

U.S. Nuclear Weapons in Europe After the Cold War

**Presentation To:
Nuclear Proliferation: History and Current Problems
Florence, Italy, October 4-5, 2007**

By

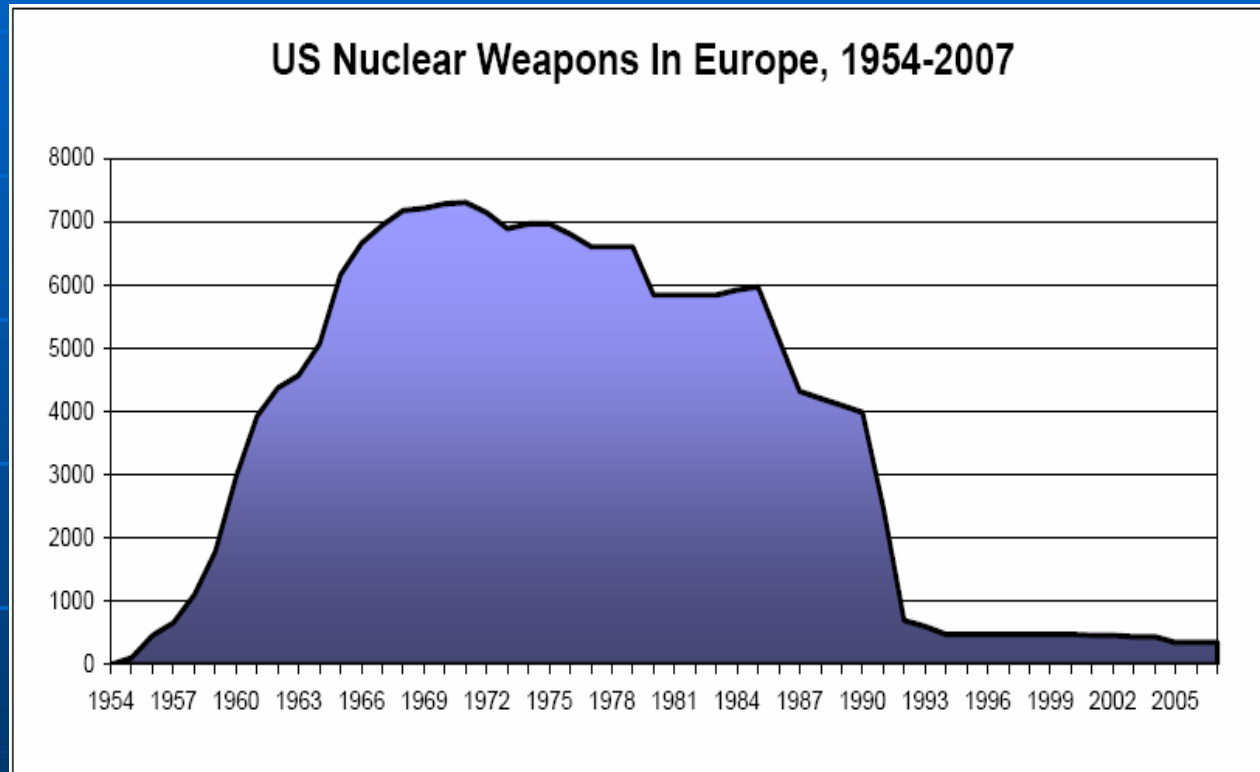
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Overview

- History of US nuclear weapons deployment in Europe
- Current deployment
- Base profile (Italy)
- The mission
- Nuclear sharing
- Implications of continued deployment

