What NC3 NEXT can learn from NC3 THEN

December 11, 2020

Able Archer 83 ...

How a Nato war game took the world to ...
theguardian.com

War Scare – Foreign Policy
foreignpolicy.com

Able Archer 83 - Wikipedia
en.wikipedia.org

nuclear war with Russia in 1
slate.com

d to Nuclear War
m

1983 War Scare ...
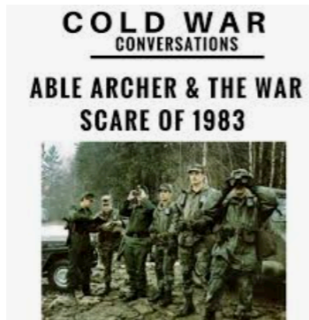fpri.org

Able Archer 83' - Lobik - Untappd
untappd.com

Able Archer" War Scare of 1983 ...
militaryhistorynow.com

Able Archer" War Scare
militaryhistorynow.com

how the Cold War ...

ABLE ARCHER & THE WAR SCARE OF 1983
Able Archer & the War Scare ...
coldwarconversations.com
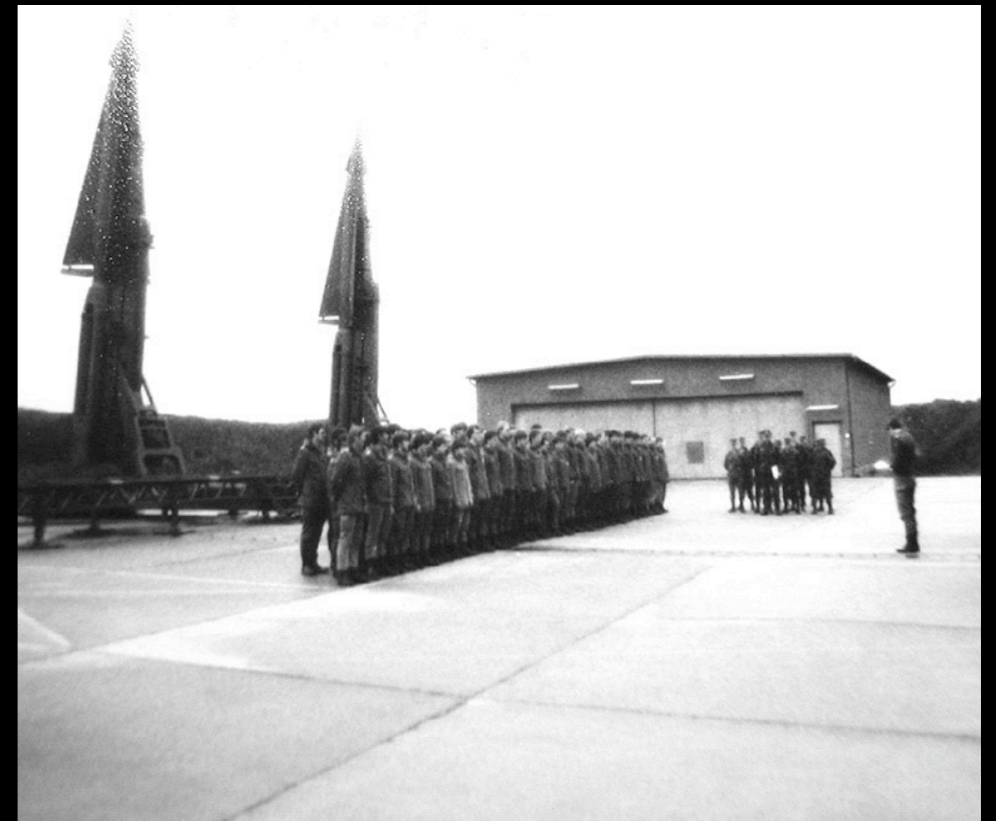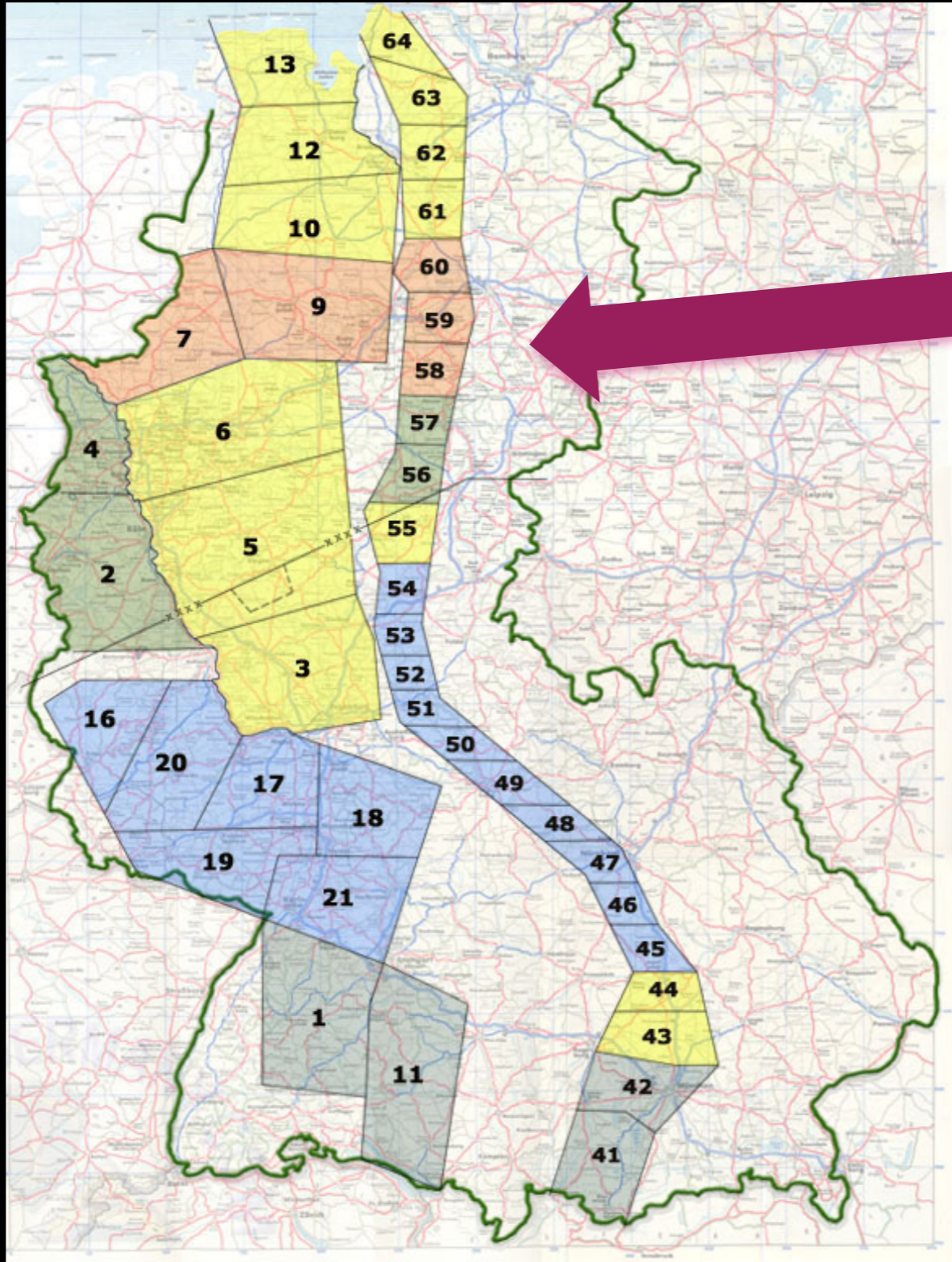
Revisiting Able Archer '83 – NAOC
natoassociation.ca

