the same time, there were doubts whether the flexibilisation that came to influence the planning more and more in the mid-1960s was based on realistic expectations of the enemy’s plans: several leading 1(NL)Corps officers expected that, by then, if the Warsaw Pact started a war in Europe, its forces would immediately use TNWs. In this sense, the preparations and procedures for a conventional war – or for a gradual nuclear escalation – were deemed mostly theoretical. They could even delay or distract from the required preparations and readiness for a war under immediate nuclear conditions.⁹⁵

93 “De vraag of nucleaire wapens voor tactisch gebruik nog als conventioneel worden beschouwd, wordt ontkennend beantwoord. Nochtans kunnen de nucleaire wapens in bepaalde omstandigheden tactisch worden gebruikt.” Rijksbegroting voor het dienstjaar 1965, hoofdstuk X Defensie, “Defensienota”, Memorie van antwoord, 16 November 1964, 3.

94 NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 572. Generaal-Majoor G. H.Christan, 4 Divisie, brief “Operatieplan F.D.S.” (G3/122/0/ZG), 5 December 1963.

95 For instance, in a letter to the Head of Tactical Education at the Staff School Secondary Military Education of April 1965, the G3 of the 1(NL)Corps staff argued that the doctrine on the delaying defence should not be based on conventional circumstances with an added section on nuclear war – as the addressee had proposed – but vice versa. NL-HaNA, Staf

Secondly, there were the ethical, humanitarian, and psychological aspects to the (planned) tactical use of nuclear arms. The areas which 1(NL)Corps expected to use – or be involved in the use of – TNWs included densely populated, ‘friendly’ areas in Northern Germany; up to mid-1958 perhaps even on Dutch soil. Moreover, the analysis of the defence plans above shows that the number of TNWs expected to be used in a conflict increased between the mid-1950s and mid-1960s, worsening the potential humanitarian and psychological disaster in case of war.

Already by 1954, the corps command realised that nuclear explosions on the battlefield – including by Dutch forces – could cause large numbers of military and civilian casualties as well as streams of refugees in the Dutch sector. This could not only cause logistical challenges – as victims and refugees would have to be evacuated⁹⁶ – but could also cause serious psychological problems for Dutch troops.⁹⁷ As the expectation of a highly ‘nuclearised’ war grew in the 1960s, this problem became more pressing. The Army leadership knew that some, but (it seems) no extensive, evacuation plans had been made for West German civilians. It was expected that the mobile nature of the potential conflict and the expected rapid advance of Warsaw Pact forces would leave too little time for mass evacuations. Moreover, since Dutch troops were predominantly based hundreds of kilometres from their defensive positions, securing a smooth military advance was the absolute logistical priority.⁹⁸ Therefore, the ‘stay put’ (‘stay at home’) policy was instituted in (most of) NATO territory, stipulating that civilians remained situated in their residential areas except for the most intense battle areas. The Dutch armed forces would rely on the West German police and the *Wehrbereichskommando* II (local military authorities)

1e Legerkorps, 2.13.148, inv.nr. 188. Luitenant-Kolonel (hoofd sectie G3 1LK) J. C. M. Smits, “vertragend gevecht” (G3/65/73128), 20 April 1965; during the briefing for the logistical exercise LOGPERS for 4 Division’s general staff in May 1967, it was stated that “to the extent we can oversee now, a war in Western Europe can only be fought under nuclear circumstances. [...] we must prepare for a total nuclear war”. NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 552. Luitenant-Kolonel van de Generale Staf Th. J. van Besouw, “Oefening Log Pers verslag” (G4/0035/B/67/Geh), 26 May 1967.

96 NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 521. Generaal-Majoor J. H. Couzy, 4 Divisie, “Vaste orders 4 Divisie”, 1 April 1955.

