

“Discourse on Winning and Losing”

Lecturer: Col. John R. Boyd (ret)

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Transcribed by: Maj Ian Brown, 25 March 2015 – 11 January 2017, utilizing “Express Scribe Transcription Software,” distributed by NCH Software (applied the following audio enhancements built into the software: “background noise reduction” and “extra volume boost”). Additional transcription assistance from Same Day Transcriptions, Inc. Time stamps, indicated by [15:00], are inserted every five minutes.

Notes:

1) Aside from Colonel Michael Wyly, the transcriber could not identify by name or branch of service any of the audience members (no class roster is included in the archived material). Individual speakers are identified by the name “audience.” Based on audience interaction with Boyd over the course of the three days recorded, the transcriber estimates an audience size of approximately ten members.

2) The transcriber has included brief explanatory footnotes for various people and books Boyd cited throughout the presentation. The most recent versions of the books cited are included, to aid those interested in further reading.

[Begin Tape 1, Side 1]

John Boyd: You have your own copy. Can you all read it? If you can't, pass the other copy around. It's kind of close here. What we can do— Why don't we get smart.

Michael Wyly:¹ Do you want to move it back? [unintelligible]

Boyd: No, that's alright. That's fine— I think that's good right there. [Cross talk] Did you get a pointer there, Mike?

Wyly: He's getting one—

¹ At the time this brief was presented, Colonel Michael Wyly was a staff member of the Marine Corps University at Marine Corps Base Quantico, Virginia. Wyly was a key member of the maneuver warfare movement within the Marine Corps during the 1980s. He wrote many articles on the subject in the *Marine Corps Gazette*, the Corps' professional journal. His passion for the subject came from his experiences during the Vietnam War as an infantry platoon commander. Prior to the creation of the Marine Corps University by General Al Grey, Wyly had lectured about maneuver warfare at the Amphibious Warfare School in Quantico, where he became familiar with Boyd's work through William Lind, and often invited Boyd to lecture. William Lind was a civilian military reformer who also wrote extensively on maneuver warfare and was a friend of Boyd's. Wyly's lecture notes on maneuver warfare were included by Lind in the *Maneuver Warfare Handbook*. See William S. Lind, *Maneuver Warfare Handbook* (Boulder, CO: Westview Press, 1985).

Boyd: Okay, has everybody read the abstract?² What'd you get out of it? The most important paragraph is the second paragraph. Excuse me, the last paragraph. The last paragraph on the second page is the most important paragraph. Because that's what this all what we're going to be talking about today is all about.

Let me tell you something, preliminary before I get into the presentation. You know, some people like to be regarded as being an analyst. They think that's a term of endearment. I treat it as a personal insult if somebody calls me an analyst. A personal insult. If you've read the last paragraph, I've showed there are two things you have to be able to do: analyze and synthesize. Analysis and synthesis. And if you can do that in many different areas, tactics, strategies, goals, unifying theme, you can run businesses, you can do any goddamn thing you want. And so when a person calls you an analyst, you're really only a half-wit. You only got half. Idiot. So there's two things that I don't like being called, one an analyst, and the other is an expert. Because an expert means he knows everything and can't learn anything new. He's rigid. And boy, if you're an analytical expert, you're really in deep trouble.

So some of you people may feel a little bit uncomfortable with my presentation, because I don't start out with an executive summary. And then after, we say, "here it is," now we're going to pack in only that data that supports it and summarily reject everything else. That's how we get ourselves into problems. **[title slide]** We're going to go through this whole presentation—"Patterns of Conflict"—going back in history that I've laid out here in the outline we're going to go through. And we're going to pull things apart, put them back together, pull things apart, put them back together all the way through. Now why in hell are we going to do that for? Should drive you batty. The very simple reason, and what you're trying to find out if we're going to talk about conflict, you want to reach back, you want to find out those things we call the "invariants," the constancies, or what the physicists like to call the symmetries. Where you can look at things from different points of view, and you keep seeing the same thing popping out.

Example: let's assume you people here in this room—and it's an idiotic example but it makes my point—were taught all your life, or you only had the opportunity to see pyramids from the side. Only from the side. You'd go through life thinking pyramids are triangles. Now let's say we got another group, different from our group here, and they only got to see pyramids from the top. They'd think there were rectangles with intersecting diagonals. A square. So now let's say this group then interacts with the other group, and they start talking about pyramids, and say "these guys are goddamn idiots." And it's you he's talking about and he thinks you're an idiot. But you're both talking about the same thing from what? A different point of view. You're both correct, partially. But from a different point of view.

² Boyd is referring to a two-page abstract he wrote for his *Discourse on Winning and Losing*. The *Discourse* was a collection the briefing slides from several of Boyd's presentations, which were assembled and bound in a "Green Book" due to Col. Wyly's efforts. The *Discourse* included the essay "Destruction and Creation," and the briefs "Patterns of Conflict," "Organic Design for Command and Control," "The Strategic Game of ? and ?" and "Revelation."

And so what you want to do is, you want to examine these things from these different angles or points of view, and find those things that tend to keep holding up. You've got a goddamn gem that you find. They're hard to find. You've got a gem, an invariant, a constancy, what the physicists call symmetry. Symmetry is the ability to find those same things that hold up, that don't change when you look at it from different points of view. Any physicists in here, anybody study physics? Ever heard that term symmetry? Well I ask you, what's pure or perfect symmetry? Give me an object, an example of perfect symmetry, where you examine from different points of view, a physical object. Doesn't change no matter how matter you examine it.

Audience: Sir, a sphere?

Boyd: That's right a sphere. Not a circle, a circle you don't [unintelligible]. [05:00] A sphere, no matter how you examine it from different angles, perfect symmetry. Unfortunately that's a physical object; now we're going to look at moral, mental, and physical. When you go off the physical, you start looking at mental, it gets a little bit more difficult. So we're going to go through, and basically we're trying to find those invariants.

We're going to go from Sun Tzu to the present, what kind of things still hold together? And that's why you don't just take Sun Tzu and say "kkkkkkk," template him today, you're going to do that, or you take Clausewitz and you're going to template him today, or Jomini or who else [unintelligible] you're going to make a horrible mistake if you do that. But there are certain things they said that still hold true, if we uncover them. The answer is there. And you're going to see how that's done. So we're not going to start with the answer. We're going to start with a confusing bunch of goddamn data and we're going to try to pull it together.

We're going to do both. Breakdown, which is the analysis, pulling it back together with synthesis, pull that apart, breakdown, bring it back together and pull it apart, always feeding in more and more stuff and rejecting more and more stuff as we go along. To find those things that hold true, whether in the past, today, and also in the future. For those people that study Clausewitz, think that we're just going to use Clausewitz as the lens filter to look at the problem, you're going to make a horrible mistake. It's a disaster. Because all you've told me is your thinking hasn't proceeded beyond 1832, and a lot of things have happened since 1832. [unintelligible]

So I can't overemphasize it. Now I want to talk about one other thing before I hop into the presentation. One thing I want to point out, and I'm going to make it again and again. Terrain does not fight wars. Machines don't fight wars. People do it and they use their minds. So you better understand the people, because if you don't understand them, you ain't going to make it, period. Now it doesn't mean you don't pay attention to terrain, you don't pay attention to machines but: person, the human being, and the people are what counts. Top and foremost priority. The terrain is just the means through which you operate. The machines are just tools that you use. All they are. Of course, you can use them badly, or use them well. But the point is,

that's all it is. I want to drive that home. I'll show you, when you make that mistake, when you begin to think that terrain is the most important thing, you're going to make some very serious mistakes.

Okay, how many people here have read the book, *The 25-Year War*?³ Anybody read it? By Bruce Palmer. Anybody read *The Army and Vietnam*, by Andrew Krepinevich?⁴ I understand he's been here, as a matter of fact. Anybody read it? Let me tell you what they—I want to bring it out. The reason why I take those two is they're sort of—in a sense diametrically opposed, but I'll show in a way they aren't. Bruce Palmer—and I'm not saying in a pejorative sense—has written his book from what I call more of a conventional mindset. And it's not pejorative, in other words I'm not talking down. In other words, he's looking from a more conventional viewpoint.

Whereas Krepinevich is the radical, the young radical, looking at it through counterinsurgency, guerrilla warfare, and that thing. So they come in from two, remember I said, two different points of view. They're looking at the pyramid from different sides, is what I'm trying to tell you. Looking at that pyramid from different sides. But interestingly enough, if you read both books very carefully, guess what? They both come up with the same conclusion, and I'll lay them out to you.