US M60A3s during Able Archer 83, 1983 ...
reddit.com

Simulating Like a State: Able Archer 83 ...
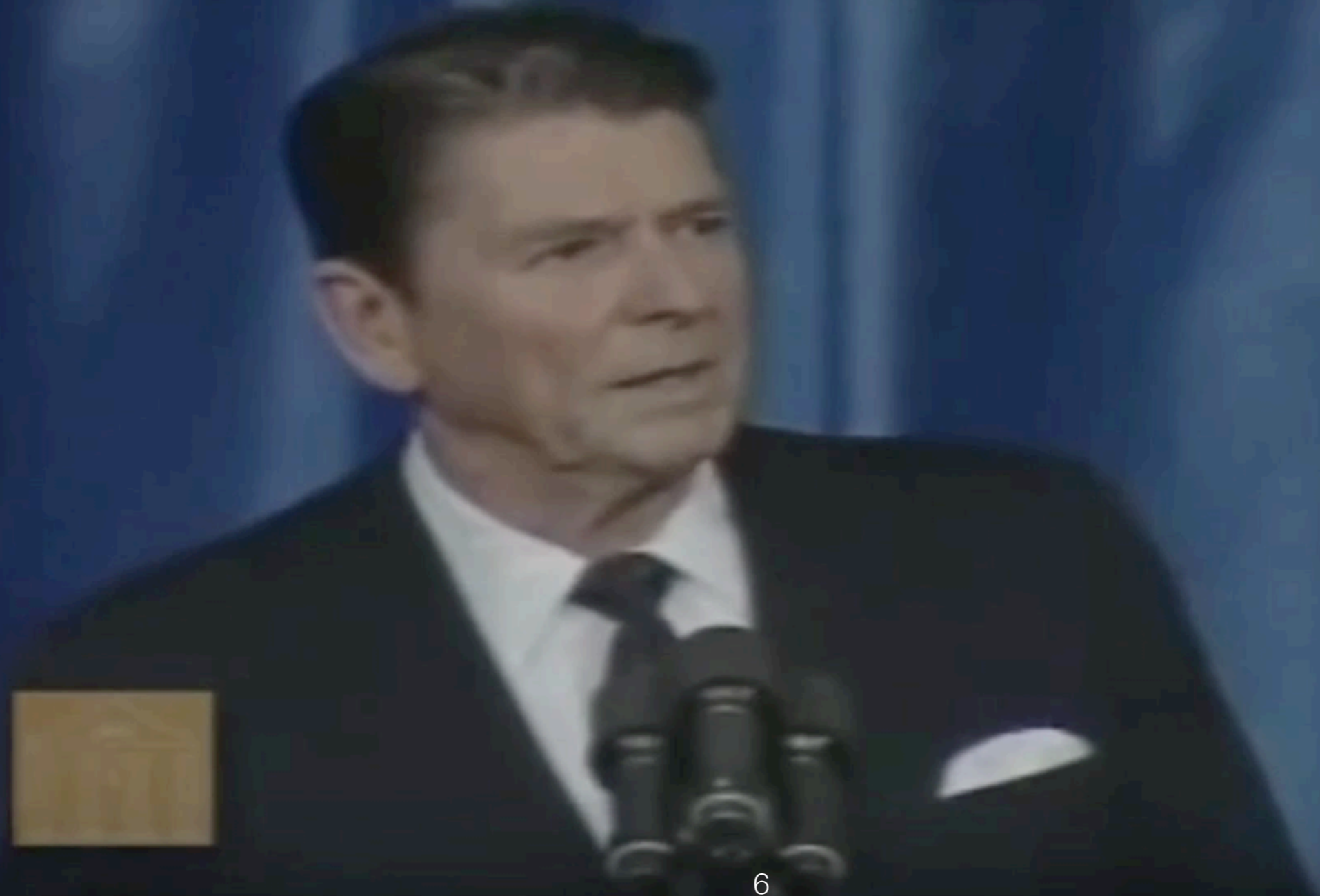wordsinspace.net

This is Capt. Lee Trolan.
He is 25 years old.

Ronald Reagan

President Ronald Reagan - "Evil Empire" Speech

Ronald Reagan

- SDI

- NSDD 75

- "Missile Gap" ?

- Soviets on the Decline

- Nuclear doctrine leaks and evolves (limited war in Europe)

Missile v. Missile

The Soviets…

- Economy on the decline

- SDI seen as a way to get around treaties and electronically disable Soviet nuclear command and control

- Navy PSYOPS, repeatedly testing Soviet perimeter defenses…

- A HUGE U.S. military build-up

- Troops overextended in Afghanistan

The Soviets…

- Project RYAN

- An American President, A Pope, and A Prime Minister who were outspoken about the evils of your world…

- Advances in electronic warfare technology…

- A lack of highly-placed political spies (although the US had no ulterior agenda)

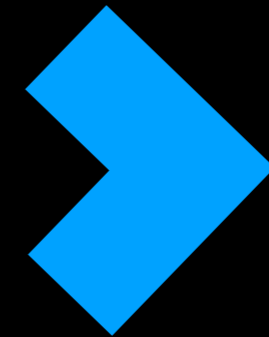- Dying leaders…. Brezhnev, Andropov…Chernenko…

NATO NC3   In a hurry!

- Request from Field Site to Higher Headquarters

- Higher HQ (CENTAG) → AFCENT (Validates) → US Army Europe (Mons, Belgium)

- US Army Europe --> Conference Call w/ SACEUR

- SACEUR --> JSCAN CONF CALL WITH NMCC, JCS NOC

- NMCC Initiatives TOP SECRET SIOP CALL through WHMO W/ POTUS

- SECDEF/ADVISERS present release / withhold options

- NMCC SENDS RELEASE MESSAGE/INSTRUCTIONS TO SACEUR AND FDM to TROOPS (global pre-release)

- SACEUR HQ (and ALTERNATE HQ) SENDS EAM AND Nuclear Execution Message to 65 field sites. (PAL unlock codes opened here and sent first..)

- Custodial Brigades Decode/Break, Enter PAL code, release warheads downrange

NATO NC3

In a hurry!

