



WARGAMING ESCALATION

Perry Jago
Proprietor
Pear Tree Ltd

Pear Tree Ltd
9 Chesterment Way
Lower Earley
Berks RG6 4HW
UK

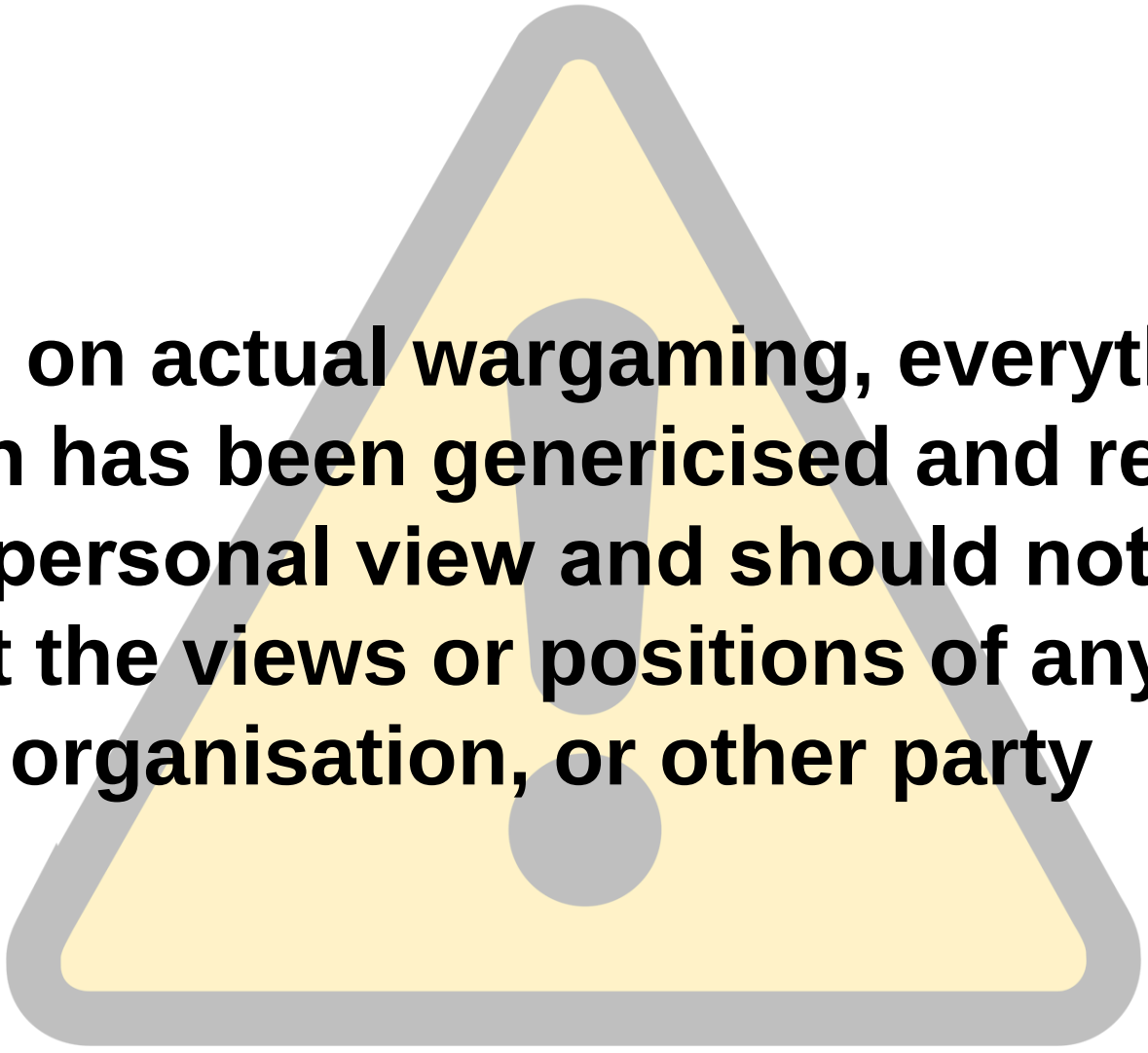
+44 186 552 2486
+44 790 341 5498

perryjago@peartreeltd.co.uk

Who Am I?