Item one: Palmer says, “we didn't understand our adversary.” He quotes Sun Tzu. Same thing Krepinevich said. Item two: he didn't say directly, but infers it: we didn't even understand ourselves! Remember Sun Tzu, “know your enemy, know yourself, you win a hundred battles.” Krepinevich says the same thing. Totally different viewpoint. Item three, in terms of tactics: Palmer didn't address the tactics, he said, “I don't want to address that, that's not the scope of my book.” He went off on the strategic level. Krepinevich does, and he says, as a corporate body we didn't understand the tactics that should have been used over in Vietnam, southeast Asia.

However, he did say there were people that did understand it, but they were swept aside. Get them the hell out of here, you know, they're not going to let us do the war the way we want to do it. In terms of strategy, both of them said we didn't understand the strategy. Palmer and Krepinevich. And both of them said we didn't understand the nature of that war. Christ, if you don't understand your enemy, you don't understand yourself, you don't understand strategy, you don't understand the nature of the war, of course, it raises the question: what the hell did we understand? Anybody know? Logistics.

[10:00] Do you know how I know that? Because everybody was living off our logistics system, Viet Cong, everybody was living off of it, including ourselves. That means you've got a goddamn good logistics system. Now I'm coming down hard, and the reason I'm coming down

³ Gen. Bruce Palmer, Jr., *The 25-Year War: America's Military Role in Vietnam*, 4th ed. (Lexington, KY: University Press of Kentucky, 2002).

⁴ Andrew F. Krepinevich, Jr., *The Army and Vietnam* (Baltimore, MD: Johns Hopkins University Press, 1988).

hard, people don't like to talk about Vietnam. Well, you don't want to talk about it, you're not going to learn any new lessons. You're going to continue to think the same old way, and your adversary will take you apart the same old way.

If you recall, that was what Wellington said at Waterloo. Remember what he said? Napoleon came on the same old way, and we beat him the same old way. Because he figured out the tactics that had to be used against Napoleon down in Spain. And so guess what: Napoleon saw those tactics didn't work, he still used them at Waterloo, and he got hammered one more time.

Audience: The book, *25-Year War*, uh—

Boyd: by Palmer—

Audience: —talked about the Marine Corps for a short period there, where [unintelligible] the NCO strength and everything was good in the Marine Corps, however the officers, the senior officers were not professionals with the reality of what was going on there. He says—

Boyd: —as a matter of fact, since you wanted to pin it down, what he really comes down very hard on *is* the senior leadership in all the services. In fact, that's what he pinned down, except I wanted to talk about, all I was trying to show you was the points of agreement between he and Krepinevich, even though they came in from two different viewpoints. That's exactly right. Remember he took after senior leadership in the Army and elsewhere too.

Audience: Yes, sir.

Boyd: And what was the Marine Corps? He says it was a disaster. That's right. And, you know, look at Krepinevich, he said there are some guys that understood what had to be done. Not only in the Marine Corps; in fact, he gave the Marine Corps high grades, particularly with their CAP teams and that. Also gave the Green Berets, the Special Forces, high grades initially, except they were siphoned off and had to do other things that were wasting their time. And there were some other instances too. But I don't want to get into that.

I was trying to show you the point that even though they were coming from different viewpoints, we find that their conclusions, [unintelligible] the same way, and that's the point I want to drive home, that they came out the same way. Now some of you might have one more persuasive than the other and I don't want to dictate one way or the other. But I want to show you it's very interesting, when you come in from different viewpoints and the conclusions come out the same, you're on to something. That's what I want to bring in [unintelligible].

Another example is the Packard Commission. Remember when they had that big commission, how they were going to re-manage the Defense Department? It didn't get any better. It's not going to get any better that way. And I know Mr. Packard, he's a nice person, I know him very well as a matter of fact. Because of my design work in the building. And I've talked to him since.

He agreed, I said, “here’s what has to be done,” he said, “well, we can’t get that done.” Well, it’s not going to get any better. He agreed with me.

But one of the things they talked about: command and control. Remember the thing, they’re always knocking that in the JCS,⁵ we got to smooth out the lines of command and control, streamline command and control. What’s wrong with that? It’s a buzzword. Washingtonian buzzword. Because if you read it very carefully, it’s only top-down, they’re only looking top-down. They want to get you under control so you can do it just the way they want you to do it, understand? That’s what they’re thinking about. They don’t even look at the goddamn bottom-up. How can you decide what’s going to be top-down until you understand what’s bottom-up? You have to gather it in first, figure out what the hell you’re going to do.

Like for example, you got to know your people, you know, a few minor things like that. I might add I’m being facetious, they’re not minor. Major. And the techniques you use for gathering information up are totally different than going down. And they even had the thing in there that we should address bottom up, and they never did. We should look at that in the future. And of course that’s the crucial part of the argument. That is a crucial part. And that’s why I bring that up.

So we’re going to look into those kinds of things. I’m just trying to clean that up. But we’re not going to start with the answers. I’m going to show you the outline for the presentation. **[slide 1]** I might add, this is not patterns of war, it’s not patterns of maneuver, or patterns, it’s patterns of conflict. We look at it in different ways. It’s not “pattern”, it’s “patterns”. You know, there’s different kinds of things going on.

Here’s the outline of the presentation. Got to get my glasses, I’m getting to be old. Point of departure: turned out I really didn’t intend to do this kind of stuff. Actually I was worried about fighter airplanes, I didn’t do it when we were designing the F-16, F-17, then -16 and -18. We found out certain kinds of phenomenon, and if you generalized that phenomenon, it seemed, it would apply to more than just air-to-air combat. It would apply not only to conflict; but as it turns out now there are uses in business and elsewhere, it’s coming out in business. It’s used in many different areas. And we’ll bring that out here. But that was the point where I started.

[15:00] As a result of that, knowing that it looked like it could be generalized, I was forced to go into history, what I call “historical snapshots.” And you’ll see I go all the way back to Sun Tzu, up to the present and then other people. Since I can’t look at the whole goddamn realm of military history, since you know I’d be dead before I ever do that, I take snapshots of very key areas, and then as we said before, we’re going to pull them apart and then bring them back together. In fact, this is the longest portion of my presentation, historical snapshots, to show you how different

⁵ Joint Chiefs of Staff.

things and different episodes, and how many of these ideas are flowing through to the present time.

As a result of this, you can lay out what I call “categories of conflict,” which we’ll show you soon, three categories on the next chart. Doesn’t mean you have to lay them out this way. They’re dynamic, some people like to categorize conflict, when they do they really only stay in one department, they just got three different features in one department. We’re going to operate in three different departments, totally different. We’ll show you what they are, and they’re very dynamic. And then finally, as you’re pulling all this apart and putting it back together, you go into what I call super-synthesis. Put it *all* together.

In a modern sense, what are the kind of things we’re really worried about? In order to gain leverage over our adversaries as opposed to having him gain leverage over us. And what do we mean by that? And then finally, [unintelligible] if we believe these ideas, then we should be applying them in a certain way, and I’m going to show you some of the application. As a matter of fact since I put the application, I’ve since modified [unintelligible] it’s even more crisp, even more powerful than the way I got it in here. And then finally I go into what I call, I say okay, let’s just boil it down into five charts, wrap the whole thing up into five charts, really super-condensed and compress all the information.

[unintelligible] because you can’t, these books they write on managing a crisis, got to have a checklist here, a checklist there, you can’t remember all that crap, you shouldn’t try to remember. Just like you won’t remember all these pages, but there are certain key ideas you can remember, then you can [unintelligible] in your own mind. If you’re going use this for checklists, [unintelligible] matter of fact, some guys, they wanted to use this as a sort of a checklist, I say, “I got a recommendation for you”. He says, “what?” I say: “burn the son of a bitch.” And then an epilogue.

And the reason why I took on the epilogue, I’ll preempt myself a little bit, is I keep seeing these principles of war. Everyone talks about the principles of war. And as a result of going through this presentation, I don’t understand what the hell they’re talking about, so I take on the principles of war [unintelligible]. Now today what we’ll do, we’ll go through all the way up to World War I, tomorrow we’ll pick it up and take it the rest of the way. Okay?

[slide 2] With that in mind, then, here’s what I call a “focus and direction.” First of all, to make manifest what I call the nature of moral-mental-physical conflict. We’re just not talking about people out there, it’s bodies, either be killed or kill somebody else, but the moral and mental features as well. Remember what Napoleon said: the moral is to the physical as three is to one. Now whether it’s three to one or ten to one or five to one or two to one, or whatever you want, the point is the moral is much more important than the physical.

And you better understand that, because that’s where you’re going to gain enormous leverage on your adversary. Now what we want to do is, instead of having a statement, let’s put flesh around

this. Part of this presentation is to get flesh [unintelligible]. Not only do we want to understand the physical, the mental, and the moral, but how they interplay with one another.