- Emergency Message Authentication System (EMAS)

- Central European Line of Sight (microwave)

ECCCS-E

- FLAMING ARROW NET (main secure/unsecure voice for nuclear sites)

- CEMENTARY NET (HF Backup)

- Use of USAF HF Net for 2nd alternative

- NATO SECURE VOICE (voice conferencing but relied on German PTS)

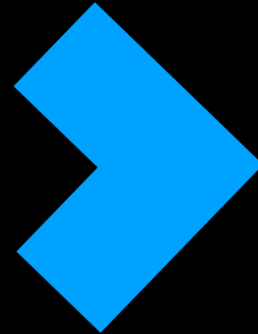- One satellite but NOT reliable enough for nuclear orders

W-31

Continuity of Government

(as of 1983)

USSR

**Whole of Government
Civil Defense**

**"Perimeter"
SOV C2
Dispersal**
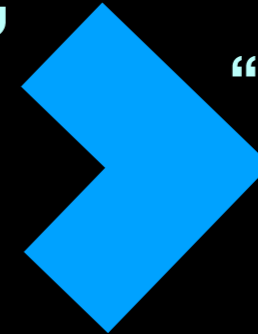
**"Ride out and wait"
C3 bunkers**

USA

- Massive Retaliation > Assured Destruction > Flexible Response > Essential Equivalence >
Trans-attack retargeting.   Carter:

on it. Neither report offered a so___tion to the problem of hardsite
vulnerability. Until the new system is built and tested, it is doubt-
ful that the U.S. could ride out a well-conceived Soviet attack on
our national C^3I, carry through to a third or fourth ranking successor
if need be, and retaliate in a coordinated manner. Even if we were
lucky enough to do that, the staff support for the Presidency to
mobilize, control the forces, and govern the civil sector is lacking.
PD-58 requires the development of precisely that support. (8)

Treetop Teams. NIESS. Expansion of hard sites. COOP/COG

The Origin Story…

Continuty of Government

(as of 1983)

- Reagan's NSDD-55: Enduring Constitutional Government

- (Oliver North: "Why does a 1-star on the ABCNP have the full SIOP and all the codes?")

- Reagan: "I'm not going anywhere."

- Project PEGASUS: Pre-position NCA assets …. Anywhere.

- SENEX aircraft would transport surviving successors

- Defense Mobilization Planning Support Activity (cover for National Programs Office)

- Anyone in the line of succession could be President at any time

- Site surveys of hundreds of suitable "White House" – in emergencies, or with warning, one would be chosen at random by the NMCC, and pre-positioned communications assets (CONUS Communication Support Units) would move there and set up everything a POTUS needed to communicate with forces, with other notions, with Congress and with the country. Senate-confirmed "advisers" would be transported to the "POTUS."

- Legal advisers with PEADs / pre-written legislation, etc.

- Classified satellite contemplated for redundancy but never launched

The Origin Story…

Continuty of Government
(as of 1983)

- Exercises to reconstitute the NCA from ships, submarines, even from two foreign nations

- Corruption, fraud, waste, abuse

- Never fully tested

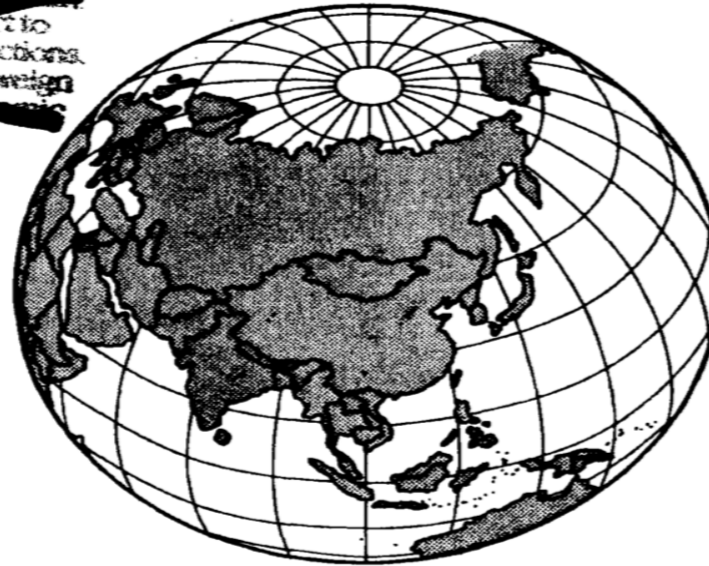- Decommissioned in 1992… but FEMA inherited the assets

PROUD PROPHET - 83

13-24 JUNE 1983

GLOBEX SERIES

MILITARY AND STRATEGIC ISSUES

WAR GAMING AND SIMULATION CENTER

Intelligence In 1983

- Soviet military's views (SRF) v. GRU v. KGB v. Foreign Ministry V. Defense Ministry V. Politburo – and no REAL forum to hash out these differences in real time, responding to real events. The US seemed to assume that the "Soviets" had one perspective on nuclear signaling

- Lack of good political sources, so policy makers fell back on mirror image fallacy

- Political leaders are responsive to their publics… Even in the Soviet Union….