- Independent consultant, ex-RAF (1977 – 1999)
 - Currently under contract to US Space Command, UK MOD, and others
- 45+ years experience in Air Defence, 35 years in Missile Defence
 - Operations, command, policy, research, testing, training, evaluation...
- Long experience of wargaming
 - First education game 1979 (School of Maritime Warfare 'Tactical Floor')
 - Player, analyst, designer for analytical games since 1997
- Trained facilitator
 - 20 years experience
 - Lead facilitator for US-led multi-national global wargaming programme since 2007

Disclaimer



While based on actual wargaming, everything in this presentation has been genericised and reflects only the author's personal view and should not be taken to represent the views or positions of any nation, organisation, or other party

The Goal Of Escalation Wargaming

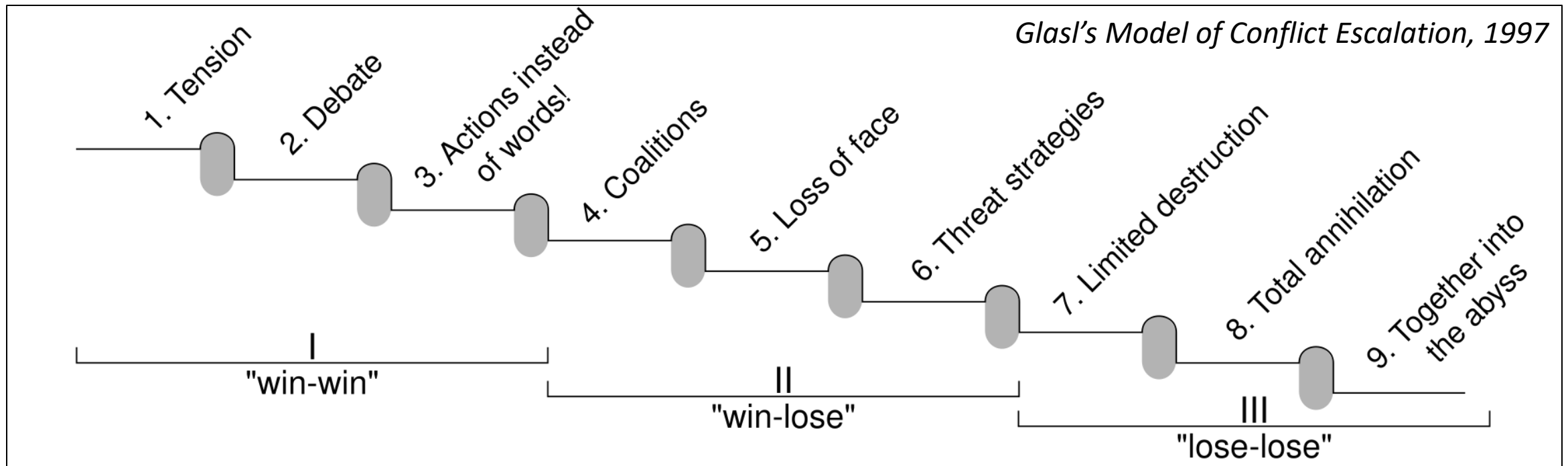


The true objective of war is peace

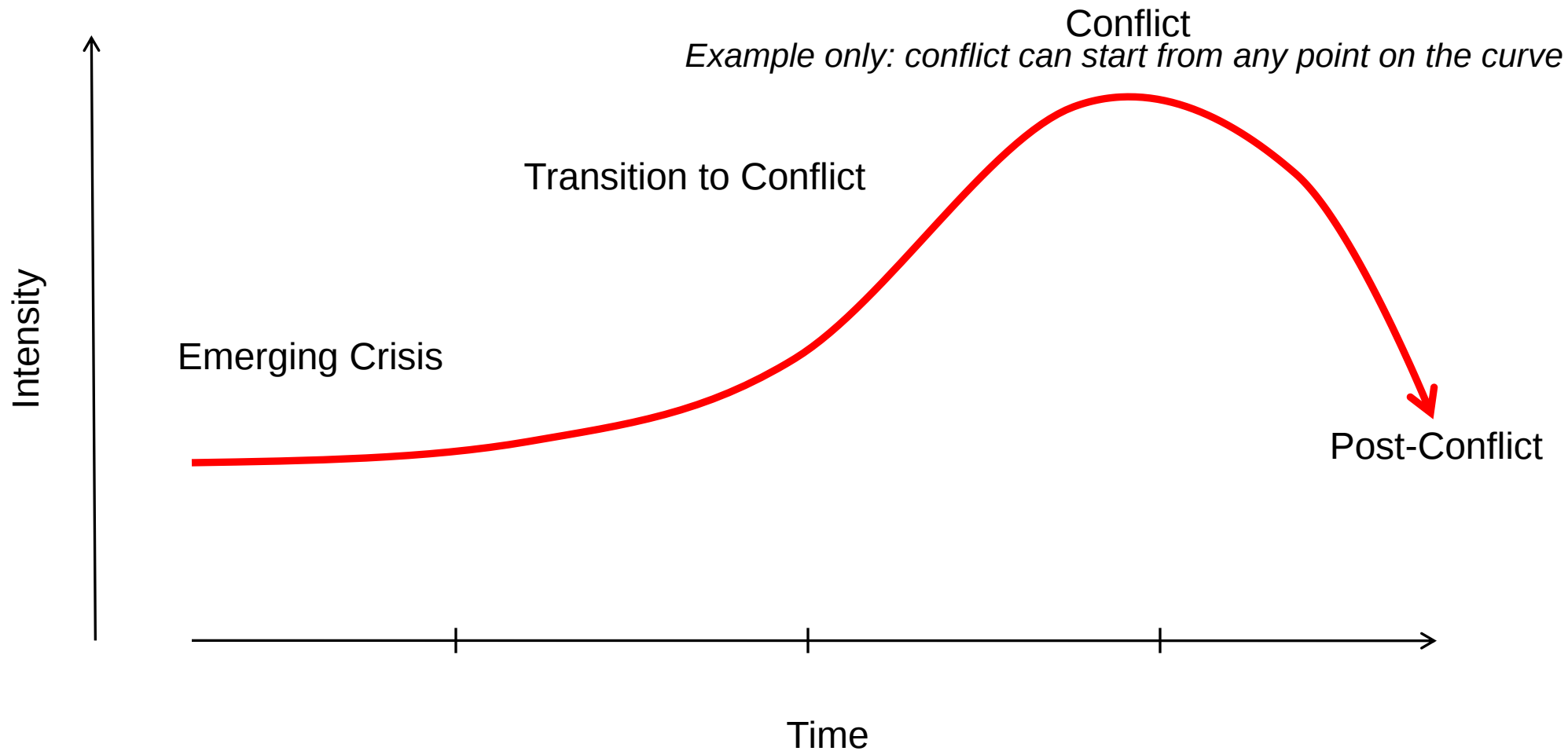
~ Sun Tzu

Context: Escalation Management

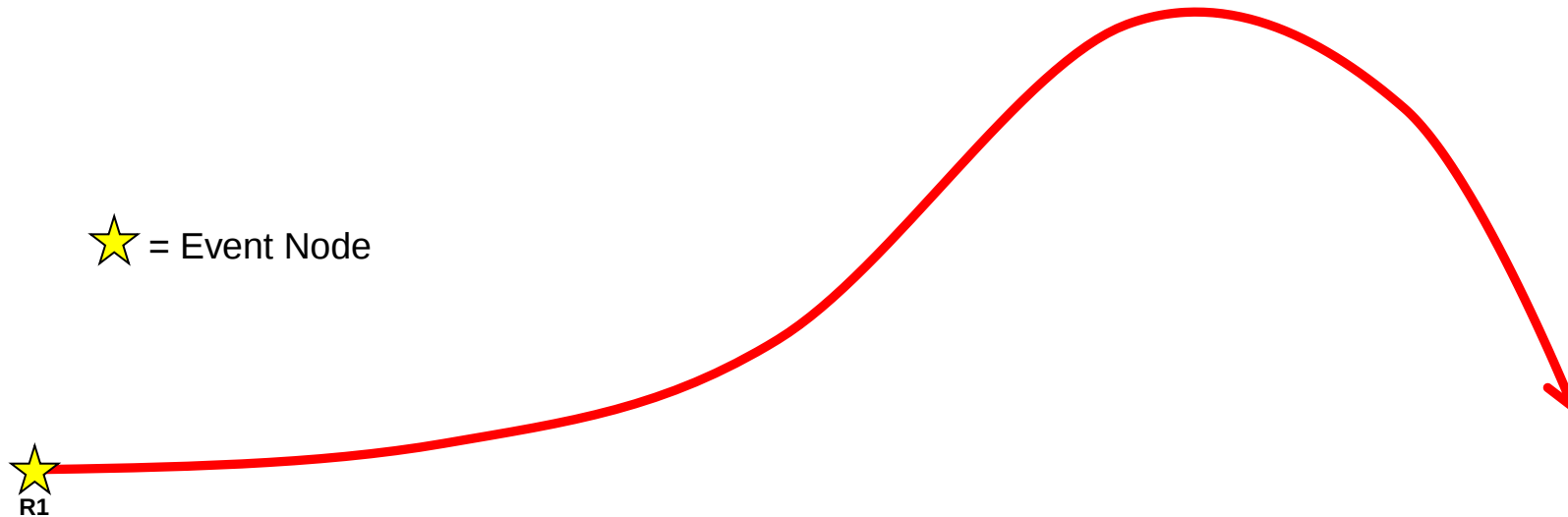
- Conflict escalation is the process by which a conflict grows in severity or scale over time
- In contrast, de-escalation measures are approaches which lead to a decrease in or the end of a conflict