97 NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 537. Kolonel B. Koning. “Bundels oefening ‘Voorwaarts’”.

98 See on this point Elands et al. *De Geschiedenis van 1 Divisie*, particularly 179–180 and passim; the relationship and reliance on the West German *Wehrbereichskommando* as described is mentioned, for instance, in NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 552. Luitenant-Kolonel van de Generale Staf Th. J. van Besouw, “Oefening Log Pers verslag” (G4/0035/B/67/Geh), 26 May 1967.

for civilian affairs, including the blocking and guiding of refugee flows.⁹⁹ In the first half of the 1960s, the ‘constraints/restraint policy’ was instituted in NATO to limit the destructive effect of TNWs on the surroundings; it placed restrictions on the use of nuclear arms near densely populated areas and required the use of the lowest yield necessary to achieve the intended effect.¹⁰⁰

It is possible that due to the sensitive nature of these matters, sources on ethical, psychological and civilian-related considerations have been destroyed. Still, archival evidence suggests that in the period 1953–1968, the ethical, humanitarian, and psychological aspects of Dutch TNW use were seldomly considered – let alone debated – within the Royal Netherlands Army.¹⁰¹ This was quite in line with the lack of discussion on these matters in the Dutch armed forces as a whole, national politics, and the public.¹⁰² Since it was primarily the responsibility of the Dutch government and politics to set the ethical boundaries on the use of violence, including nuclear arms, there seems to have been little pressure upon the Army in the studied period.¹⁰³ Since TNWs were an American and NATO-matter, the Dutch Army also looked for instructions and guidelines to the US Army and NATO, as well as to the West German authorities, particularly for the (mitigation of) effects upon civilians.

Thirdly, there were military-technical and military-tactical reasons within the brass of the Dutch Army and defence community to doubt the feasibility of tactical nuclear warfare – although these were not always as clear to the public and lower military ranks. Military-intellectual discussions about

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- 99 As stated, for instance, in NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 572. Generaal-Majoor G. H. Christan, 4 Divisie, “Operatiebevel nr.12” (G3/152/-/ZG), 22 July 1963; and NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 573. Christan, “Oefening Colloquium (discussie operatieplannen nr.2 en 3)”. On NATO’s policy to encourage local civilians to stay at home, see also Carter, *Forging the Shield*, 271.
- 100 Luitenant-Kolonel R. J. W. Heslinga, “Problematiek van Kernwapeninzet”, *Militaire Spectator* 133 (5) (1964): 204–210; Kapitein R. C. G. S. Sonnenburg, “Meningen van Anderen. Problematiek van Kernwapeninzet”, *Militaire Spectator* 133 (9) (1964): 449–450. On constraints policy, see for instance Trachtenberg, *A Constructed Peace*, 191, 318–319. For the ‘constraints policy’ in a Royal Netherlands Army document, see for instance NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 573. Christan, “2e wijziging operatieplan nr.3”.
- 101 Heslinga, “Problematiek van Kernwapeninzet”; Sonnenburg, “Meningen van Anderen”. See also for more general information De Geus, *Staatsbelang en Krijgsmacht*, 103.
- 102 Starink, “De Nuclearisering van de Krijgsmacht”, 96–98; Hellema, *Dutch Foreign Policy*, 170–171; De Geus, *Staatsbelang en Krijgsmacht*, 103.
- 103 As, for instance, stated by former Dutch Minister of Defence Pieter de Geus, in: De Geus, *Staatsbelang en Krijgsmacht*, 103. Also stated in relation to Dutch involvement in nuclear artillery in a speech by a member of the army staff in 1958, Majoor van de Generale Staf W. F. G. Stein, “Veldartillerie in Heden en Toekomst”, *Orgaan van de Vereniging ter Beoefening van de Krijgswetenschap* (5) (1957–1958): 145–170.

nuclear offensive and defence tactics took place for instance in the previously mentioned *Militaire Spectator*, but particularly revealing were military exercises. During exercises, the highest commanders and the lowest soldiers in the field were confronted with the fact that the defence plans with intensive use of TNWs, as well as the procedures governing the use of TNWs, regularly worked better on paper than in reality.