Next, discern a pattern for successful operations. We get back into synthesis, okay, this is a category. Remember these are the three categories: moral, mental, and physical. Categories of conflict [unintelligible]. Back into synthesis, discern a pattern for successful operations, in other words, those kinds of things we can do to gain leverage over our adversaries, and deny him that same thing against us. Not only gain leverage, but what do we mean by that though? And help us in a sense generalize what I call tactics and strategy.

Now, you know you see many people, they got this tactic and that tactic, this strategy, these checklists of tactics and strategy. But it turns out you can subsume them under a more general notion, of a very general notion of tactics and strategy. In a sense, let me dwell on that right now, I'll give you a very simple way to think of it right now, for now. The way I look at tactics and strategy, some people says means and ends, that's a way of doing it when you get into it, but basically tactics to me means for the execution, the dynamics of action. Whereas strategy is related to the scheme, the design, the architecture.

Or you can think of the tactics as being the means toward the strategic end. And I wouldn't get any tighter, because if you make it too tight, then what you're going to do is eliminate possibility. One thing you don't want to do is eliminate possibility. Because then you become rigid, [unintelligible] and of course that's exactly what your adversary wants you to be, rigid, [unintelligible]. But in any case, we'll show you we can generalize those principles.

[20:00] And finally, also in the synthesis, find a basis for grand strategy. Now it turns out, because the way I evolved it—you don't have to do it this way—in a sense I looks at the grand strategy as the connecting link between my destructive behavior on one hand and my constructive behavior on the other. I find certain kinds of behavior destructive and other kinds of behavior constructive. It's just sort of a fall, I didn't mean to do it this way. [unintelligible] And the intent's quite clear. In some sense we want to understand the character of conflict, survival, conquest, [unintelligible] and you don't have to think of it harshly. You can think of [unintelligible] it softly. As an administrator you have to worry about conflict, survival and conquest too. Or with your peers. So you have to worry about that. We certainly want to address that.

Okay, with that in mind, now what I want to do is, let's go into our first bullet. **[slide 3]** Point of departure, air-to-air. Any pilots in here or anything, any fighter pilots? You're going be familiar with some of the stuff I'm talking about. The other people you'll understand the [unintelligible]. Air-to-air. Now as I'd already indicated in the beginning these ideas actually came out as a result of our investigations and studies pertaining to the YF-16, YF-17. And what we found out after going through things, well, in fact that was the beginning of the supercomputer program, to decide air-to-air combat on the computer, who had the better airplane. And of course, then, we're

going to pick airplane A as opposed to B, C, or D, because it's a better airplane that we run it through the computer.

Of course, the idea being that those simulations, in a sense, you would like to think they sort of represent what actually takes place in the air. If they don't represent, they're not too useful. So that's always the question. So we had what you'd call a "fly before buy" program. So I made the people at that time, I said okay, if you think your goddamn computer, so everybody came with their computer program with their own simulations, so we used them all. I said we'll run them all, I don't give a crap. Because I don't know what's the best one. Everyone says theirs is the best, so we'll run it all up. Christ, it's only the electric bill anyway. And so I said fine, if you're going to do that, now I want you to— here's the catch, you tell me which one's the better airplane before we run the flight data. We're going to find out what the predictability of the program is, if it's so damn good.

And so they did that, and then we run the flight data. In some areas they were right, in other areas they were wrong. And other than that, they couldn't understand why they were wrong, they knew they were wrong, so we're going to try to educate you why [unintelligible]. What wasn't in those programs, what people hadn't thought of before, which leads to many of the ideas [unintelligible] in my presentation.

So what did we find out? Turned out to be something very simple, and so I used to call it a generalization. **[slide 4]** In a sense, at that time I said we needed a fighter that can both lose energy and gain energy more quickly while out-turning an adversary. So you'll understand what I'm saying, I'll tell you what I mean by energy.

Energy, I want to talk about energy. You can think of potential energy, and kinetic energy. Potential being related to what—altitude—and kinetic related to what? Velocity or speed. So therefore, if I'm going gain more energy than my adversary, I'm either going to gain altitude, airspeed, or some combination thereof. If I'm going to lose energy, I'm either going to have to give up altitude, airspeed, or some combination thereof, to lose energy. The reason why we use it, because there's a nice neat expression, it shows you how one's related to the other, it's convenience is why we use it, while out-turning an adversary.

You say, well, my God, Boyd, that's a trivial statement. It is today, it wasn't then, because the perception at that time was that you either want to conserve or gain energy while trying to outmaneuver an adversary. But sometimes you may want to dump it overboard very quickly if you want to gain leverage on him. And other times you might want to add it very quickly, or maybe not so quickly depending on the circumstances.

But the prevailing dictum at that time was gain energy or conserve it. They didn't even want to talk about losing it. So, what we found out though, when we saw the guys doing the flight test, they were doing that kind of stuff. Quite different [unintelligible]. In other words, suggest a fighter that can pick up and choose engagement options. There was a pilot then annoying

[unintelligible] express what do you want, the answer was, well, I want an airplane that I have the choice of engagement opportunities over an adversary, I can pick and choose. Not bad. He might not understand it, but he's right.

But now he gives that to the designer, and the designer starts fretting, who the hell's this guy talking about? Doesn't know. But if you push the argument, he says he doesn't say it this way, he said really what I want is an airplane that I can either force an overshoot by an attacker, or stay inside a hard-turning defender. So let me use my hands here like a pilot does. I'm going to make an attack on him. So someone's making an attack on you, in the rear, what you want is the ability to bend that airplane, shove him out in front, get in behind him, hose the son of a bitch down.

[25:00] Or contrary-wise, if you're making an attack, guess what: you don't want to be in the same position. Well, what does that suggest? That if both guys know that, they're going to pull the crap out the airplane under certain circumstances, right? Hold onto it. So if you just pull, you know, turn tight, well, if you turn tight, Christ, literally you spiral yourself into the ground, you can't do that. Pilot's not going to do that. So that's why he wants to pick and choose engagement opportunities. He wants to get in, get out, get in, and get out.

Why does he want to do that? Because it's not just one-to-one air-to-air combat up here. It's what the pilots like to say, many-upon-many. In other words, if you're working over one guy, somebody else is going come in and blindside you. So you want to spend as little time with a guy as possible. You need to get in, gun him, and get the hell out. Because otherwise you get tunnel vision, blindsided, you become a statistic at that point. If you knew there was nobody else there, nope, you don't. You got to be very careful. So a one-to-one joust is quite different than a melee of many airplanes going against many airplanes. Just like ground warfare. You're trying to protect yourself one way, you can get taken out from a different direction. Same way.

So they know they want to get in there fast and get out. Need a hard turn for a very short period of time, add it back on the energy, take it off, put it on, whatever the case may be. So they can get their leverage, and knock out the adversary. So what does this suggest? It suggests something like what I call "fast transients". Today we'll call it "agility," which I'll define for you later. Hoppy, skippy, jerky kind of maneuver, where the other guy obviously can't do it as rapidly. So what does that suggest?

A couple of things. Think of it in space and time. In space, you're trying to stay inside his maneuver; in time, you want to do it over a very short period of time, otherwise you're going to become vulnerable to somebody else. So if you think about it in that sense, you say, hey, wait a minute, maybe we can generalize that whole notion. Expand upon it and generalize the whole notion, not just air-to-air combat. Because you begin to think, geez, if I can operate at a faster tempo than somebody in business or elsewhere, you know, that could be a very useful thing. So let's expand upon that.

[slide 5] And when we look at that, we begin to see, we say, the idea of fast transients, I guess, in order to win we should operate at a faster tempo or rhythm in a very general sense over our adversary. Or pinning it down. Or better yet, get inside what I call observation-orientation-decision-action time cycle or loop, or we'll say later on loops, time cycles or loops, because you do it more than once, obviously. It's a feedback loop, and that's why I use the word loop.

It doesn't make any difference whether you're a Russian, you're an Englishman, an American, Chinese or what. You have to observe what the hell's going on here. Then you have to, as a result of that, looking at the world, you generate images, views, and impressions in your mind. That's what you call orientation. Then as a result of those images, views, and impressions, you're going have to make a selection, what you're going to do or what you're going to do, that's a decision. And then you're going to have to implement or take the action. Then you're going to have to observe the consequences of that action, plus you're dragging peripheral information all the time, and roll back through that loop again.

And as you well know, we call it O-O-D-A, "OODA" loop. It's easier to say right now, otherwise we have to say every one of those terms. You have to do it, I have to do it, everybody has to do it. And it's all human. Machine. You know, human beings [unintelligible] they orient, they decide, they act. Human trait. It makes no difference if you're back in the 15th century up to the 21st century. We do that thing. But note what it says. We want to be able to do it quicker than an adversary. In other words, we want to get inside his OODA loop, not him inside ours.