Gaming The Escalation Curve



Gaming The Escalation Curve



- The first **RED** event is generally pre-scripted, and is often used to bed the players in
- However, **BLUE** is expected to decide on and implement an appropriate response

Gaming The Escalation Curve



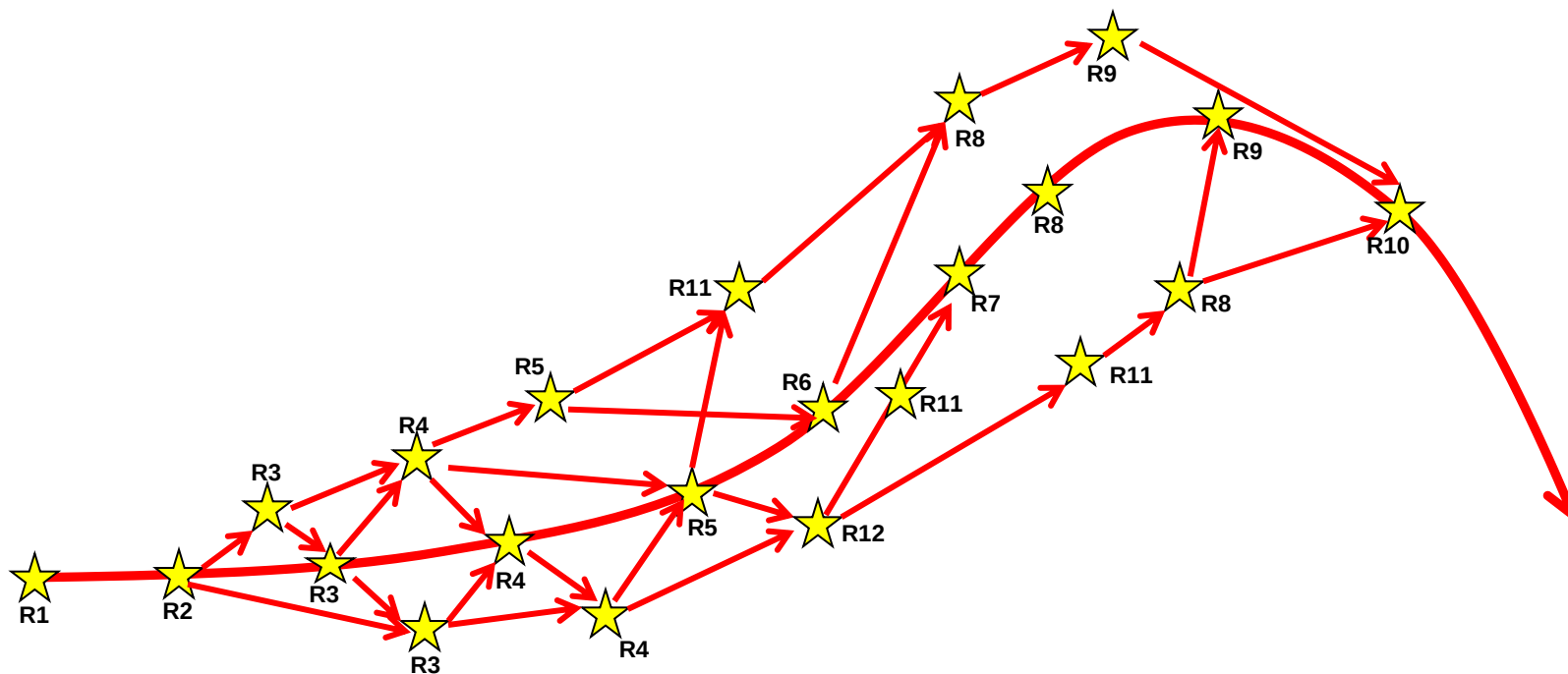
- In response, **RED** will decide whether it sees **BLUE**'s actions as increasingly escalatory (up), de-escalatory (down), or maintaining the status quo (the middle line), and will accelerate, increase, delay or decrease its next move accordingly
- Every **BLUE** move therefore gives **RED** three basic options