Requests for nuclear support – whether prepared or on an ad hoc basis – were to be communicated by commanders in the field, generally a brigade or division commander, with their nuclear support staff to the relevant nuclear artillery units, in a procedure using standardised documents. After the message of nuclear release had been received through NATO's communication channels, the commander of 1(NL)Corps became releasing commander (i.e. the final Dutch military authority over TNW use). The commander of 4 Division (and possibly 1 Division) would then become releasing commander of the TNWs specifically pre-delegated to him. The releasing commander could then approve or deny requests for nuclear support. Requests required detailed calculations relating to the intended and projected effect of the nuclear weapon, including the necessary explosive power (in KT), the distance to target, and the height of the burst. These calculations were intended to ensure the TNW use would achieve the intended effect, but also guarantee the safety of friendly units and the limitation of fall-out to tactically important terrain. Before nuclear support requests could be executed, it had to be made sure that friendly units in the area – Dutch army, allied, and air force units – were outside the 'minimum safe distance' area from the intended 'ground zero', or alternatively were adequately warned to take cover, dig in, or retreat (depending on the proximity to the ground zero, the yield to be used, and their protective facilities like armoured vehicles).¹⁰⁴ By the late 1950s, it had already been noted within 1(NL)Corps that such procedures would cost much valuable time.¹⁰⁵ However, it seems that it was believed within the Dutch army that such problems would be solved, partially with American expertise, and by practising the procedures and warning/self-protection measures. However, in the mid-1960s, it became clear that an adequate artillery preparation and protection of friendly troops required more time than initially hoped – often 30 to 60 minutes for prepared locations, and more than 60 minutes for ad hoc

104 These, and more details on protection and alarm measures against nuclear strikes in 1(NL) Corps can be derived from the documentation in NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 212.

105 For instance, see Daalmeijer, "Wat Iedere (Taktische) Commandant Moet Weten van Taktische Atoomwapens".

targets – as well as significant limitations in yields to be used.¹⁰⁶ Thus, in practice, particularly the safety of own personnel required restraints on the use of TNWs which were noticeable during planning and exercises.¹⁰⁷

Not only did the procedures cause restraints for safety reasons, they also complicated the requests and actual deployment of TNWs. In 1961, the commander of 1 Division concluded after an exercise that with the existing TNW procedures, brigades could not successfully request nuclear support at ad hoc targets from the division artillery. The same applied to requests from divisions to the corps artillery units. Providing the detailed calculations proved problematic, because these depended on the location of the artillery unit, while it proved difficult to keep commanders in the field updated on the changing artillery positions. Moreover, the detailed calculations often proved difficult to produce and took valuable time.¹⁰⁸ The problems surrounding coordination and timely deployment lingered until February 1966, when staff members of 1(NL) Corps, 1 and 4 Division, and the artillery units concluded in a special meeting that, in practice, only requests for nuclear artillery support on prepared targets could meet the safety requirements and calculations while keeping within an acceptable timeframe. However, the restriction to fire nuclear artillery rounds only at ‘designated ground zero’ locations would be far too inflexible for the highly mobile type of warfare expected in the coming conflict. Therefore, the concept ‘nuclear weapon zone’¹⁰⁹ was introduced, and implemented in 1966 for all Dutch nuclear artillery. These zones were essentially pre-planned sectors for TNW use, located at the expected and prepared axes of the enemy’s advance, and where the effect of TNW was expected to be optimal. Nuclear artillery units were prepared to provide rapid nuclear support in these zones upon request; after ‘alert’, the time to fire would be 5 minutes for the 8” howitzer

106 Most importantly, see NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 436. Generaal-Majoor J. A. C. Bartels, 1 Divisie/1 Legerkorps, “Bespreking waarschuwingstijd inzet kernwapens” (NBC/02/67/Geh), 25 October 1967. As noted further above, in 1962, the commander of 1 Division told his superior, the commander of 1(NL) Corps that of the TNWs allocated to 1 Division, the 8” 1,5kT rounds were tactically most important, for reasons of safety of friendly forces. NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 35. Generaal-Majoor E. J. C. van Hoogtem, 1 Divisie, “Bezoek CGS aan staf 1 Div ‘7 Dec” (Kab/64/62/Geh), 23 August 1962.

107 In 1964, a member of the army staff, Heslinga, had already written an unusually critical article in the *Militaire Spectator* about the use of nuclear arms in the tactical context, in which he argued that the procedures – among others required for the safety of friendly troops – were and would remain problematic. Heslinga, “Problematiek van Kernwapeninzet”.