Why? Very simple. If we can do that, in a sense we at that point become unpredictable to him, we become ambiguous, hence unpredictable. We generate confusion and disorder in our adversary. Why is that the case? Because he's going to be generating mental images or impressions that don't match up to that continually, what, unfolding environment. They don't match up.

In other words, we're deliberately trying to generate a mismatch between that which he observes and what's really going on out there. He can't keep up. Because it generates confusion. Because as he tries to get that mental event, we shift to a new event, new event, new event, so as he falls back further and further and gets more and more out of tune with his environment, what's going to happen?

[30:00] Have you ever been in a situation sometime where you've been overloaded with something and you can't keep up? What does it do to you? We've all experienced something before.

Audience: —frustrates you.

Boyd: Not only frustrates you, but if your life's at stake, you start coming unglued. And that's exactly what you want to do, you want to pull that guy apart. Let's say I put you in a competitive

environment, as an example. You're here, I'm picking on you, because you happen to be up front, that's all, nothing against you.

Let's say I put you in a competitive environment. And let's say I'm your boss for this academic argument. And I give you a task, and you're worried about, boy, how do I do this task, because I'm going to write your OER, or you're going to get promoted, or I'm going to give you a shitty assignment if you don't do it right. And then when you're about halfway through it, about eighty percent loaded now, and I give you another task, and I say, well listen, you still got to do the other one too. And now I got you a hundred percent loaded and you're still not done and I say oh, you got one more to do.

And now you're trying to figure out, what the fuck do I do, I can't do it all. In the meantime, can he get it all? No, you got to do it. Very uncomfortable. You're going to grind yourself doing it. And that's why you also should know your people. You shouldn't give more than they can handle at certain times, too. You've probably faced that time in life and God, it's a very uncomfortable feeling. And we're all vulnerable to it. Particularly when your life's at stake.

So the key idea, what you want to do is generate a mismatch between that which he perceives and that which he must react or adapt to. Note the key word: mismatch. We'll get to that later on. It's a very key idea. Menacing and faster. And there's evidence of it over and over again. I'll give you some examples here right now.

Audience: Sir, one thing going along here, this does not imply that you have to act first.

Boyd: Nope. Remember, overall view. I'm glad you brought that up because sometimes I forget. You bring up an associated point. When I bring this up, some people go, "you go fast, you go fast," and Christ, we'll all drive each other nuts. You don't have to do that. We're going to see in a minute. All I have to do is be faster than my adversary. I can be slow as long as I slow his down even more. So if I'm slow, as long as he's slower, so it just doesn't have to speed. It can be ambiguity, deception, many other things you can do. That's what I'm saying.

That's why the guerrillas, in a sense, were in effect operating at a faster tempo than we were over in Vietnam. They were operating very slow, but Christ, we were blundering all over and couldn't even operate at their pace. We were doing things all disoriented. So we can slow the other guy down. You've seen it in basketball. Ever see a team when they start doing, Christ, the other guy slows them down so they get them out of their rhythm, they can't function. You see it in many other areas. So remember, don't think just speed, it's what: relative speed, or relative tempo, or pace, whatever you want to use.

[slide 6] Okay. Note this. Blitzkrieg versus Maginot Line mentality. They were wedded to old ideas, they were operating at a very slow rhythm or tempo. The Germans were operating fast and they couldn't keep up and eventually couldn't cope. You read it, been written up over and over

again. It's not that the Maginot Line per se was so bad, it's the mentality associated with it. They just, slow tempo, slow pace.

F-86 versus MiG-15. As they were used in Korea. Let me examine that, and give you a case. This is an interesting case. Most people thought, and they don't now, they learned better, for a long period of time that the MiG could outmaneuver the -86. And if you use sort of contemporary measures, it could.

For example: before I go through it, though, they thought the MiG was a more maneuverable airplane. But let me go through it, and show you that in a sense the -86 was a better airplane, particularly if you examine them through the OODA loop. Remember we've got an OODA loop, so let's use that as a frame of reference.

So the first "O," observation. The -86 had a super bubble canopy; the MiG had a very constrained one. So the -86 had the advantage, even though the MiG was a smaller airplane, from a size viewpoint. The -86 had a super bubble canopy, it was easier for an -86 pilot to see a MiG as opposed to the other way around. If you flew both airplanes, you know that. Well, if you're going to get a better image of what's going on, then your orientation's going to be better. That's one way you're going to get a better orientation. Plus the fact that your orientation also depends upon what? Not just the events that happen there, but your previous experiences, previous training and that. So that also gives you better orientation, so our training was also better. So better observation-orientation.

So then you make a decision. Better basis for your decision. Now what about the action? And the action was where people thought the MiG was better than the -86, it was more maneuverable. If you examine it a certain way, it is. But if you examine it in a much fuller way, it goes just the other way.

Example, let me illustrate. The MiG could out-climb, out-accelerate the F-86, throughout the entire envelope, accelerate quite a bit better. Its sustained turn was better, its instantaneous turn in some areas it was better, in other areas it wasn't as good. So you sort of group those things together, you say on that basis then, [35:00] if you're using those as the elements or features of maneuverability, you'd say the MiG is proven superior. However, there's another feature that's not brought in there. The -86 had what we called, for the first time, fully powered hydraulic flight controls. And so it turned out, you could take that stick, just like power steering in a car, you could take that stick, move it, and make that airplane flip back and forth very quickly and the MiG couldn't, much longer lag time to maneuver.

And one of the things the pilots found out, for example, is when a MiG made an attack you slide right, *thung*, you flip it quick into another turn the MiG would have a hard time, you flip it quickly very rapidly movement what we call a scissor maneuver, and stuff the guy forward and hose him down. So if he would stay in the turn, [unintelligible] then the MiG could win, but if you keep shifting directions, then the -86 just pushes the other guy right out front. So any kind of

maneuver where you're doing these very wild kind of maneuvers, and shifting from one direction to another, and you maneuver more rapid than me, you're going to gain leverage on me.

You see, that wasn't in the initial part of maneuverability, which we call the "fast transient" part. And what occurred to me is after we did the YF-16, YF-17, we found that out, this was thing that was allowing these guys to do better, and it wasn't coming out in the simulations. It wasn't brought about. So in that sense, when you bring it all together, the -86 was a better maneuvering airplane, providing you use those transient capabilities. So we can stuff the MiG out front.

Another one you're familiar with is the Israeli raid, 1976, Entebbe. They were in and out and Christ, the other guys didn't know what the hell was going on. [unintelligible] they were totally behind the problem all the way through. If you recall, they got everybody but one person out. Then you can think of many other examples. I'm just citing three.

So it's not a bad thing to use. Not a bad thing to use when you think about it. And it's not only that, you go back to World War II. Some people were already on to it, guy by the name of Jintal [PH] whose book [unintelligible] World War II. He talked about one day, he was fighting this one German, this Kraut, two different time he's talking about, and he said the Kraut did initially pretty good, but as he began to get leverage, he said he could almost see his mind exploding from his maneuvers, [unintelligible] he was coming totally apart. And he said one day it sort of happened to him, except somebody else bailed him out. In other words, he was under pressure, he couldn't cope, couldn't keep up. And he was, he remembered that, and he actually wrote it in his book. And you've seen it before.

Audience: Sir, one statement you made on the -86 and the -15, you said that the -86 had a better basis, I believe, for a decision. I'm trying to relate this to the term—

Boyd: Yeah you're talking about, because the observation—

Audience: I'm trying to relate this to the term to be able to see and feel the battlefield, so if you don't have that intuition or that experience or that knowledge—

Boyd: What did the Germans call it? What's the word, anybody?

Audience: *Coup d'oeil?*

Boyd: What do they call that? You said a very important thing, what do they call it?

Audience: I'm not sure of the pronunciation but is it *coup d'oeil?*

Boyd: No, no, *fingerspitzengefühl*. You ever heard that term, *fingerspitzengefühl*? General Balck,⁶ you heard of Balck, Rommel used it,⁷ Rommel, he kept talking about *fingerspitzengefühl*. This famous Stuka pilot, Rudel,⁸ what it means, literally, “finger”—it’s just like in English, it’s all one word—finger, “spitzen” is tip, and “gefühl” is feeling. “Finger-tip feeling,” that’s the literal. What it means is that intuitive feeling, you can just see into things and know what’s going on. It’s what we call instinctive or intuitive feel but then you’re talking about battlefield feel. They call it *fingerspitzengefühl*. They talk about it all the time.