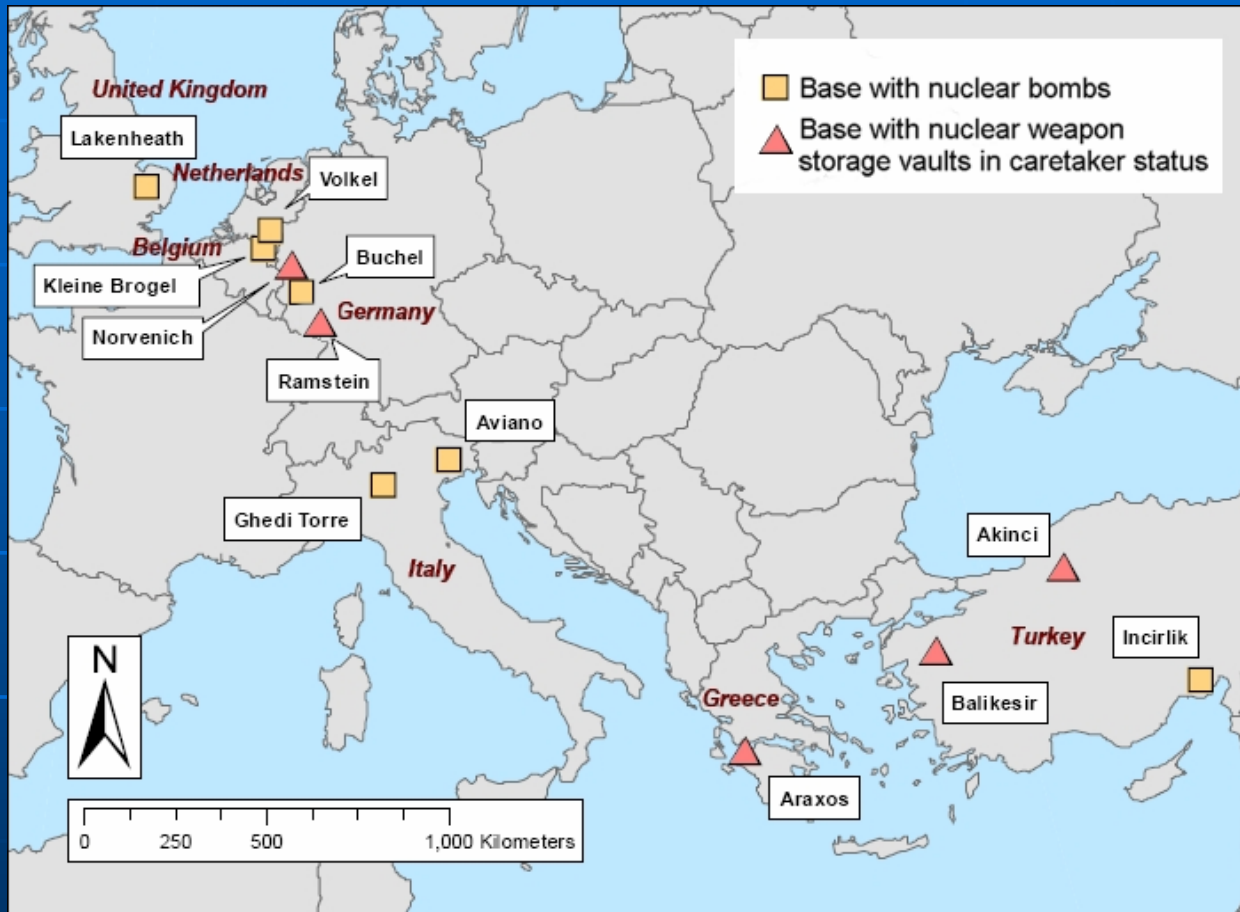
Note: Many documents and images used in this briefing are available online at <http://www.nukestrat.com/us/afn/nato.htm>

History of US Nuclear Weapons in Europe



- 53-year deployment
- Peak of 7,300 weapons in 1971
- Reductions since 1971; most dramatic in 79-80, 85-86 and 91-93
- Always unilateral
- Non-strategic always outside arms control
- No new initiatives since 1993
- 2005 Ramstein withdrawal unilateral

Current Deployment



- Total nuclear bombs:
 - “several hundred”
 - My estimate: 350
- Widespread deployment to 7 bases in 6 countries
- 5 other bases have vaults in caretaker status
- 5 non-nuclear countries assigned nuclear strike mission
- “No intension, no plan, and no reason to deploy nuclear weapons on the territory of new member countries”
- Staging basing option