Gaming The Escalation Curve



- And so on – every action has a reaction
- In all cases, RED may make alternative moves

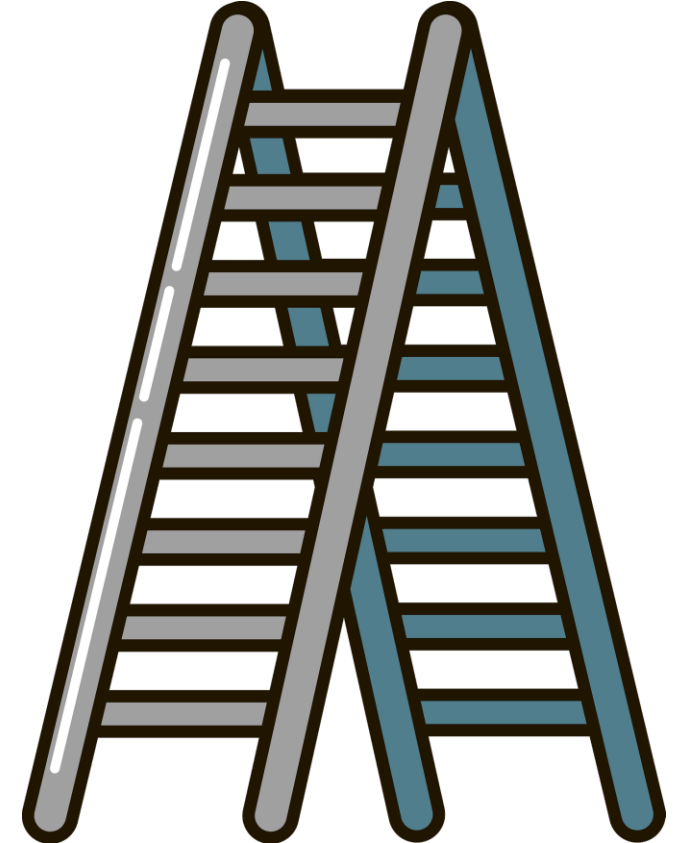
Until



“The Red Banana”

The Escalation Ladder

- The ladder is two-sided
 - Do both sides have the same goals and/or risk tolerance?
 - Are they trying to go up or down?
- Can you go up to go down?
 - Is 'escalate to de-escalate' a valid concept?
 - If so, where might the thresholds for action lie?
 - And what might be the risks?



Factors Affecting Response

- Attributable or non-attributable?
- Temporary or enduring effect or damage?
- Criticality of effect?
- Casualties?
- Context?
 - Rhetoric
 - Readiness and posturing
 - Movement of forces
 - Incursions
 - Apparent direction of curve



Exploration Method: What If?

- In a crisis-to-conflict-initiation game, we stepped out of normal play to present a range of hypothetical slowly escalating **RED** actions to the **BLUE** players in a hybrid Seminar/TTX format
- The aim was to get the **BLUE** players to consider two things as part of their planning for conflict:
 - What they would consider as triggers for response
 - What their thresholds for different types of response might be
- Our **RED** players also stepped out of their normal roles, to act only as subject matter experts on the adversaries
 - These were a global power, a regional hegemon, and a multi-regional non-state actor
- The master question was:

What would your nation's reaction be if this happened to you or an ally?