- SOVIET/WP HUMINT

  - PFC. Jeffrey Carney (betrayed NSA / C-EW)

  - CWO James Hall (nuclear procedures, codes, cookies)

  - Clyde Conrad spy ring: (NATO GDP, nuclear doctrine)

  - Rainer Rupp (NATO intelligence, Canopy Wing)

  - (?) KG-13 and other coding machines/ciphers

CARNEY
JEFFREY   M
USDB   SEP 92
AF 75617

MINISTERIUM FÜR STAATSSICHERHEIT

1. Strel

Nr. 193 / 85

INFORMATION

über

die Führungsorganisation der in Westeuropa stationierten Kernwaffenkräfte der USA

Die US-Streitkräfte unternehmen weiterhin Anstrengungen, um die Führungsorganisation der in Westeuropa stationierten Kernwaffenkräfte fortlaufend zu vervollkommnen. Dazu gehört der Ausbau des vom USA-Verteidigungsministerium betriebenen Sonderfernmeldenetzes der Warnung und Benachrichtigung FLAMING ARROW (Leuchtender Pfeil).

Der Betrieb dieses Netzes erfolgt auf Kanälen des strategischen Satellitenfernmeldesystems der US-Luftstreitkräfte (AFSATCOM), die von den US-Seestreitkräften im über dem Nordatlantik positionierten Relaissatelliten TDM-2 des Systems FLEETSATCOM bereitgestellt wurden. Eine zeitversetzte Kanalstaffelung gestattet den Betrieb für den Vielfachzugriff durch die Nutzer des Netzes.

Gegenwärtig treten im Netz FLAMING ARROW regelmäßig die Fernmeldezentralen folgender Führungsorgane, Truppenteile und Einheiten auf:

- Oberbefehlshaber der US-Streitkräfte in Europa (USCINCEUR);
- Stab des Oberkommandos der US-Landstreitkräfte in Europa (USAREUR);
- Stab der 56. Feldartilleriebrigade mit nachgeordneten Führungsorganen einschließlich der Feuereinheiten;

134 1073 10.0

"Staff of the 59th Ordnance Brigade with the subordinate forces the custodian organization for storage of nuclear resources in the territory of the Federal Republic of Germany."

BStU
006270

MINISTERIUM FÜR STAATSSICHERHEIT

Streng geheim!
Um Rückgabe wird gebeten!

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134 1073 10.0

FLAMING ARROW received the leadership…. alerting commands before to trigger increased levels of combat readiness {|for delivery] of the core nuclear weapons…"

"The operation in the network is both encrypted and unencrypted. In a three-digit number code encrypted mode is used. The command transmission by the commander in chief of US forces in Europe, directly or the brigade headquarters takes place via encrypted Kerrgruppen."

TO THE BRINK

- Yuri Andropov was sick. His mind was full of ruminations about his death and his legacy.

- September 1: KAL 007 down. Soviets knew the Americans knew they had made a mistake, but…why would Americans lie?

- September 10: REFORGER exercise – biggest ever -- begins

- September 26: Stanislav Petrov "saves the world" - Soviets knew their warning systems sucked

- US Embassy Bombing in Beirut

- RYAN is pulsed up (Gordievsky)