Current Deployment

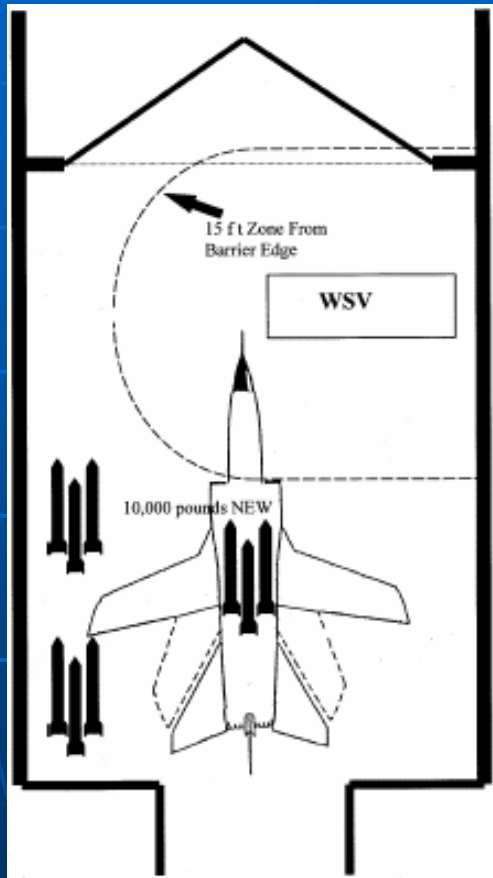
Estimated U.S. Nuclear Weapons in Europe			
<u>Country</u>	<u>Air Base</u>	<u>2005</u>	<u>2007</u>
Belgium	Kleine Brogel	20	20
Germany	Büchel	20	20
	Nörvenich*	0	0
	Ramstein	90	0
	Spangdahlem**	0	0
Italy	Aviano	50	50
	Ghedi Torre	40	40
Netherlands	Volkel	20	20
Turkey	Akinci	0	0
	Balikesir	0	0
	Incirlik	90***	90***
United Kingdom	Lakenheath	110	110
	Total	440	350
<p>* Weapons for the 31st Wing at Nörvenich Air Base have been stored at Ramstein Air Base since 1995, but with the apparent removal of nuclear weapons from Ramstein the wing's nuclear mission now seems in doubt.</p> <p>** Spangdahlem Air base has a nuclear command and control mission, but does not store nuclear weapons.</p> <p>** Forty of the bombs at Incirlik Air base may be earmarked for use by Turkish F-16s based at Balikesir and Akinci air bases.</p>			

Current Deployment

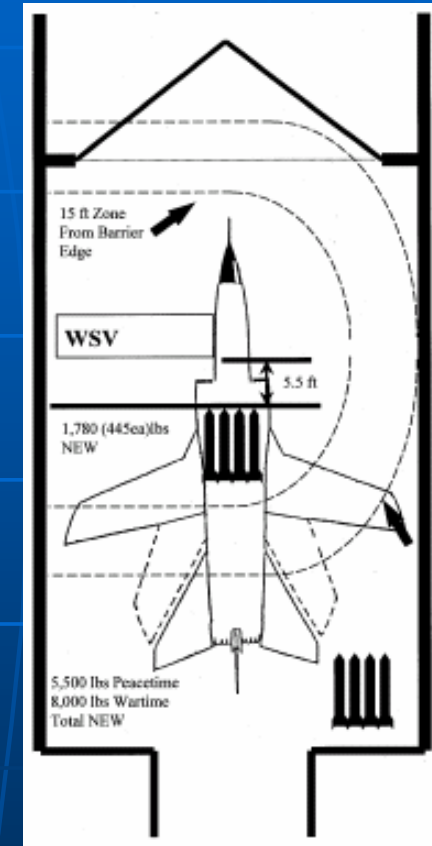


- All B61-3/4 Mod bombs
- B61-10 transferred to inactive stockpile in 2005
- Possibly inactive bombs
- All weapons were modernized in 1998-2003: added surety and employment systems
- New trainer (B61-4 Type 3E) deployed from December 2001: 3 at Aviano, 6 at Ghedi
- Tomahawk SLCM and Trident support
- B61-11 earth-penetrator is *not* deployed in Europe, despite rumors

Nuclear Logistics: PAS



- Location of Weapons Storage Vaults in Protective Aircraft Shelters (PAS)
- USAF documents show two PAS configurations
- Limitations on number of conventional weapons in PAS with nukes
- Satellite images show mainly two PAS sizes:
 - ~ 37.5 x 23 m
 - ~ 31.5 x 17 m