108 NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 400. Generaal-Majoor D. C. de Vries, 1 Divisie, “Verslag oefening ‘Gentleman’s Relish” (G3/329/34/61/Geheim), 5 May 1961.

109 ‘Kernwapengebied’.

and 20 minutes for the HJ.¹¹⁰ Therewith, the precious time lost in sending and processing the nuclear support requests was mitigated.

Still, the procedures did not prevent danger to friendly forces, nor did they completely solve the problems with coordination and calculation – paradoxically, they sometimes even complicated matters. Even though the Dutch nuclear capable artillery units generally performed satisfactorily in exercises and inspections, a view shared by the Americans,¹¹¹ and while 4 Division reported after an exercise in 1964 that the TNW procedures had worked well,¹¹² mistakes and faulty coordination between artillery and field units occurred occasionally during exercises. Already in the 1959 exercise *SIDE STEP*, miscommunication led to the ‘honouring’ of a 2 KT nuclear artillery projectile request with a 17 KT warhead. During the same exercise, pre-planned nuclear support was initiated not before, but after a counterattack.¹¹³ At an exercise in 1966, 1 Division reported that a lack of knowledge or experiences with the mentioned procedures caused the deployment of a (fictional) TNW upon friendly troops, and the submittal of several faulty nuclear support requests, which could not be executed.¹¹⁴ In 1967, 4 Division units crossed terrain (fictitiously) contaminated with fall-out, caused by friendly TNW use, due to poor coordination.¹¹⁵ As such, throughout the 1960s, the actual use of artillery-based TNWs by Dutch forces – particularly against unexpected targets – became significantly restricted by procedures intended to mitigate the risks to friendly troops, but which in practice only partially worked and sometimes even caused dangerous situations rather than prevent them.

Conclusion

This new study of the nuclearisation of the Dutch Army in the context of NATO’s Cold War defences in the European theatre has provided new insights

110 NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 39. Luitenant-Kolonel J. C. M. Smits, 1 Legerkorps, “Verslag Artillerie bespreking 3 februari” (G3/66/21222), 17 February 1966.

111 For instance, see NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 34. Majoor F. Henner, 1 Legerkorps/1 Divisie/4 Divisie, “Jaarverslagen 1960” (G1/5277/B), 1 March 1961.

112 NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 551. Generaal-Majoor G. H. Christan, 4 Divisie, “Eindverslag oefening ‘Varus-Een’” (G3/1585/-/Geh), 3 April 1964.

113 For instance NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 376. Generaal-Majoor D. C. de Vries, 1 Divisie, “Rapport oefening ‘Side Step’” (G1/159/40/59/Geheim), 30 September 1959.

114 NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 400. Staf 1 Divisie, “Verslag oefening ‘Boem-Rang’” (G3/328A/37B/66/Geh), 11 November 1966.

115 NL-HaNA, Staf 1e Legerkorps, 2.13.148, inv.nr. 537. Kolonel J. K. L. Koch, 4 Divisie, “Verslag oefening ‘Edel-Draak’” (G3/00089/H/67/Conf), 3 July 1967.

into the actual planning of tactical nuclear warfare, but also the underlying doubts – and lack of doubts – that were experienced. However, before drawing conclusions, it must first be stated that this study has also revealed that nuclear sharing arrangements at the tactical level already existed within NATO – at least in the Dutch case – before 1959. While the dual key arrangements and the subsequent introduction of nuclear capable weapon systems with US controlled nuclear stockpiles were the most fundamental step in the nuclearisation of the Dutch armed forces, this process had already made significant progress by the mid-1950s.

While NATO was moving towards reliance on nuclear arms on the tactical level between 1953–1957, the Dutch Army prepared for atomic warfare, including potential atomic support to 1(NL)Corps' defences. In 1956, an atomic support plan was drafted, which was approved by NORTHAG and SACEUR, and subsequently officialised in 1957. From then on until the arrival of the MGR-1 Honest John nuclear artillery rockets in the Netherlands, the commander of 1(NL)Corps expected an American nuclear M-65 280mm battery to come under his operational command during wartime. Although many details are unknown about the practicalities and political arrangements of these plans, this conclusion changes our understanding of NATO's tactical nuclear planning, as well as the international political and military history of nuclear sharing.