- SOVs increase worldwide readiness in mid-October

Changing Signals

THE NATO SCHOOL (SHAPE)
APO 09172
BFPO 105

ACE OFFICERS NUCLEAR WEAPONS RELEASE PROCEDURES COURSE I-34-39

17 - 21 OCT 83

No.		NAME	COUNTRY/SERVICE	COMMAND	BILLETS
1	COL	MILLER, T.H.	US-A	LSEAST	Boeld
2	WGCDR	BELAMY-KNIGHTS, P.G.	UK-AF	AFCENT	633
3	LTC	BITTENBENDER, E.	US-A	AFNORTH	ABC-APT.
4	CDR	BLYTHE, D.A.	UK-N	SHAPE	ABC-Hotel
5	WGCDR	CLEGG, M.P.	UK-AF	CHAN	Kuschmierz
6	LTC	HELMS, G.D.	GE-A	BALTAP	I.Bierling
7	CDR	JONAS, M.	US-N	NAVSOUTH	ABC-APT.
8	LTC	LOWENTHAL, P.	US-AF	AIRSOUTH	633
9	LTC	METZDORF, K.	GE-A	MOD-GE	BOQ
10	CDR	MOSSE, P.	UK-N	MOD-UK	BOQ ABC
11	LTC	MULDOON, P.W.	US-AF	AIRSOUTH	633
12	LTC	SACHON, U.	GE-AF	AFCENT	BOQ
13	WGCDR	SEYMOUR, C.C.	UK-AF	AFNORTH	633
14	LTC	STRUCK, S.H.	US-AF	AFSOUTH	633
15	CDR	WICKS, G.W.	US-N	IBERLANT	K.Bierling
16	MAJ	ANDONIS, J.	GR-AF	SHAPE	Magdalena
17	MAJ	ANKE, G.	NO-A	MOD-NO	Schilcherhof
18	MAJ	BURGESS, J.F.	UK-A	MOD-UK	Maderspacher
19	SQNLDR	DALLISON, P.M.	UK-AF	CHAN	Kuschmierz
20	MAJ	GILLENWATER, P.J.	US-A	AFCENT	Wenger
21	MAJ	HOLSKEY, S.	US-AF	AAFCE	633
22	MAJ	JENSEN, H.	GE-AF	MOD-GE	BOQ
23	MAJ	LEWIS, G.A.	US-AF	USAFE	ABC-Hotel
24	MAJ	MASERDONI, L.	IT-AF	SHAPE	Magdalena
25	MAJ	PICCO, D.J.	US-A	EUCOM	BOQ
26	MAJ	POTTSCHMIDT, J.	GE-AF	SHAPE	Boeld
27	MAJ	RADEK, J.	GE-A	MOD-GE	BOQ
28	MAJ	REIF, G.P.	US-AF	SHAPE	Zur Rose
29	MAJ	SCHLESER, L.C.	US-AF	USAFE	Zur Rose
30	MAJ	SIRMANS, R.	US-MC	AFNORTH	633
31	MAJ	STOKOE, J.H.	US-A	EUCOM	BOQ
32	CPT	ANTON	US-A	EUCOM	633
33	CPT	APONTE, S.L.	US-A	EUCOM	Schilcherhof
34	CPT	CLAUSEN, M.	US-A	EUCOM	BOQ
35	CPT	DODSON, D.	US-A	AFCENT	Zur Rose
36	CPT	GUITTAR, S.L.	US-A	EUCOM	Schilcherhof
37	CPT	V. HEERDE,	NL-AF	AAFCE	I.Bierling
38	CPT	PANELLA, J.B.	US-AF	USAFE	Zur Rose
39	CPT	REEVERS, T.C.	US-A	EUCOM	BOQ
40	CPT	TAYLOR, R.H.	US-A	AFCENT	633
41	CPT	WILLIAMS, W.G.	US-A	EUCOM	Boeld
42	CPT	GAMBRELL, A.D.	US-A	EUCOM	Schilcherhof
43	CPT	TROLAN, W.L.	US-A	EUCOM	Wenger
44	CPT	ALLARD, J.W.	US-A	EUCOM	Wenger
45	1LT	BEERY, M.D.	US-A	EUCOM	Wenger/Lang
46	1LT	BOETJER, M.C.	US-A	EUCOM	D.Kuschmierz
47	1LT	DONELLY, R.S.	US-A	EUCOM	BOQ
48	1LT	KOSTIAL, H.	GE-A	MOD-GE	K.Bierling
49	1LT	PATT, K.	GE-AF	MOD-GE	K.Bierling
50	1LT	RAY, T.P.	US-A	EUCOM	K.Bierling

Changing Signals

MONDAY, 17 OCT 1983

TIME	SUBJECT	INSTRUCTOR
0745	REPORT TO ACADEMIC BUILDING	
0800-0815	OPENING REMARKS	COL FEDERICI
0815-0820	WELCOME BY SACEUR (FILM)	
0820-0845	ADMINISTRATION	LT GREIFELT/ LCDR BALLARD
0845-0855	COURSE INTRODUCTION	WGCDR O'DWYER RUSSELL
0855-0930	NATO ORGANIZATION AND FUNCTION	LCDR BALLARD/ LTC MOHR
0930-0950	COFFEE BREAK	
0950-1045	SACEUR'S NOP	WGCDR O'DWYER RUSSELL
1050-1145	NWRP MESSAGE FLOW	LTC BARKER
1145-1200	CLASS PHOTO	VIS AIDS
1200-1330	LUNCH	
1300-1345	LOCAL AREA BRIEFING (OPTIONAL)	CPT HAYE
1345-1415	COFFEE BREAK/NWRP PACKET CHECKOUT	
1415-1500	INTRODUCTION TO NWRP MANUAL	LCDR BALLARD
1505-1550	SELECTIVE EMPLOYMENT PLANS	LCDR BALLARD
1555-1645	CWRP	COL DUREL
1800-1900	COURSE COCKTAIL PARTY AT NATO COMMUNITY CLUB. YOU ARE REQUEST	

ABLE ARCHER

- Technically, just a nuclear release procedural exercise involving units in Europe

- Soviet POV: Progress from using TACTICAL nuclear weapons to STRATEGIC nuclear war (intel)

- Soviet POV: Why use B-52s? (intel)

- Before AA: Troop reinforcements for custodial brigades. (Imagine this from the Soviet POV, too)

- November 4: THE DAY IT BEGINS: Soviets launch a missile on a POLAR path (first since KAL)

- Spetsnaz/HVa: NATO alternate mobile headquarters are actually mobile!