Nuclear Logistics: WS3

Weapons Storage and Security System (WS3)



- Underground vaults
- Built 1990-1998
- Intended for storage of B61, WE-177 and W80 (GLCM)
- 4 bombs max in each
- Training only with “dummies”
- War Reserve weapons not moved unless service, risk, withdrawal or war

Nuclear Logistics: WS3

Weapons Storage and Security System (WS3)

Country	Base	WSV	Max. Capacity
Belgium	Kleine Brogel AB	11	44
Germany ^a	Büchel AB	11	44
	Nörvenich AB ^b	11	44
	Ramstein AB ^b	55 ^c	220
Greece	Araxos AB ^b	6	24
Italy	Aviano AB	18	72
	Ghedi Torre AB	11	44
Netherlands	Volkel AB	11	44
Turkey	Akinci AB ^b	6	24
	Balikesir AB ^b	6	24
	Incirlik AB	25	100
United Kingdom	RAF Lakenheath	33	132
Total		204	816

^a The German air base at Memmingen was closed in 2003.

^b The vaults at these bases are in caretaker status with no weapons.

^c One of these is thought to be a training vault.

Nuclear Logistics: WMT



- B61 bombs are partially disassembled inside WMT (→) or next to it inside PAS (↑)

- 14 WMT trucks total
- Provide on-site maintenance and repair to B61 bombs
- Established in 1991 as part of the Regionalized Nuclear Weapons Maintenance Concept



Nuclear Logistics: WMT



- April 1997: USAF safety review found that during maintenance of B61 bombs:

“It cannot be assured that the B61 meets military characteristics (MC) requirements in abnormal environments when the electrical regions are breached and the nuclear systems remain functional. Under these conditions, *nuclear detonation may occur* if energy capable of initiating the nuclear system is present.”

Base Profiles: Aviano Air Base



- 50 B61 bombs for use by US F-16s of the 31st Fighter Wing
 - 49 PAS total (35 large and 14 smaller)
 - 18 PAS with nuclear vaults
 - Max capacity: 72 weapons
-
- Satellite image (2005) shows possible weapons maintenance truck (WMT) in front of protective aircraft shelter (→)

Base Profiles: Aviano Air Base



- WS3 maintenance instruction updated 2006
- Nuclear Security Inspection in 2007 (↔)
- NATO Tactical Evaluation in 2007 (↓)



Base Profiles: Ghedi Torre Air Base



- 40 B61 bombs for use by Italian PA-200 Tornados of the 6th Wing (102 and 152 Squadrons)
- 22 PAS total
- 11 PAS with nuclear vaults
- Max capacity: 44 weapons
- US 704 MUNSS (custodians)
- Nuclear since December 1963



Base Profiles: Ghedi Torre Air Base



- PA-200 Tornado fighter-bomber of the 6th Wing's 102nd Squadron (↔)
- B61 nuclear weapons training of 704 MUNSS personnel inside WMT at Ghedi Torre Air Base (↗)