How do you get that? You don’t get that easy, you know. Look at Gretzky, Wayne Gretzky, I’d say he’s got that in hockey, don’t you? Oh yeah, Gretzky’s got it in hockey. Any hockey fans here?

Audience: Yeah, but that goes back to the question, how much is acquired? Yes, sir.

Boyd: Yeah, how long did it take? Some of it is natural, also a lot of training and experience before he can get that. And you can think of other people that have it.

Wyly: Rudel is a good example of somebody that didn’t have it in the beginning and he began to get it slowly. And of course, there’s going to be a special on NBC tonight that is going to be interesting, I don’t know if you heard about that.

Boyd: What’s that?

Audience: Brokaw, going back to the black versus Caucasian in the athletic gifted.

Boyd: Okay. And some of us are gifted in different directions. You know, my *fingerspitzengefühl* in one area may suck compared to you, but in another area I may be way better than you.

Audience: And the importance is putting the teams—

Boyd: And putting the teams together, what you want to do is so that it compliments one another. That’s exactly right.

⁶ General Hermann Balck was a highly decorated German officer who commanded multiple panzer forces on both the western and eastern fronts during World War II. He was one of several former German officers whom Boyd talked with while Boyd was assigned to the Pentagon during the late 1970s and early 1980s. Boyd frequently references the book *Panzer Battles*, which recount several armored engagements Balck was involved in.

⁷ Erwin Rommel is one of the most famous German generals from the Second World War. Though he commanded a panzer force during the invasion of France in 1940 and was later placed in charge of the defense of the French coast in anticipation of the Allied invasion of 1944, he is best known for his exploits in North Africa from 1941-1943. His ability to move rapidly and appear in unexpected places earned him the nickname “Desert Fox.”

⁸ Hans-Ulrich Rudel was a preeminent *Luftwaffe* pilot on the eastern front in World War II. Flying close air support missions in both the Ju 87 “Stuka” dive bomber and Fw 190 fighter, Rudel was credited with the destruction of over 500 tanks and hundreds more vehicles, artillery pieces, and other ground targets. When Boyd collaborated on the development of the A-10 ground attack aircraft, he spoke with several *Luftwaffe* pilots about their close air support experiences during World War II, including Rudel.

Audience: Goes back to your people point.

Boyd: That's right, it's always people. Machines don't fight wars, terrain doesn't fight wars, people do and they use their what? Minds. So you keep track of that all the time. So if you got their minds, or you get inside the other guy's mind, you pull his socks down. He gets inside yours, he pulls your socks down. Now true, use menace, use threat, use weapons, different ways of doing it, in a very subtle, subtle way. But nevertheless that's a key thing. That's exactly right.

[slide 7] [40:00] Okay. So, what happens then, when you do that, you come up with a new conception. In a sense it isn't new, it's always been there. In a sense what you want to do, is you want to generate as rapid a change in the mind of your adversary. Quick, clear observations, orientation, decisions, fast tempo, fast transient maneuvers, quick kill, et cetera, et cetera.

In other words, for yourself, what are you trying to do? Compress the time over which you can do these things. You want to compress your time for doing it. Turning the argument around, inhibit his capacity to adapt to such an environment, cloud and distort his observations, orientation, decision, all the kinds of things you can do to him. In other words you want to stretch out his time, take him longer than you.

And that's the key idea. Compress own time, stretch out his, so you gain a favorable—note that word again, favorable—mismatch in time and ability to shape and adapt to change. Not just adapt, but shape too. And if you can get a favorable mismatch, you're going pull his socks down, rather than him pull your socks down.

You know, back in 1929, people started jumping out windows when the stock market crashed because they couldn't keep up with events. And here's your goal; and the goal, when you think of it that way, then there's a natural consequence, it comes out as a natural consequence. Because if you can't keep up, I'll tell you one goddamn thing, you end up very confused, very disordered, and if it's a life threatening situation, pretty soon doubt, uncertainty, et cetera.

Audience: Going on in my mind, sir, that has a connotation of it being offensive, when you go to the athletic field of endeavor, sometimes it can be defensive—

Boyd: You can do it on defense too. We'll get to that later on—

Audience: Yes, sir. You're not compressing your own time necessarily, you're trying to get him in a situation that he isn't, uncontrollable—

Boyd: Where you want to get him doing something where he thinks he knows what's going on, he really doesn't know, and he thinks he's winning the thing, and then you pull his socks down. But he's got an erroneous impression, he's got a fast OODA loop and he's really not reading events correctly because here's what you've done to him, see what I'm saying?

See, what happens is, what happens is people become doubt, uncertain. Let's say you put a group of people here, and when people have doubts and uncertainties, and then they start transmitting those doubts and uncertainties to one another, it begins to well up into what? Confusion, disorder, panic, and chaos. Groups start coming apart. Some very powerful notions.

[slide 8] I'll skip the next chart. We don't have to go through that one. So with that in mind, now, let's look at some historical snapshots. **[slide 9]** Before we do that, I want to come back to my statement: terrain doesn't wage war, machines don't wage war, people do and use their minds. Well, if that's the case, then perhaps we should start from the people perspective.

[slide 10] So, what, in the nature of what people think is what they want, comes their goals; so what does a goal mean? Look at human nature. As human beings, what do we want? First of all, we want to survive. Otherwise, jump out the goddamn window. Now some people do that, but as a corporate body we normally don't do that. And you tend to want to survive on your own terms. You don't want to have to survive where you're getting beat up by somebody else, and have to do what he wants to do, you want to have some freedom of your own, some dignity in your own survival. Which suggests you want to improve your own capacity for independent action.

Okay. But remember we live in a world in which we have limited resources. So if you improve your capacity for independent action, by taking resources from somebody else, he may not like that too much, and vice versa. So what happened, we tend to diminish his capacity for independent action, or deny him the opportunity to survive on his own terms, or if it gets particularly hard, make it impossible for him to survive at all. In other words, it's a natural human condition, it's just the way it is.

Like in the Marine Corps, there's only so many promotion slots, like say ten for some, and if fifty guys compete, somebody's going to lose out. So I'm not talking about survival just in terms of physical, but moral-mental, more subtle aspects too.

And the implication is clear: life is conflict, survival, and conquest, what is soft, moderate—

[44:32]

[End of Tape 1 Side 1]

[Begin Tape 1 Side 2] —operates as an automaton, squeeze them and it's all going to come unglued, and won't be able to adapt. Got different mindsets. American industry's proven that's exactly what they had relative to the Japanese. They're kicking us in the balls every goddamn day without a doubt, you should see it. We say, "goddamn, we know we're better," so we can hang on to the same old view, get hammered one more time. We had our [unintelligible] in Vietnam but they don't believe it yet. Okay? So what I want to do now, is I want to show you some impressions that came out of my, well before I do that, I want to make one more comment, excuse me.

[slide 11] When you start addressing conflicts around conquest, you begin, two things begin to surface. The idea of evolution by natural selection, the Darwinian concept, and the conduct of war. Now I know that some of this stuff is a challenge, but there's some great points of view in there that are quite valid. Like [unintelligible] war. So if you can blend these together, pretty soon you're going to get insight into why you get hammered.

You can't know military history by only looking at military history. Now I know you're all looking at me kind of strange. There was a proof, which I'll talk about, talk about in another [unintelligible] by a [unintelligible] named Goedel in 1931. Kurt Goedel.⁹ He said you cannot determine the consistency of system within itself, or you can't determine the character and nature of a system within itself. So you just can't understand military history by only looking at military history. You got to look at related kinds of things too. You know, a military historian may take exception to that, but that's tough, that's life. Of course they're still back in the 17th, 18th century. If they'd look and study some of this 20th century stuff, they'd understand this.

Now I got this idea that Goedel, Heisenberg,¹⁰ the second law¹¹ and many other people can be applied today, where you can pull the other guy's socks down if you do things a certain way. And as a matter of fact, as I was explaining to the colonel back here, I ran the experiment on myself, an unwilling participant. And I'll tell you, you never want to go through it. Very, very bad thing to go through. I'll try to say more about that later on. I was an unwilling participant but I didn't know it at the time.

What I'm trying to tell you, these things are very powerful, there's some very powerful stuff here and there are some things we found out in the 20th century we're still not applying. We still look back in the 17th, 18th, and 19th century. I'd like to think we at least understand the 20th century before we depart into the 21st. And if you're going to say, "well, Clausewitz is my model," Christ, that means you haven't gone much beyond 1832. And some people don't realize they're using Clausewitz as their model, they're making a big mistake even though they haven't read him. But I look and [unintelligible] gee, this is Clausewitzian. [unintelligible] in the meantime they're getting cut to ribbons. I'm not just talking about Clausewitz. I don't care whether you take Jomini as your model, or whether you take only Sun Tzu. There's other ways to look at it. Remember we said we're looking for those invariants that criss-cross among many of those things. Okay?

