

Nuke Posture review and ICNND on Operational readiness of Nuclear Weapons

Written by John Hallam
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Taking the Apocalypse off the Agenda: NPR and ICNND on Nuclear Weapons Operational Readiness

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— Resolutions on operational readiness or operating status of strategic nuclear weapon systems have been adopted by the United Nations for a number of years now, with India's resolution on Reducing Nuclear Dangers and more recently and with a bit more fanfare, the 'Operational Readiness of Nuclear Weapons Systems' resolution sponsored by Chile, Malaysia, New Zealand, Nigeria, Sweden and Switzerland, in response to the Blix report and an NGO appeal signed by 44 nobels.

I note also the excellent working paper submitted by these six governments, as well as working papers submitted from time to time by both India, Switzerland, Sweden, the New Agenda Group, and others. I believe this working paper points a practical way forward with this issue.

A very important workshop sponsored by the Swiss and the New Zealand Governments and by the East-West Institute at Yverdon Les Bains near Geneva, entitled 'Re-Framing De-Alert', discussed how to lower the state of operational readiness of US and Russian nuclear arsenals. That workshop was attended by a range of US and Russian military representatives, of various points of view, think - tank, and academic, people, notably General Eugene Habinger, former chief of STRATCOM and now at Georgia university.

The balanced and detailed report from that workshop was released last October at First Committee.

Why the fuss about operational readiness, which sounds like just another part of the alphabet soup of technical - sounding measures that have to be taken to get rid of nuclear weapons?

Why for example, did the ICNND pay such attention to it and write about it in so much detail? Why is the NPR littered with traces of what has seemingly been a hard-fought bureaucratic battleground and why has the NPR finally simply fudged the issue?

It is worth recalling that President Obama said during the campaign that "[K]eeping nuclear weapons ready to launch on a moment's notice is a dangerous relic of the Cold War. Such policies increase the risk of catastrophic accidents or miscalculation,"

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The US and Russia, in spite of the supposed end of the cold war in 1990, continue to maintain some thousands of nuclear warheads in a status such that they can be launched relatively quickly - some within less than 2 minutes, others within 10 minutes. Both President Obama and President Medvedev are at all times shadowed by someone with a briefcase from which either president can - in theory anyway - order a nuclear strike at any time.

This essentially cold - war practice has been unchanged since the 1960s, or rather the only changes have been in the technical sophistication of the nuclear 'briefcase', that is supposed to be within eyesight of the Presidents of Russia and the US at all times.

The ICNND paid more attention to the issue of operational readiness than to practically any other strategic-stability-related issue, and seems to have very much taken on board arguments that Steve and I presented to them. Those arguments clearly found an echo in senior policymakers (notably William Perry) who were part of the commission.

The ICNND says all that I would want to say myself on alert status, and says it in detail. It notes that:

"..... the U.S. and Russia each have over 2,000 weapons on dangerously high alert, ready to be launched immediately - within a decision window of just 4-8 minutes for each president - in the event of perceived attack. The command and control systems of the Cold War years were repeatedly strained by mistakes and false alarms. With more nuclear-armed states now, and more system vulnerabilities, the near miracle of no nuclear exchange cannot continue in perpetuity." [Section 2]

"-Force Deployment and Alert Status. Changes should be made as soon as possible to ensure that, while remaining demonstrably survivable to a disarming first strike, nuclear forces are not instantly useable. Stability should be maximised by deployments and launch alert status being transparent. [ICNND 7.12-15; 17.40-50]

-The decision-making fuse for the launch of any nuclear weapons must be lengthened, and weapons taken off launch-on-warning alert as soon as possible. [ICNND17.43]"

The ICNND continues:

"most extraordinarily of all, over 2000 of the US and Russian weapons remain on dangerously high alert, ready to be launched on warning in the event of a perceived attack, within a decision window for each country's President, of four to eight minutes. [in some situations, zero minutes - jh] We know that there were many occasions when the very sophisticated command and control systems of the cold war years were strained by mistakes and false alarms. We know how destructive cyber attacks on defence systems could be with today's sophisticated technology- and can guess how much more so such attacks might be in the future. It is hard to believe that the luck of the cold war - the near miracle of no nuclear exchange - can continue in perpetuity.'[ICNND 1.4 p3]

and still more seriously and in detail:

'2.39 - Strategists and operation planners usually make a distinction between short-notice alert and launch-on-warning(LOW) or Launch under attack (LUA) policy, (also popularly if

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inaccurately described as 'hair-trigger-alert'.) The former relates to all combat-ready weapons, that MAY be launched quickly (in a few minutes) after receiving the order, primarily ICBM, and SLBMs at sea.(as per the NPR - JH)

The latter is associated with weapons that MUST be launched quickly upon receiving information about an opponent's attack in order to avoid destruction on the ground. With ICBM flight time being about 30 minutes and SLBM fifteen to twenty minutes, LOW provides political leaders with decision - making time of only four to eight minutes (after deducting time for missile attack detection and confirmation, and the time for the response launch sequence and fly-away.) And this time would be available only if the leaders are safe and ready, and everything works perfectly according to planned procedures. Russian strategic doctrine relies on LOW; the US, while not relying on it, maintains the policy. It places a premium on the quality of warning systems, which have not always been reliable in the past. Former defence secretary William Perry, a member of this commission, directly recalls three major such experiences, one of them involving NORAD computers indicating that 200 ICBMs were on their way from the USSR to the US. The prospect that a catastrophic nuclear exchange could be triggered by a false alarm is fearful and not fanciful . (emphasis mine-JH)

It beggars belief, that these grave (and detailed and lengthy) warnings by the ICNND are dismissed by some lobbyists (such as Peter Huessy of Geostrategic Analysis) as 'not credible'. Those who dismiss these ICNND warnings damage not the credibility of the ICNND, but merely their own. Let us hope they are not believed.

At the same time, the length and detail of ICNND's analysis of the issue of operational readiness indicates just how seriously it really does take this issue - also the reason I have quoted them in such detail.

What the ICNND does not immediately make clear (though it is implicit in what is said, and was I think understood quite clearly by them) was that the very core of the problem is that in a crisis, decisions are going to be taken by Presidents (or possibly military chiefs) who have been woken at 3am or who are in command bunkers with people shouting across the room at them and sirens wailing, while Presidents are bundled by panic- stricken aides into doomsday bunkers or airplanes. The quality of decision-making by the very best of people is unlikely to be good. We do not need to postulate decisions being made by lunatics though this too is a possibility: All we need to know is that in an impossible decision-making environment with impossible constraints on time and false data, mistakes - possibly utterly terminal ones - are likely to be made even by the most rational of decision-makers..

Pentagon claims (from Chilton and others) that its ICBMs are 'not on hairtrigger alert' are a muddying of the waters, revolving around reinterpretation's of what is meant by the term 'hair trigger'. That both the US and Russia maintain nuclear weapons systems in a state in which they can respond very quickly has never been open to honest doubt. In fact, the 'de-alerting' side of the debate has been very deliberately avoiding the term 'hair trigger' precisely because of its mis-use by the anti-de-alerting side. Steve's article on definitions and the 're-framing de-alert' paper offer excellent correctives, as does Bruce Blair's riposte to the Bush admins disingenuous statement to the First Committee when the issue came up in Oct 2007.

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The recent nuclear posture review thankfully laid the huffing and puffing over whether US ICBMs are in fact on alert, by saying that:

'The NPR examined possible adjustments to the current alert posture of U.S. strategic forces. Today, U.S. nuclear-capable heavy bombers are off full-time alert, nearly all ICBMs remain on alert, and a significant number of SSBNs are at sea at any given time. The NPR concluded that this posture should be maintained.'

While the last sentence is unfortunate to put it mildly, the NPR does reaffirm the correctness of what everyone has been saying all along about US nuclear posture, namely that the silo-based US ICBM force is indeed maintained 'on alert'. The alert status that the NPR acknowledges is exactly what everybody from the ICNND to Steve and myself has been saying all along that it was and is. Statements by former Bush administration officials and some military that this is not so should be put decisively to rest. Contrast the NPRs clear statements as to the actual alert status of US nuclear forces - which turn out to be exactly what we all thought they were/are - with statements from various quarters that US nuclear forces 'are not on alert'.

The problem with having a system primed for such a quick response is not so much that 'rogue commanders' might fire one or two shots, or that computer error or equipment malfunction might fire one or two, (though that has nearly taken place at least twice that we know of, most notably in 1979 when a practice launch sequence went out of control, turned into the real thing and would not stop. In this event the situation was saved by the launch control officer who ordered heavy military vehicles driven on top of silo doors to make a launch physically impossible. A similar event is said to have taken place in the 1980s.).