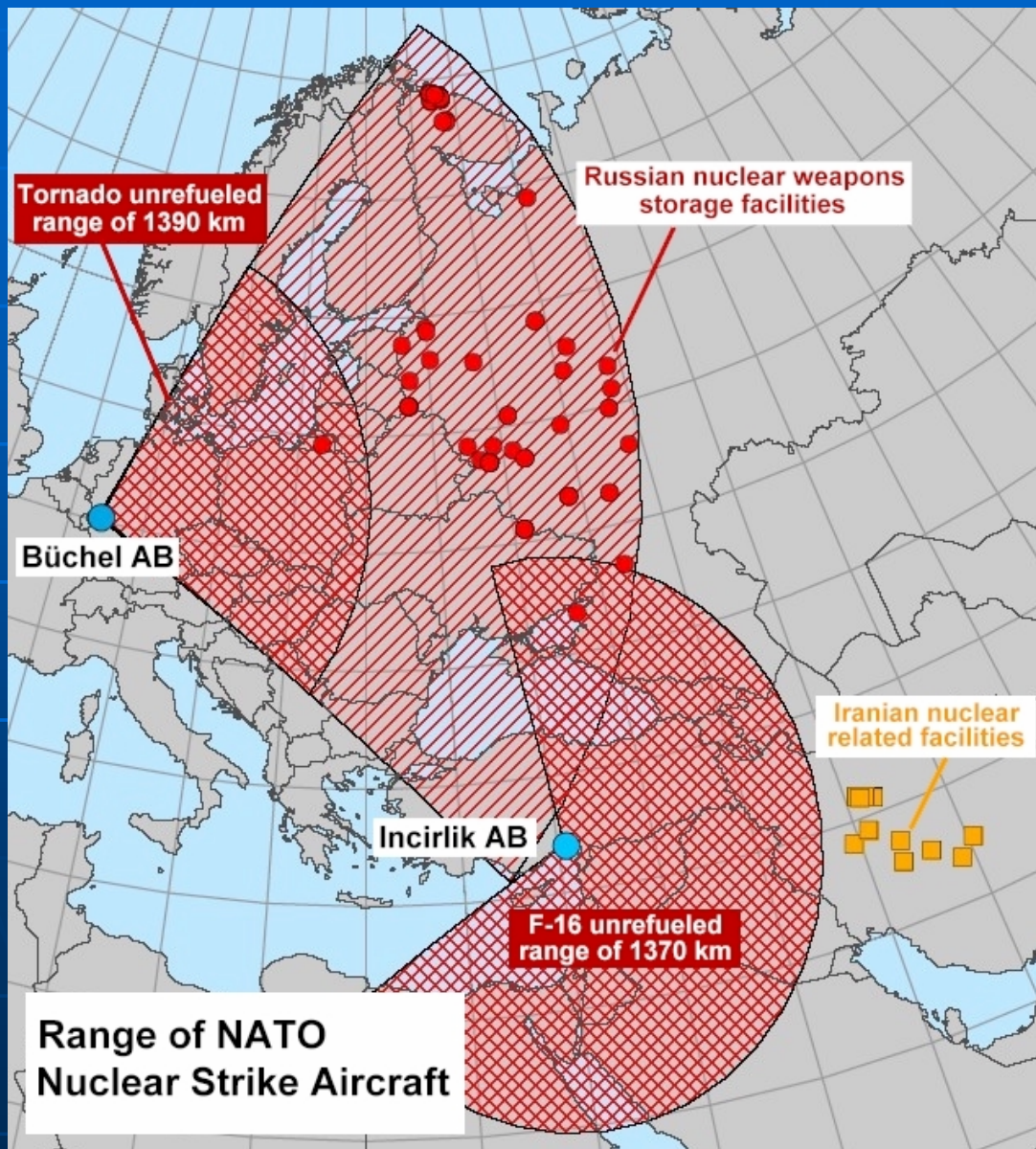
The Mission

NATO: The “fundamental purpose” of NATO’s nuclear forces is to “preserve peace and prevent coercion and *any kind of war.*” They “create real uncertainty for any country that might contemplate seeking political or military advantage through the threat or use of *weapons of mass destruction* against the Alliance.” (emphasis added)

Three justifications are frequently used:

- Strategic: Russia has a lot of non-strategic nuclear weapons and could potentially turn bad
- Counterproliferation: Other countries on NATO’s southern periphery (Syria and Iran) are developing weapons of mass destruction (nuclear, chemical, biological)
- Political: Symbol of continued US commitment to NATO; provides assurance and trans-Atlantic glue

The Mission: Possible Targets



- NATO says its nukes are:
 - “no longer targeted against any country”
 - “no longer directed towards a specific threat”
 - and there are “no pre-planned targets”
- Yet target planning continues as contingency planning against WMD targets of all potential adversaries
- Aircraft ranges give some hints
- With refueling, PA-200 Tornado from Büchel or Ghedi can reach deep inside Russia
- F-16s from Incirlik can reach into Southern Russia, Syria, and Iran