[slide 12] So knowing that, then, here's an impression that I form. An initial impression. I'll let you read it, then I'll comment. [long pause as audience reads slide] Note the underlining, it's very important, the underscoring. Let's hit the first one. Note what I'm saying: variety and

⁹ Kurt Goedel's "incompleteness theorem" posited that the consistency of any system cannot be proved from within the system.

¹⁰ Werner Heisenberg's Uncertainty Principle stated that the very presence of someone observing a system introduced an element of uncertainty into the system being observed.

¹¹ Boyd refers to the second law of thermodynamics, which states that the entropy or disorder of a closed system will always increase over time.

rapidity. You can avoid danger, diminish adversary's capacity for independent action, and gain leverage over him et cetera. Why is that important? Very often you understand how important it is when you turn the argument around, come in from the back side.

Let's assume we don't have variety and rapidity, what's that mean? It means you can't adapt and you become predictable. And in conflict that's the worst position to be in, where you can't adapt and you're predictable. The reason why you want variety and rapidity, is it allows you to adapt and remain unpredictable to your adversary, which gives you leverage. That's the reason why. So if you have a very narrow response repertoire, they're going get wise to you pretty soon and they're going to kick you in the [unintelligible] over and over again.

Okay, and this one here, the second one. Note then: not only that, you're working with other people, so you're going to have to be able to cooperate with them and vice versa. Or what I call, harmonize your activities. So you can have focus, you can have direction, you can gain leverage. If everybody wanders off by themselves, all you've got is mass entropy, or internal friction. The whole thing comes unglued and you'll be scarfed up as individuals. So without it, you're going get leveraged by other people who know how to cooperate. You'll be isolated.

[05:00] And note this one. Even if you have the harmony, you can't just sit there and have these other three and let the world take care of you. You got to take initiative. You know how I define initiative? Very simple: the ability to think and take action without being urged. The ability to think and take action without being urged, that's the key thing. Very simple.

So these are very important qualities: variety, rapidity, harmony, and initiative. So put more simply, if you can get that, then that's going to permit you to do that, and later on I'll show you how we take these two things and throw them together, variety and initiative, OODA loop, and see how they play upon one another, how one works with the other.

[unintelligible] We'll be building up to that. Sort of give you these initial impressions, I just want you to get a feel for this kind of stuff. Everybody wants the perfect maneuver, there are no perfect maneuvers. In fact, I remember when I was out in Nellis in the 50s, guys had this so-called "last ditch" maneuver, but what if that doesn't work? What are you going to do, die? You've got your favorite maneuver, it didn't work. I said, Christ, that's narrow, guys, you better have a repertoire of maneuvers. If that didn't hammer him, you pull the son of a bitch apart. So if you only got one thing you can do and the guy gets wise, that's the end of the line for you, if he gets wise. It's over. You've been had.

For you people in communications, any communications people here? Nobody? If you have a narrowband radio, you can't examine the other bands, can you? If he's got a wideband, he can examine yours, plus he can operate the other stuff and be hosing you and you don't even know it. Same thing. So it's like, variety and rapidity are like having a wideband filter and the other guy has a narrowband filter. You want the wideband filter. And if you're only using Clausewitz, you

got a narrowband filter through which you're looking at the world of conflict. That's what I'm trying to tell you.

[slide 13] Okay, with that in mind, now let's go through the history. I'm sure many of you have read, Sun, how many people read Sun Tzu? I'm sure a lot of you have read Sun Tzu. And you'll get some arguments about when he wrote the thing, or whether he or somebody else wrote it before him, I'm not going to go through all that. You know, 400 BC, 500 BC, if I took the average around 400.

But his theme, harmony. How many people saw that? In his very first chapter, what is he talking about? The citizens have to be in accord with the, the subjects have to be in accord with the rulers of the state, you have to be in harmony with the rulers. In other words, if you can't get the people working with the rulers, you can't go to war. As a matter of fact, that's what the Vietnamese did to us. They got us so we weren't in accord with one another, and we had to depart from that war in Vietnam.

Deception, and more than once, it's laced through, all war, his famous statement, is based on deception. We're going to look at that detail later on, how that plays with other stuff. And the idea of speed, rapidity, or swiftness of action. In fact he says the essence of war is speed, rapidity, swiftness of action. Brings that up. And then in a very indirect way, brings this thing, what I call fluidity of action. Remember he said an army should behave like water going downhill, seeking the crevices, avoids the gaps, and strength against weakness. That's the fluidity argument.

Now if you recall, when you first read the thing, if you never read it before, first thing you do, you say, what's this guy saying? Looks like he's saying some important stuff, but he's using metaphors, analogies, and aphorisms, and you got to read, pretty soon, it's a polite way of discussing conflict. In other words, the Chinese are bending themselves at the knees [unintelligible].

Fluidity of action. Why? Three things you can get advantage of from that, what do you get? One, gives you the opportunity to do what? Strength against weakness. That's one idea that comes out of it. The idea of moving along paths of least resistance. And the third idea from fluidity is what? The idea of being fluid and you're what? You're adapting. Adaptability. Strength against weakness, paths of least resistance, adaptability. All three of those in [unintelligible]. So we take all these together, harmony, deception, swiftness of action, fluidity, then with those four together, you can play the so-called dispersion/concentration game. Not just concentration, but also dispersion.

So what do we have in our principles of war? Concentration, no dispersion. But Sun Tzu had both. How many people are infantrymen here? How would you like to take a bunch of guys, nice and concentrated, and attack against a machine gun? It'd clean your ass out. It's concentrated. You say, wait a minute. I want to spread them out a little bit. Yeah.

So what about that? You know, we say, well, we got a caveat; when you keep caveating the principle of concentration, pretty soon there's no meaning. That's just one example.

Okay then, by playing all these together, you can generate what I call surprise and shock. Too often we treat surprise as input and shock as input. [10:00] I don't surprise you, you don't surprise me. I do certain things, you can't keep up. You become surprised. Surprise is an output, not an input. It's a reaction, because you couldn't keep up, you didn't pay attention, whatever the case may be. Or you're overwhelmed by what has happened.

The only difference between surprise and shock, as I'll bring out later on, shock is just a hard form of surprise, it's also an output. You get paralyzed, knocked so hard you can't cope. But they're both output. And they're both, I might add, in conflict, very desirable features to have the other guy have, not you.

You don't surprise me. I'm really surprised when you do certain things and I don't react, I'm surprised. [unintelligible] Output. You look at the principles of war, they got them all screwed up. They got input mixed in with output, that's another bad thing about them. They can't even get the goddamn thing sorted out right.

So you want to ask yourself, what kind of things do I do besides these, if I want to look at a deeper sense later on, that permit me to get that thing we call surprise out of our adversary? In other words, where he is not able to react, or keep up with events, so he can do the right kind of thing?

What do you want to call it? Surprise, if it's a softer form, or a harder form, we call it shock. You don't give shock, it's a state of shock you put the guy in. So that's his theme.

And his strategy, you all heard this, probe enemy's organization, disposition, strength against weakness, patterns of movement, et cetera. All those kinds of things. Not only that, he had in the last chapter, remember, he talked about all the uses of spies. In fact, he used the term "double agents" in his day. We thought we invented it, it goes all the way back to 400, 500 BC. He's talking about double agents. In fact, that was his most valuable agent, if you recall.

So get inside, know your adversary, that's the thing. Know your enemy. Any way you can. As a result of that, then you can shape his perception of the world, so you can manipulate his plans and actions, or his strategy and tactics. Or undermine his plans, undermine his strategy. If you don't have this, then how are you going to shape his perceptions? You can't do it. That's why it's important.

Of course, obviously you want to give him a rather incorrect or corrupt perception of the world so he can't cope. Then, attack enemy's plans is the best policy. Or attack his strategy is the best policy. Next best is disrupt his alliances, in other words split him up, another variation of what? Split him up, another variation of strength against weakness. Third best is attack his army. In any

case, before you attack his army, you want to do all the other things, because then you put the army in what? A weakened condition, so it comes unglued. And then attack cities only when there's no alternative. For anybody who's fought in a city, infantrymen, oooooohhh, that's mean stuff. It was mean in his day, it still is today, even though the instruments have changed.