The real problem is rather that, with response times so tight, Presidents and senior military may have minutes to make decisions of utterly apocalyptic significance involving between hundreds, and thousands, of warheads.. If those decisions turn out to be based on honestly believed, seemingly credible, but actually completely false data, it is too late to recall the missiles and not possible to abort their missions. It is noteworthy that the NPR does wax eloquent about the need to increase presidential decisionmaking time, which is precisely what lowering operational readiness is all about.:

"Maximising decision time for the President can further strengthen strategic stability at lower force levels. Thus, the NPR considered changes to existing nuclear policies and postures that directly affect potential crisis stability, including alert postures and the Nuclear Command, Control, and Communication (NC3) system."

and: (A bit more hopefully):

"... the NPR-initiated studies that may lead to future reductions in alert posture. For example, in an initial study of possible follow-on systems to the Minuteman III ICBM force, the Department of Defence will explore whether new modes of basing may ensure the survivability of this leg of the Triad while eliminating or reducing incentives for prompt launch."(emphasis mine)

Survivability was repeatedly mentioned in the Yverdon Les Bains workshop as a major factor in going to lower force postures.

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The NPR repeatedly emphasises the need to maximise Presidential decision-making time, 'by strengthening nuclear command, control and communications', yet it is hard (in my view impossible) to see just how it can do that while maintaining not just capabilities but crisis management procedures that involve a quick response. And in this situation, the mere existence of the capability mandates Presidential decisions - at least a presidential decision NOT to use it - in a highly compressed timeframe in which the pressure on the President will be to go ahead and use it.

At the very least, the Presidents of Russia and the US need more time than 8 minutes preceded by a 30 second briefing from STRATCOM to decide on the launch of large numbers of nuclear warheads. This is a far more pressing issue (involving as it does the potential use of the core strategic inventory or the on-alert ICBM forces of the US or Russia) than the possibility of 'rogue launches', (to which the NPR pays considerable attention) though this too is significant.

The reason given by the NPR finally for NOT going to lower alert postures was that during a crisis, there might be a 're-alerting race', between the two sides. The examination of this problem at the Yverdon Les Bains workshop gives no substantial grounds for this assertion, which is a bit like saying that when you have two gunmen with cocked pistols pointed at each other they should never ever uncock the pistols or put them down in case there was a 're-alerting race'. In fact it is clear that notwithstanding any suspicions that might linger between the gunmen, and even notwithstanding the fact that in a subsequent dispute pistols might again be brandished, we are clearly and unambiguously better off with the pistols safely away and uncocked. (and in this case this remains so regardless of the existence or otherwise of verification mechanisms). This analogy was discussed during the workshop that took place at the Chilean mission in 2008, and I believe that the argument of a 're-alerting race' convinced no-one.

In fact, I would argue that in the light of current US-Russian relations, the most important risk of a nuclear exchange comes from the possibility of an inadvertent one brought about by equipment and human error and miscalculation. This makes accident and miscalculation the single most important short term risk to human civilisation.

It was for this reason that in 2008, the Bulletin of the Atomic Scientists in an article entitled 'reducing the risk of human extinction' put lowering operational readiness of nuclear weapon systems right at the top of its highly consequential 'to do' list together with strategies to meet global warming, monitoring of large incoming asteroids, a watching brief on nanotechnology and biotechnology - and the complete elimination of nuclear weapons.

This is especially so in the light of the current state of research on the effect of those warheads. The most recent iteration of research by Toon and Robock on the climatic effects of large scale nuclear warfare indicates that even the use of 0.3% of global nuclear megatonnage by India and Pakistan, when used to target cities, would create a global twilight in which as many as a billion people might die as a result of crop failure.

The use of the main arsenals of the US and Russia would probably bring about the end of what we call civilisation and possibly of our species.

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The risk of absolute catastrophe in any one year is hopefully relatively low (though engineering analysis calculations by Hellman suggest it may be higher than we'd like to think). However when you take even a low probability over an indefinitely large time period, it approaches asymptotically to 100%.

It is time to take the apocalypse off the agenda: It has been there too long.