With the introduction of the nuclear artillery systems in the 1960s, TNWs came to play a crucial role in the plans for the defence of I Netherlands Corps' sector. Halting and eventually destroying a massively superior enemy in terms of conventional strength required significant numbers of both nuclear artillery rounds and atomic demolition charges. With these nuclear means, the advancing enemies would be channelled into concentrated columns, attacked with nuclear arms, and then driven back with a counterattack. Particularly between 1962 and 1965, the Dutch military reliance on TNWs was enormous, but even after the official adoption of flexible response strategy, the Dutch forces ultimately still relied on TNWs to stop an all-out Warsaw Pact attack.

However, throughout the 1960s, doubts grew within the top of the Royal Netherlands Army about this reliance on TNWs, for three main reasons. Firstly, due to Soviet advances in nuclear technology and the significant expansion of TNW arsenals on both sides, the American nuclear hegemony decreased. NATO's defence with TNWs had been based on this hegemony, and now, the political perception of TNWs changed from strong support to conventional forces, to politically sensitive weapons which might trigger total nuclear war. With the Americans advocating flexible response, the question became whether and when the Americans and NATO would release the TNWs. However, there was no feasible alternative for TNWs; even though political leaders voiced their

intentions to decrease the reliance on TNWs in the late 1960s, the conventional advantage of the Warsaw Pact adversaries was such, that TNWs would ultimately still be necessary to counter an attack on the Dutch sector. Secondly, tactical and technical issues significantly restricted the crucial use of TNWs. Procedures and calculations governed the nuclear support requests and execution of nuclear fire missions, with the aims of protecting friendly troops, rendering the TNW's intended effect optimal, and limiting the lethal effects on civilians and civil objects. However, these procedures, as well as inherent practical difficulties with coordination between artillery and units in the field, put significant restrictions on the use of TNWs, which were noticeable to the Dutch war planners and to commanders during exercises.

Yet, ethical, humanitarian, and psychological considerations surrounding the planned widespread use of nuclear arms in allied areas – often relatively close to civilians – seem rarely to have been discussed. Dutch Army leaders primarily looked to the politicians to determine the boundaries of ethically acceptable forms of warfare, while NATO guidelines and West German civil authorities also played a role in mitigating the potentially disastrous effects of TNW use in West Germany.

All in all, speculation remains as to whether the described operational plans – including crucial nuclear weapons deployment – would actually have been implemented at the outbreak of war.

Bibliography

- Bacevich, Andrew J. *The Pentomic Era: The US Army Between Korea and Vietnam* (Washington, DC: National Defense University Press, 1986).
- Bloem, D. J. et al. *Nederland en de Kernwapens. Een Studie over het Nederlands Nucleair Beleid 1972–1985* (Alphen aan de Rijn/Brussels: Samsom Uitgeverij, 1987).
- Burr, William, and David Rosenberg. "Nuclear Competition in an Era of Stalemate, 1963–1975." In *The Cambridge History of the Cold War, Vol 2: Crises and Détente*, eds. Melvyn P. Leffler and Odd Arne Westad (Cambridge: Cambridge University Press, 2010), 88–111.
- Carter, Donald A. *Forging the Shield: The U.S. Army in Europe, 1951–1962* (Washington, DC: Center of Military History, 2015).
- Carter, Donald A. "War Games in Europe: The U.S. Army Experiments with Atomic Doctrine." In *Blueprints for Battle*, eds. Hoffenaar and Krüger, (2012) 131–154.
- Diedrich, Torsten. "The German Democratic Republic." In *Blueprints for Battle*, eds. Hoffenaar and Krüger, (2012) 175–202.
- Elands, Martin, Richard van Gils, and Ben Schoenmaker. *De Geschiedenis van 1 Divisie '7 December' 1946–1996* (The Hague: SDU, 1996).