And then he talks about these *cheng/chi* maneuvers, as the basis of throwing your strength against his weaknesses. So it raises the question, what do I mean by *cheng*? Well he used some gifted language there, you read into it though, one's the ordinary, and the other's extraordinary. *Cheng* is the ordinary, *chi* is the extraordinary. You can also think of *cheng* as being the direct, and *chi* as being the indirect. *Cheng* is being the obvious, *chi* is being the hidden. More in that sense: *Cheng* being the deception, *chi* is being the surprise. [unintelligible]

Different ways you can think about it. Think of physical, the moral and the physical. In other words, it's the combination that permits you to get leverage. If you don't have the *cheng*, then how are you going to be able to set up the *chi*? Think, when you're trying to use the *cheng* to get them to expose themselves, so you can run through that exposure.

In other words, it's like a variation of what we call today, what? Anybody? Combined arms. What's the virtue of combined arms, in the physical sense? You use one arm, so a guy tries to defend himself against one arm, it makes him vulnerable to another arm. Or vice versa. There may be a better term than combined arms, I don't think we'll use them. They're complimentary arms, you're really talking about complimentary arms. Use one, it acts as the *cheng* to get his attention, as a result, by trying to deal with one, he makes himself vulnerable to another one.

So when you're using combined arms, in a sense if you do it correctly, you're doing the *cheng/chi* game. And the desired outcome: you want to win the whole nine yards without fighting. Subdue the enemy without fighting. In any case, avoid a protracted war. You should see all the reasons why he wanted to avoid a protracted war. But then you got to give Mao credit. I'll preempt myself, he understood it, as we'll see.

Obviously the regime doesn't want a protracted war, but what about the people going against the regime? If they can promote a protracted war, and the regime can't handle it, they're going to come unglued. Beautiful logic. That's why it's the guerrillas' point to run a protracted war, if you can run a protracted war, Christ, they say the goddamn regime's corrupt, incompetent, can't even put these guys down, they're supposed to be defending it. [15:00] Just pulling the regime's socks down, drop by drop, piece by piece.

Remember, that's from the regime's viewpoint, avoid protracted war. From the other guy's viewpoint, not the regime, the other part say, hey, that's good, they can't handle it, we'll embarrass them, looks like they don't know what the hell they're doing.

Audience: Sir, clarification so you don't lose me, your comment on dispersion and concentration.

Boyd: I'll get into it deeper later on, but go ahead.

Audience: Looking at it as viewed from the commander, if he concentrates his force, that implies mass, but if you're looking at concentrating forces, that could imply dispersion then. That's a different—

Boyd: Yeah, but you didn't say "force", you said "forces."

Audience: Yes, sir, but then you directly said, do concentration to the principles of war, mass, and if you look at—

Boyd: No, you said, principles of war, mass. I didn't, so therefore why use it then? You just use the term.

Audience: But concentration to me, looking at a commander, if you look at concentration of "forces," that implies maybe a mass, maybe the mass of the entire force, or a dispersion. If that's where I'm wrong, I'm trying to follow—

Boyd: That's alright. But I prefer not to use the word "concentration" because of the excess baggage it carries to this day. It carries a lot of excess baggage.

What's the virtue of multiple thrusts, since we're on this? Why do you want multiple thrusts? What if everybody goes up in the line together? Like we were just discussing before we came in here, since you raised the point. If everybody moves together forward, they're all in line together, how, if the whole line moves forward, how can you get at the other guy's flank? You're just going push his line back. He says, we're going to attack his flank. No, all you do is just push him back and have casualties.

So you want these thrusts going in there, because wait a minute, you got a flank too, you're trying to get at his flank. That's right. It's true you got a flank. It's not that you're trying to get at a flank, the key thing is an exposed flank. If I got a tempo or rhythm faster than my adversary, and I'm penetrating, he doesn't know where the flanks are, you do, you're carving him up, he can't carve you up. The issue's not flanks, exposed flanks are the issue.

And so if you have a lot of ambiguity and deception, you're running on through there, you're going pull him apart. Go look at the German campaigns or Russian campaigns, et cetera, all those thrusts that are going in there. And then look at the reaction of the people: they come unglued, they don't know what the hell's going on. Very powerful.

As a matter of fact, so I won't forget it, the initial plan for Normandy, you only had three thrusts going in there. Montgomery, to his credit, complained like hell. People got mad at Montgomery, but he said, "hey, wait a minute, this is pretty goddamn risky," he forced them to add two more. They had five going in there. Because what you do is you generate what? More and more ambiguity in the adversary's mind of what's going on. You slow down his tempo to respond to

that correctly, even on the spot, let alone in the fact that, we'll talk about later on, the tremendous deception campaign where they locked up a lot of the Germans at Pas-de-Calais area. Very important.

[slide 14] Okay. With that in mind, let's start stepping forward here in time. So here we have some early commanders: Alexander, roughly around 300 BC, Hannibal around 200, Belisarius around 500 AD, Chingis Khan around 1200, Tamerlane around 1400. [unintelligible] The key thing I'm trying to bring up with all these people, seemed whether they read Sun Tzu or not, were consistent with his ideas, they were very extraordinary commanders. However there was a difference: the western commanders were more directly concerned with winning the battle, while the eastern commanders were closer to Sun Tzu, in that they wanted to have their adversary shattered even prior to the battle so they came totally unglued.

You have to understand Chingis Khan and Tamerlane had access to Sun Tzu's ideas, remember they conquered the Chinese empire state which had access to him, so it's not surprising. And all of them, whether they knew this term or not, were playing a *cheng/chi* game. So you tend to see that kind of thing. Okay?

[slide 15] So then looking at historical patterns, let's keep in mind the ideas of Sun Tzu and let's see if we can find out those situations where this *cheng/chi* game has been played, tactical theme and the grand tactical and the operational, as we use that term today.

[slide 16] First let's look at the tactical theme, early tactical theme. And you'll notice I truncated at 1400. The reason why I truncated it there is because of weaponry.

And they talk about two kinds of troops, light troops and heavy troops. We have those today. Look at the role of light troops, and look how they interact with heavy troops. And if you read that very carefully what you're seeing, the light troops, in a sense, in some sense sometimes they're acting as a *cheng*, and the heavy troops are the *chi*. Or it swings back the other way, see it right down here. You're combining operations. [unintelligible] Use one, so when a guy tries to defend himself against one, he sets himself up against the other.

[20:00] So in combination, they're able to play this game, so they employ the maneuver action with the light troops and the thrust action, the hammer action with the heavy. We see that all the way back. So in a sense it's the *cheng/chi* game.

[slide 17] Okay, now let's go in the battles. And here's—you may have seen this schematic before—the battle of Marathon. We have the Greeks up here, thinned out center and stronger wings, going against the Persians in a tightened-up formation, and the Persians pushed back the center, the wings came in and attacked the flanks, they tried to reorganize themselves to deal with it, they become totally confused, and of course they take them out. It's also an example, an early example of what we call the double envelopment scheme, whether they intended it or not, there's a lot of argument on that. But you can see that kind of thing.

Okay, that's all I wanted to [unintelligible] there. **[slide 18]** Then we see the battle of Leuctra, where we have the Spartans on top here, and the Thebans making the attack under their commander Epamonidas. In fact, they were outnumbered almost two to one. But note what he did, he thinned out his center and right wing, refused them or pulled them back, put the stronger troops in here, so at the point of contact he had strength against weakness. In other words the guy was weaker than he was, even though they had more troops. And of course [unintelligible] stretched out, and it's a single envelopment scheme.

In fact, how many people have read Liddell Hart's book, *Strategy*?¹² I don't necessarily recommend it too highly, but one of the things he said was that this was a good example of the oblique order, he called it oblique order, you want to keep that in mind. Well, you can't think that schematic anymore, that doesn't do it. But there is a good idea in it, if you think about it correctly.

[slide 19] And the Soviets, particularly Marx-Engels, understood what he meant, though it's not in his book. Unequal or uneven distribution is the basis for getting at it. If you remember, for you people Sun Tzu even said before these people, remember what he said: he who tries to prepare and reinforce everywhere, is everywhere weak. And later on, Frederick the Great said he who defends everywhere defends nowhere. And Napoleon another [unintelligible]. And that might be where they come up with the idea of concentration, in other words we're going to concentrate, we don't want to [unintelligible]. You got to be very careful when you do something like this. There's another way of looking at it here, I'll show you in a minute.

[slide 20] In any case, moving on, [unintelligible, slide transparencies shuffling constantly] the battle of Leuctra, excuse me, the battle of Arbela. Where we saw Alexander going against Darius, where he's greatly outnumbered, put his weight over on his right, and he made his attack in here. In the meantime, Darius' troops thought they saw weakness here, there was a gap in the front, so Alexander strode toward the gap, also in the direction of Darius, Darius, he and the troops saw that, Christ, picked the wrong chart here. **[slide 21]** And of course, then he went through the center and pulled him apart. So it's an inside out, single envelopment scheme, what he was doing. Okay?