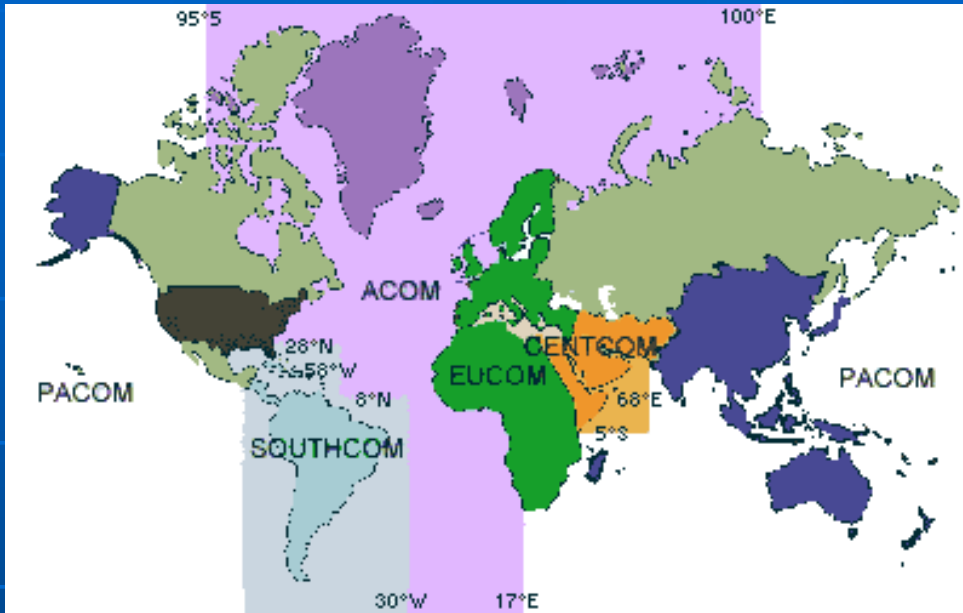
The Mission: Russia

USCINCEUR on nuclear aircraft readiness requirements
(December 1997; still representative):

- “Russian tactical nuclear weapons and the doctrine to employ them remain a threat to NATO.”
- “Russia maintains at least a 3 to 1 advantage in tactical nuclear weapons as compared to the US and a vastly greater advantage over NATO.” (~2,300 weapons)
- “The Russians enjoy a near 40 to 1 advantage in delivery systems.” (NATO 2; Russia 80)
- “Significantly, Russian tactics have evolved to lean more heavily than before on tactical nuclear weapons as their conventional force effectiveness has declined.”

Only change: Russia not an “immediate contingency” but a potential contingency (2001 Nuclear Posture Review)

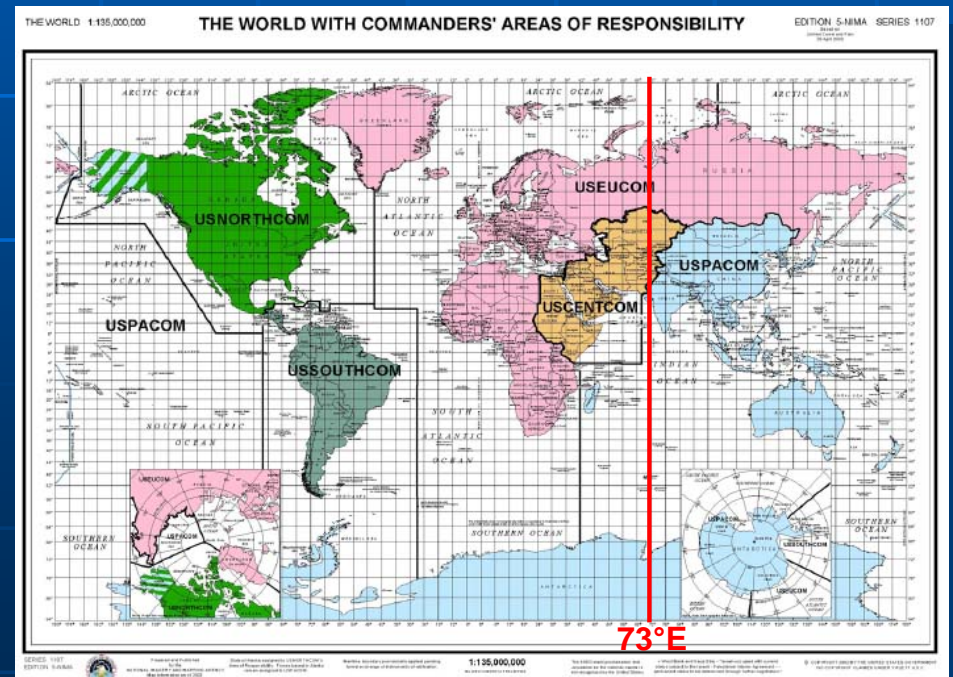
The Mission: Russia



Significant expansion of EUCOM area:

- 1990s (left): EUCOM area of responsibility (↔)
- Since 2001 (right): EUCOM area of responsibility now includes all of Russia (↓)

- July 2004: US makes SIOP (OPLAN 8044) targeting data east of 73rd longitude available to SACEUR, non-US SHAPE personnel and UK Trident planning
- Long-range NATO targeting



The Mission: Counterproliferation

USCINCEUR on nuclear aircraft readiness requirements
(December 1997; still representative):

“The proliferation of weapons of mass destruction by states within the EUCOM AOR/AOI and their ability to target the capitals of Europe is of growing concern.”

WMD means nuclear, chemical, biological weapons, and in the US also radiological, conventional high-explosive weapons and ballistic missiles; *very broad terminology*

Use of “WMD” (versus only “nuclear”) means much broader mission both in terms of potential adversaries and the targets and strike plans military planners have to prepare to ensure “credible deterrent”

The Mission: Counterproliferation

Arrangements for use of EUCOM aircraft and weapons *outside* EUCOM area (Europe/Russia) were made in 1990s:

DEPARTMENT OF DEFENSE
UNITED STATES STRATEGIC COMMAND

MEMORANDUM FOR THE RECORD

Subject: NSNF Working Group Meeting Minutes

29 Mar 94

(U) JSCP Annex C guidance governing the theater CINC's requirements when requesting preplanned targeting outside their own AOR is necessary. Action: Provide draft guidance for inclusion into Change 4 to JSCP Annex C. OPR: J513, CDF [redacted] Due: 4 Apr 94.

10 May 94

(7) (U) It was agreed that centralized PAL management discussed in the Theater Nuclear support model could be implemented in the short-term with the exchange of PAL materials between STRATCOM and EUCOM (for missions not executed from CINCEUR's AOR using CINCEUR delivery platforms/weapons).

Partially declassified and released under the Freedom of Information Act.

Expanded mission: EUCOM now supports CENTCOM nuclear mission (Iran, Syria, "n"); preparing ground for nuclear umbrella in Middle East?

The Mission: Political (Institutional)

NATO's 1999 Strategic Concept (still in effect):

“Nuclear forces based in Europe and committed to NATO provide an essential political and military link between the European and the North American members of the alliance.”

June 2007 NATO Nuclear Planning Group:

“We continue to place great value on the nuclear forces based in Europe and committed to NATO, which provide an essential political and military link between the European and North American members of the Alliance.”

Reassurance: extended deterrence (nuclear umbrella) means Allied countries don't see need to develop nuclear weapons themselves; but forward deployment unnecessary (Japan/Korea)