PFIAB Report From 1990

The "mixed" Soviet reaction may, in fact, directly reflect the degree of uncertainty within the Soviet military and the Kremlin over US intentions. Although the Soviets usually have been able to make correct evaluations of US alerts, their increased number of intelligence reconnaissance flights and special telegrams to intelligence Residencies regarding possible US force mobilization, for example, suggests to us serious doubts about the true intent of Able Archer. To us, Soviet actions preceding and during the exercise appear to have been the logical steps to be taken in a period when suspicions were running high. Moreover, many of these steps were ordered to be made secretly to avoid detection by US intelligence. This suggests that Soviet forces were either preparing to launch a surprise preemptive attack (which never occurred) or making preparations that would allow them a minimum capability to retaliate, but at the same time not provoke the attack they apparently feared. This situation could have been extremely dangerous if during the exercise -- perhaps through a series of ill-timed coincidences or because of faulty intelligence -- the Soviets had misperceived US actions as preparations for a real attack.
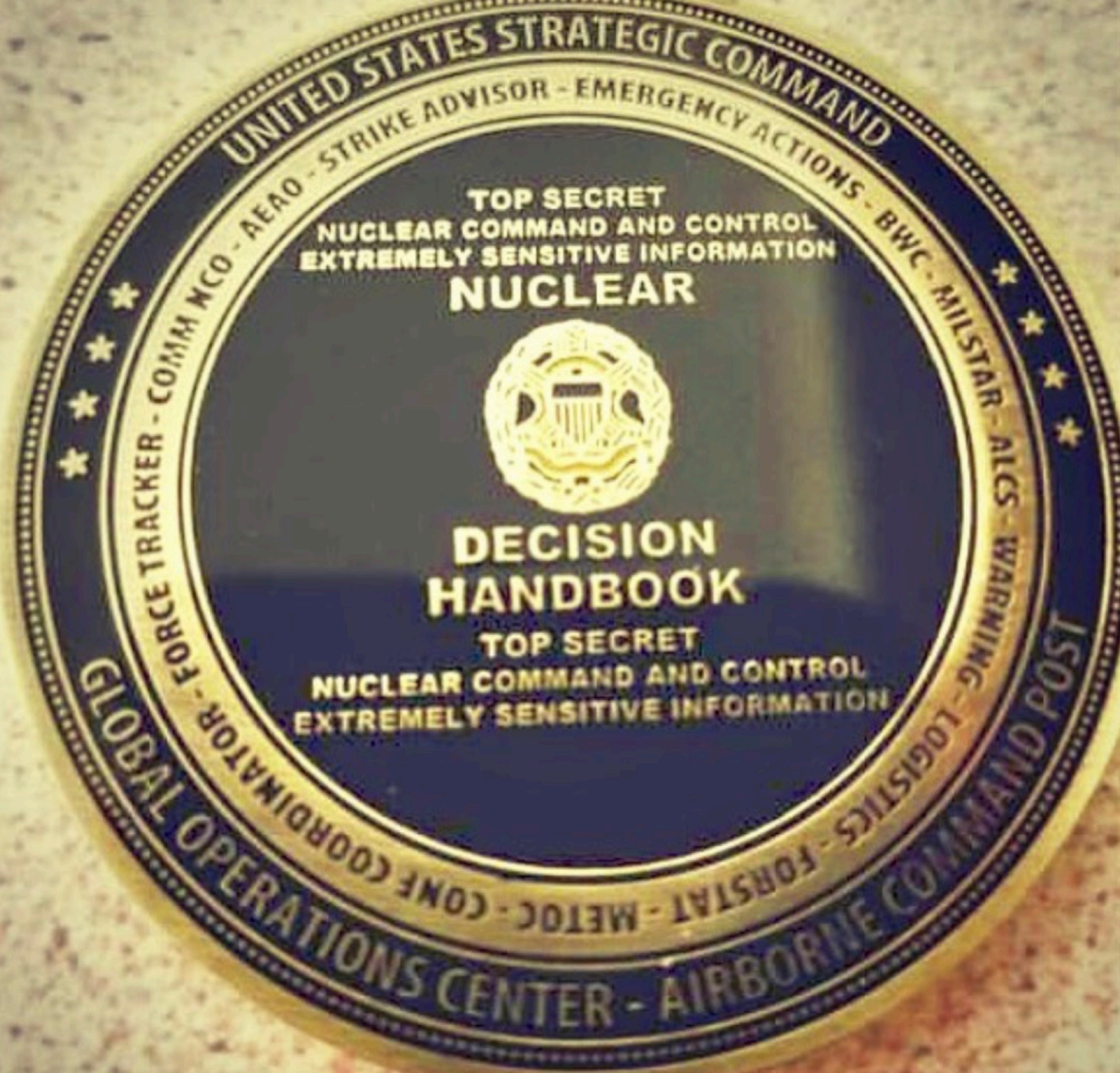
Lessons From AA '83

- Technical warning intelligence is critical, but without political intent and with ambiguous signals…it's noise

- Assumption of a completely unbreakable, secure two-way interactive and dynamic nuclear communication system is untenable given how many systems interact … and physics (HMX-1!)

- Dual-use systems are inherently confusing … Just as now, the NATO nuclear system supported an increasingly large number of conventional systems. The adversary did not find this comforting, but it did NOT serve as a deterrent!