Situation 1

- **RED** conducts a large and powerful set of electromagnetic spectrum jamming incidents in **BLUE** territory which affect telecommunications, air and missile defense C2 systems, and some military and civilian radars
- There are a series of unidentified hacking attempts made on **BLUE** C2 and intelligence systems, ranging from suspected data theft all the way up to dedicated denial of service attacks
- Several major submarine cables are cut, severing major high-volume data transmission and telecommunications
- No one claims responsibility, but intelligence believes these may have been conducted by **RED** operatives



Situation 2

- Multiple mid-size explosive-armed UAS crash into a number of **BLUE** air and missile defense installations with no warning, rendering several facilities temporarily inoperative and causing a small number of casualties
 - No one claims responsibility, but intelligence believes these strikes may have been conducted by a **RED** state
- A number of small UAS carrying explosive payloads smash into a number of **BLUE** C2 facilities
 - No one claims responsibility, but intelligence believes these strikes may have been conducted by a **RED**-linked non-state actor



Situation 3

- **RED** AI-driven C2 system launches two short-range ballistic missiles into international waters in close proximity to **BLUE** territory
 - No casualties or destruction of property is noted
- **RED** conducts a space launch with no warning or prior notification which creates a debris field that destroys a **BLUE** communications satellite
 - It is unclear whether this was intentional or unintentional
- **RED** remains silent on these incidents, refusing all requests for information



Situation 4

- **RED** military mobilization increases, with a large exercise on a scale never seen and extensive logistics preparations
 - Upon completion of the exercise, a high percentage of forces remain in place in their wartime battle positions well after their normal redeployment and mobilization timelines
 - Intelligence sees increased fueling of missiles and launcher movements within exercise training areas
- **RED** makes a political ultimatum that all foreign troops must leave the areas around **RED** soon, “or face the wrath of **RED**”
- Additionally, **RED** begins massing ground and air forces and logistics along the **RED/BLUE** border



Situation 5

- **RED** troops begin moving toward **BLUE** borders
- All of **RED**'s air and naval forces are elevated to the highest alert postures ever seen
- **RED**'s fleets complete uploading and put to sea
- **RED** missile brigades and supporting logistics convoys begin move to suspected wartime operating areas
- **RED** population begins evacuation from border areas to cities away from **BLUE** territory



Situation 6

- A number of suspected **RED** SF, **RED**-suspected cyber, and **RED**-linked terrorist attacks are launched against **BLUE** C2 nodes, air and missile defence sites, electrical power and other critical civilian infrastructure
 - Causing a varied amount of damage, and a small number of civilian and military fatalities
- **RED** conventional military remain on heightened alert, but no border violations are noted



Situation 7

- **BLUE** intelligence reports movement of **RED** ground forces moving to suspected mobility lanes to cross the borders
 - Artillery moving into firing locations within range of these crossing points
 - Previously unencrypted ground C2 becomes encrypted
- **RED** air forces begin large and intensive air sorties along the border and over disputed areas, while large numbers of ground attack aircraft are seen loading live ordnance at strike airfield bases
- **RED** naval forces move into position to interdict **BLUE** reinforcement and other operations
- **RED** missile forces and supporting logistics disperse to hide sites within operating areas