Nuclear Sharing

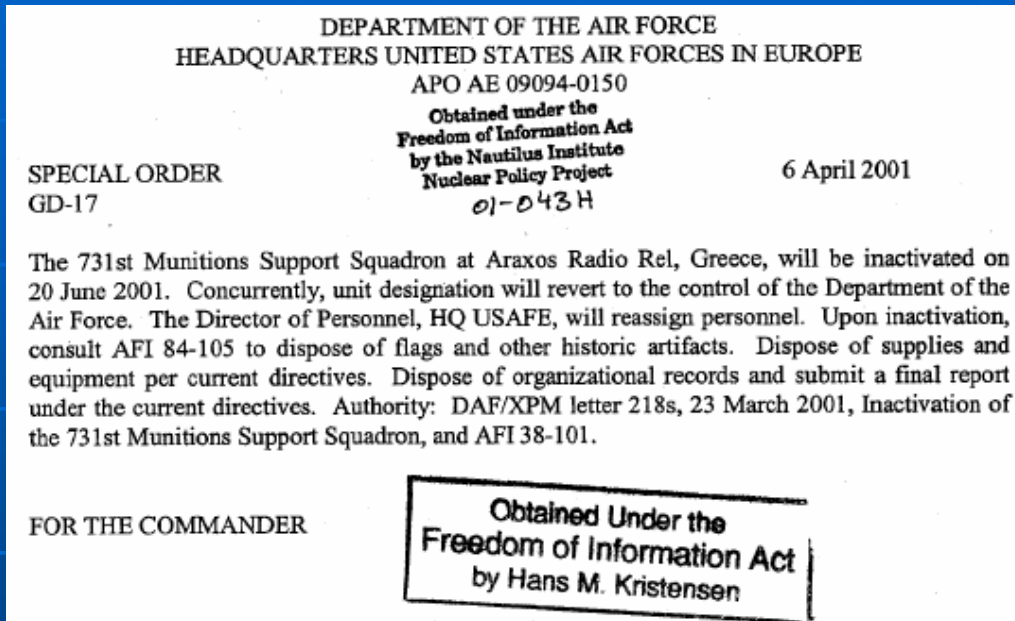


- 5 non-nuclear NATO countries have nuclear strike mission; surrogate nuclear weapon states
- Italian Tornados (102 and 154 squadrons) of 6th Stormo (Wing)
- In a war 704 MUNSS would release B61s to Italian pilots; Italy becomes a nuclear weapon state
- Codename: Stone Ax

- Comparison: Russia deploys nuclear bombs to Iran, equips Iranian planes, and trains Iranian pilots to use the bombs in wartime



Nuclear Sharing



Special Order issued by US Air Force Europe on 6 April 2001 directing the inactivation of the 731st Munitions Support Squadron nuclear weapons custodial unit at Araxos Air Base in Greece by June 2001.

- Indications that nuclear sharing is fading out:
 - Quiet removal of nuclear weapons from Greece in 2001; follows Canada in 1984
 - Belgium and Germany have indicated nukes should go
 - Fighter-bomber modernization in Belgium, Germany, Italy, Netherlands and Turkey could lead to end of nuclear sharing within a decade
- Shows that host nations can safely withdraw from nuclear mission with no negative consequences for NATO's security or unity

Implications of Continued Deployment

- Perpetuates Cold War deterrence relationship between Russia and NATO/United States when none is necessary
- Prevents progress on addressing non-strategic nuclear weapons issue; Russian officials frequently point to NATO nukes as justification for their own posture or obstacles to talks
- Undercuts US/European efforts to persuade Iran to abandon nuclear weapons by creating double standard
- Inconsistent with articles I, II, and VI of the NPT
- Contradicts “additional steps” from 2000 NPT review conference and 2004 U.N. resolution 59-76 to reduce non-strategic nuclear weapons
- It is unnecessary; nuclear bombs can be delivered from the US or redeployed to Europe in a crisis, and British Trident submarines have “substrategic” mission in support of NATO
- Competes with non-nuclear mission for Air Force resources

Implications of Continued Deployment

Disconnect From Real-World Priorities

Missions / Roles	Policy Priorities
<p>Deterring / hedging against Russia</p> <ul style="list-style-type: none">- They have more weapons- Increase role (even first use)- Russia could turn bad	<p>Normalize relations with Russia</p> <ul style="list-style-type: none">- Achieve reductions in NSNF- Secure remaining weapons- Remove justification for status quo
<p>Counterproliferation</p> <ul style="list-style-type: none">- “WMD” rather than “nuclear”- Iran, Syria, “n”- Plan for “end of non-use”	<p>Nonproliferation</p> <ul style="list-style-type: none">- Reduce role / prominence- Strengthen non-military NPT efforts- Prevent “end of non-use” slide
<p>Policy / institutional</p> <ul style="list-style-type: none">- Trans-Atlantic glue- Widespread deployment- European influence on planning- Tradition / Inertia	<p>Alliance transformation</p> <ul style="list-style-type: none">- Ensure <i>future</i> of NATO- Reduce locations / increase security- Influence on <i>real-world</i> planning- “Old Europe” vs. “new NATO”