Lessons From AA '83

- Global situational awareness!

- Using exercises as signaling… (why do we still do this? Because we can? Really?)

- Essential to build in to the system as much "breathing room" around the connection points most likely to be influenced by

  - Time pressures

  - Cognitive errors

  - Sabotaged NC3

  - Dual-use (cyber, common authentication)

We ARE The Best, But

Reliability Culture Perspective on NC3

- US NC3 best in world
- USNC3 had leadership committed to nuclear safety, redundancy in controls, early warning sensors, decision making systems; strong reliability culture; continuous alert, high level training, PRP, ethos
- Not so tightly coupled so still time to react, recover to near-misses
- Nett result: safe routinely, even safer in crisis

Normal Accident Perspective on NC3

- High levels interactive complexity , eg weapons, NC3 in close proximity
- Dependence on sensors with long, interruptible communications
- Opacity and secrecy high, oversight low
- High level of coupling, rapid warning, decision, launch times with global coordination
- Poor readiness for unanticipated crises and events
- Bugs in systems, procedures, software, concepts
- Accident waiting to happen

(Peter Hayes / Nautilus Institute)

Moving Beyond 2020

- Focusing on the interaction between humans, technology and dynamic world events

- Essential to model the effects of social media as a SENSOR that could provide as much (accurate or inaccurate) information as determined deployed warning technology

- Public affairs is not part of NC3. No counter-disinformation program at all. (President Trump got sick and the TACAMOs…)

- COOP concerns post COVID

- Can't rely on the assumption that the most likely scenarios have been thought through by policy makers

- NC3 secrecy and opacity and complexity → more visibility for NSC staff

tone. So did Ernest Moniz, the energy secretary. Antony Blinken, the deputy secretary of state, sitting in for John Kerry, was undecided, saying he saw the logic on both sides.

The question then turned back to operational matters, specifically: where to aim the nuclear response? Someone suggested Kaliningrad, but it was noted that Kaliningrad was part of Russia; if the United States hit it with nuclear weapons, Russia might fire back at the United States. As for aiming a few nuclear weapons at the Baltics, to hit the Russian invaders, well, the bombs would also kill a lot of Baltic—which is to say, allied—civilians. Finally, the generals settled on firing a few nuclear weapons at the former Soviet republic of Belarus, even though, in the game, it had played no role in Russia's incursion into the Baltics or in the nuclear strike.

The game didn't last beyond the first two moves. The majority of officials agreed with Carter that the crucial point was to demonstrate

My POV

- The transition from hard-point to IP introduces many sources of uncertainty and vulnerabilities, especially for MEECN, and increases the likelihood of a COG compromise event (cyber sabotage of, say, the presidential CMS for viewing tactical warning info.)

- Dual-use/Dual-purpose: (Incorporating existing defensive cyber, AI/machine learning for counter-intelligence, ABMS…)

- COMMUNICATION ABOUT NC3 WITH NON-TECHNICAL POLICY FOLKS!

- Organization upon organizations: STRATCOM NEC, JSEIO (to STRATCOM)

- How should we think about NC3 going forward? (A weapons system, a systems of systems)… but… if everything we do has some physical or phenomenological correspondent, it might be better if we start to think about NC3 as if it we were a self-contained but interdependent node of international NC3 systems.

- But of course… we can't rely on anyone else's NC3 architecture….

THE BRINK
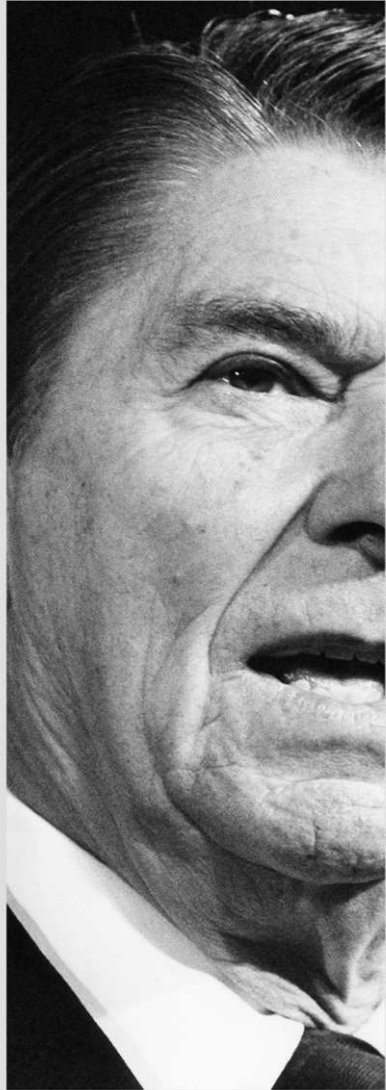
PRESIDENT REAGAN AND THE NUCLEAR WAR SCARE OF 1983

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