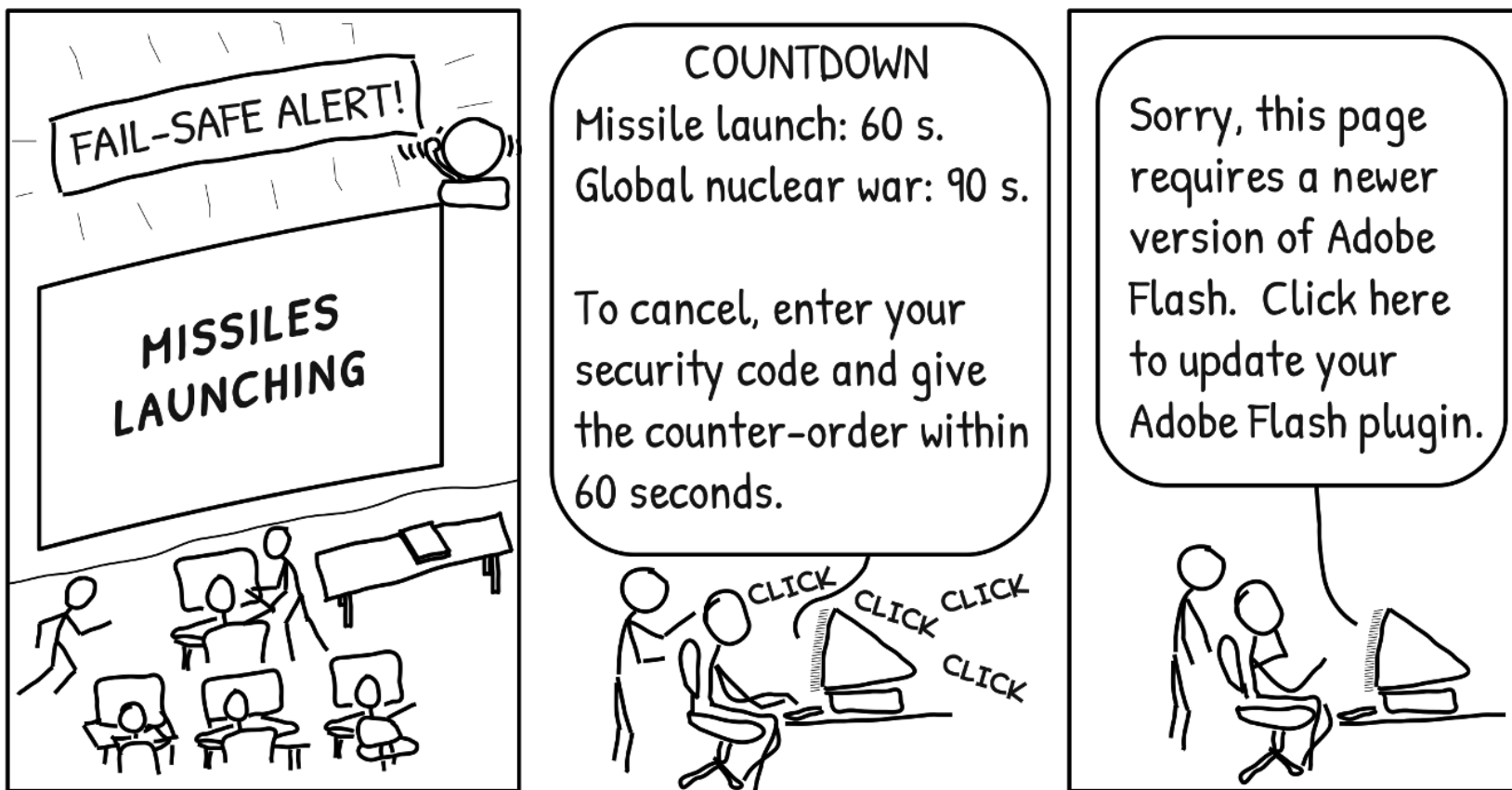
What Did We Find? Yet More Questions...

- Escalation management in conflict is a complex subject
 - Some even consider it to be a chimera
- Should thresholds be made clear?
 - The West has a poor record in enforcing 'red lines'
 - Adversaries have regularly exploited them
- Should we be reactive or proactive?
 - How does this relate to deterrence?
- Whatever happens, escalation is a 2-sided game
 - There will always be some form of responsive interaction
- Bottom line: escalation thresholds vary significantly between different types of adversaries
 - No 'one-size-fits-all' pre-planned responses appear to be possible



Conclusion

- The best way to learn about escalation is in a safe-to-fail environment



"We may never know the right answers, but gaming can sometimes help us learn to ask the right questions"

From 'The Art of Wargaming' by Peter Perla, John Curry, James F. Dunnigan, Admiral Thomas B. Hayward USN (Ret.)



PearTree

Thank you for your attention

Pear Tree Ltd
9 Chesterment Way
Lower Earley
Berks RG6 4HW
UK

+44 186 552 2486
+44 790 341 5498

perryjago@peartreeltd.co.uk