- Elands, Martin, Joep van Hoof, Christ Klep, and H. Roozenbeek. *250 Jaar Genietroepen 1748–1998* (The Hague: SDU, 1998).
- Geus, P. B. R. de. *Staatsbelang en Krijgsmacht. De Nederlandse Defensie tijdens de Koude Oorlog* (The Hague: SDU, 1998).
- Hammerich, Helmut. "Fighting for the Heart of Germany: German I Corps and NATO's Plans for the Defense of the North German Plain in the 1960s." In *Blueprints for Battle*, eds. Hoffenaar and Krüger, (2012) 155–174.
- Harst, Jan van der. *The Atlantic Priority: Dutch Defence Policy at the Time of the European Defence Community* (Florence: European Press Academic Publishing, 2003).
- Hellema, Duco. *Dutch Foreign Policy: The Role of the Netherlands in World Politics* (Dordrecht: Republic of Letters, 2009).
- Hellendoorn, Elmar. "Between the Devil and the Deep Sea: The Netherlands and the Struggle for European Nuclear Order, 1954–1966" (PhD thesis Utrecht University, 2016).
- Hoffenaar, Jan. "The Dutch Contribution to the Defense of the Central Sector." In *Blueprints for Battle*, eds. Hoffenaar and Krüger, (2012) 217–238.
- Hoffenaar, Jan. "'Hannibal ante Portas': The Russian Military Threat and the Build-up of the Dutch Armed Forces, 1945–1958." *Journal of Military History* 66 (2002), 163–191.
- Hoffenaar, Jan, and Ben Schoenmaker. *Met de Blik naar het Oosten. De Koninklijke Landmacht 1945–1990* (The Hague: SDU, 1994).
- Hoffenaar, Jan, and Dieter Krüger, eds. *Blueprints for Battle: Planning for War in Central Europe 1948–1968* (Lexington, KY: University Press of Kentucky, 2012).
- Hoffenaar, Jan, Joep van Hoof, and Jaap de Moor. *Vuur in Beweging. 325 Jaar Veldartillerie 1677–2002* (Amsterdam: Boom, 2002).
- Holloway, David. "Nuclear Weapons and the Escalation of the Cold War, 1945–1962." In *The Cambridge History of the Cold War, Vol 2: Origins*, eds. Melvyn P. Leffler and Odd Arne Westad (Cambridge: Cambridge University Press, 2010), 376–397.
- Kaplan, Lawrence S. "Strategic Problems and the Central Sector, 1948–1968: An Overview." In *Blueprints for Battle*, eds. Hoffenaar and Krüger, 5–20.
- Linn, Brian McAllister. *Elvis's Army: Cold War GIs and the Atomic Battlefield* (Cambridge, MA: Harvard University Press, 2016).
- Nash, Philip. "Bear Any Burden? John F. Kennedy and Nuclear Weapons." In *Cold War Statesmen Confront the Bomb: Nuclear Diplomacy since 1945*, eds. John Lewis Gaddis, Philip H. Gordon, Ernest R. May, and Jonathan Rosenberg (New York: Oxford University Press, 1999).
- Starink, Dirk. "De Nuclearisering van de Krijgsmacht." In *In de Schaduw van de Muur. Maatschappij en Krijgsmacht rond 1960*, eds. Ben Schoenmaker and Jan Janssen (The Hague: SDU, 1997).
- Schoonoord D. C. L. *Pugno Pro Patria. De Koninklijke Marine tijdens de Koude Oorlog* (Franeker: Uitgeverij Van Wijnen, 2012).

- Trachtenberg, Marc. *History and Strategy* (Princeton, NJ: Princeton University Press, 1991).
- Trachtenberg, Marc. *A Constructed Peace: The Making of the European Settlement 1945–1963* (Princeton, NJ: Princeton University Press, 1999).
- Trauschweizer, Ingo. *The Cold War U.S. Army: Building Deterrence for Limited War* (Lawrence, KS: University Press of Kansas, 2008).
- Vegt, Quirijn van der. *Take-off: De Opbouw van de Nederlandse Luchtstrijdkrachten, 1945–1973* (Amsterdam: Boom, 2013).
- Wampler, Richard A. *NATO Strategic Planning and Nuclear Weapons 1950–1957* (Nuclear History Program Occasional Paper 6) (College Park, MD: University of Maryland Press, 1990).