[slide 22] Now we look at the famous battle of Cannae. [unintelligible] Okay, the Romans outnumbered the Carthaginians and what they did, what Hannibal did, is he put his weakest troops forward here, and the Romans pushed them back. He had his stronger troops in between the wings, heavy cavalry on the left and light cavalry on the right, and as they walked into the sack, the wings closed in.

¹² B. H. Liddell Hart, *Strategy*, 2nd ed. (New York, NY: Meridian, 1991). Hart was a British infantry officer in World War I. His experiences in the trenches of the western front influenced his later writings on military theory, where he explored methods for victory that did not require bloody frontal assaults. *Strategy* discussed this "indirect approach," which Hart refined throughout his writings in his lifetime.

In the meantime, the Roman cavalry, excuse me, the Carthaginian cavalry had driven the Roman cavalry off the field, they came back, and of course then they fought a battle of encirclement and annihilation. [slide 23] Here they are trying to reorganize themselves, [unintelligible] formation, of course they were slaughtered. And depending upon whose account you read, the Carthaginians lost about 7000 troops, the Romans lost between 50-70,000. So it was a rather dramatic victory.

[slide 24] What's my point of all that? That those weren't— concentration wasn't necessarily the principle. Unequal distribution, you talk about unequal distribution, you talk about strengthening up some sectors, thinning out other sectors. So you actually, in a sense, have both the idea of dispersion and concentration there, when you start doing that. Some areas are thinned out, other areas are concentrated. And all of them [unintelligible]. And we'll see how as we come up to the present day, it's a very important idea, unequal distribution, it's a very important idea, unequal distribution. [unintelligible]

Also they talk about, even though they talk about moral factors, and so forth, [25:00] we don't get a very deep insight into that, so we're going to look at that more as we come up to the present time. Okay?

[slide 25] So moving forward, let's go up to Chingis Khan and [unintelligible]. Incidentally, you might think I misspelled it, in the books it's spelled differently and I don't know who's right. So I just spell it all different ways. So here it's called Chingis Khan, in other words Chingis Khan with a "J," and then you see Genghis Khan with a G, and I don't know. So I didn't misspell it, it's just the way it is.

Okay. Key asymmetries: the idea that they had superior mobility over their adversaries, superior communication, superior intelligence. We're not talking about intelligence here but intelligence service, and superior leadership. The kind we call more today by general intention, instead of having detailed orders, general intention of what's to be done, and the local commanders on the spot decide *how* it's going to be done. Okay, very modern in that sense.

So with these concepts, these themes, note all this kind of thing he's doing, in other words literally trying to pull his adversary apart. You see that. In conjunction with propaganda and terror, used it very cleverly. In fact, one of the things they would do, if they had to take the city, which they didn't like to do, it would cost a lot of troops, and they'd slaughter all the people and let a few of the people go, so you tell the other cities what's going to happen to them if they didn't surrender. So you see they got a combination of propaganda and terror.

Another thing they would pull off if they wanted to take a city, they'd gather all the subjects out from the outlying areas and they'd march them in front of the Mongol troops, so if the city had to defend itself it had to clean out their own people first. These were nice guys.

And of course this is the basic idea. Okay? Now, let me give an example here in a sense of how they operated. **[slide 26]** They were not too concentrated, they were almost always outnumbered by their adversaries. Look at this schematic: the date, going into the Kizyl-kum Empire, in fact that's found in the Afghanistan area today. And we see here, take the scale models, for example. They're superimposed, you find out they're coming on a front over 500 miles wide, 100,000 troops on a front 500 miles wide. They're outnumbered by their adversaries so they're spread out [unintelligible]. So, concentration didn't seem to bother them too goddamn much. Initial column here, came in here, and they fought a lot of skirmishes on this front, and [unintelligible] roll them up, Persian guides, they would stretch their force out along the river, in the meantime Chingis Khan would command this column, finally they would all come together and conquered the whole Kizyl-kum Empire. Multiple thrusts. They did almost all their campaigning. So they weren't as concentrated as their adversaries. And not only that, but they were outnumbered.

[slide 27] So it raises an interesting question: what's going on here, can we apply these ideas today? So it raises a rather interesting question. Even though outnumbered, why were the Mongols able to maneuver in widely scattered arrays without being defeated separately or in detail? They did that, over and over again. And we'll come up on an answer, I'll use some present-day data to support that. **[slide 28]** I'll let you read this and I'll comment on it.

So if you can have all these kinds of things and your adversary doesn't, you get inside his OODA loop here, they don't get inside yours. You know what he's about, he doesn't know what you're about. As a matter of fact, the Mongols were so good, they got so deep into their adversary, that down in Genoa and Venice, they knew where he was born in, Genoa and Venice, nations that didn't know anything about the Mongols. So outnumbered Mongols, the result was pretty impressive, by seeming to come out of nowhere, yet be everywhere, hence all these things, and bring adversary's collapse.

Well, why were they able to operate dispersed? Because they understood a fundamental truth here about those things. If you can operate at a faster tempo than your adversary, you can play the dispersion/concentration game at its widest possible sense. If you operate slower, you're going to have to get concentrated, because otherwise you're going to get torn to ribbons.

Not only that, Rommel understood that in the desert. The British complained down in 1942, 41, against Rommel, Christ, they were too spread out, that's why Rommel was beating them. Rommel was sometimes very spread out and sometimes concentrated too, but they didn't realize he's turning over his operations much more rapidly than the British, and pulling them apart.

How many people in here have read Clausewitz, anybody? You ought to read him. Book eight, chapter nine, where he has a long discussion about concentration and speed. In fact, he didn't understand it himself. He says act with the utmost concentration, and later on he says it's the highest possible principle. Maybe that why we got it as a principle of war, because it came out of Clausewitz.

But then when he goes into the discussion, he shows four exceptions on the idea of concentration. [30:00] Four exceptions! Well, if it's the highest principle, then why do you have an exception? Not only that, when he talks about speed, there's no exceptions. He says act with the utmost speed, act with utmost concentration. But concentration's the highest principle. And then when you read between the lines of concentration, if you can operate fast you don't require to be concentrated. If that's the case, then the premier idea's speed, not concentration. Because with speed, you can play the dispersion/concentration game; in fact, you use it in order to concentrate on your adversary. So where in our principles of war do we have the principle of speed? Not there.

And that's what the Mongols understood, they could operate— so Rommel and the other guys understood, and that's why if you could set up a tempo or pace faster than your adversary, run these multiple thrusts in there, you can get at the other guy's exposed flank, so they are exposed, he can't figure out what you're up to, so you're pulling his socks down and he's not pulling your socks down.

So to get you the facility to play dispersion/concentration game in its widest possible sense by doing that, you can play dispersion against concentration like *cheng* and *chi* too. In other words, you can think of it as a variation on *cheng* and *chi*. Kick your guy, so he doesn't know what you're up to.

Go ahead, read. Book eight, chapter nine of Clausewitz. You'll see it right there. Yet earlier on, he says it's the highest possible principle. Well, if he finds out he can't violate speed but he can violate concentration, tells me that speed is the highest principle. So that's an internal contradiction in his own goddamn treatise. You want to challenge me on it? I got the book right here and I'll show you. So people say you got to act with the utmost concentration all the time and they say it's the highest principle, I say then they don't, I guess they're not too accurate, mentally or otherwise.

That doesn't mean you don't operate concentrated sometimes. Remember, I said you could blend *cheng* and *chi*. And of course that was part of the argument. I tend to use the word "focus" rather than "concentration" because I think concentration has too much excess baggage. So I think we ought to get away from that goddamn idea of concentration because of the excess baggage.

Let's put a new word in there, so we can define it the way we want to. And some people want to call it "focus of effort," I would say, well, why don't we use "focus of efforts" [unintelligible] so we be sure, that you know, we can play it in the widest possible sense. Give yourself more leverage against your adversary, deny him the opportunity of gaining leverage against you. Because people, when you use a word, they tend to interpret it a certain way, so instead of actually giving you opportunity, it gives you constraint. And you want to design things so it gives you opportunity, not constraint, in so far as possible.

Audience: So to follow that, sometimes our terminology constrains us because it's not general enough—

Boyd: It may not be intent to do it, but it's an accident, but as soon as you see it, you better correct it. If you don't, it's just going go on, and it's going goddamn grind itself in deeper and deeper. That's why I always worry about words, sometimes I do it to myself, "hey, that's bullshit," all I'm doing is, I got to get rid of that and come up with something new, even though I don't know what it is right now. And you're always going to be doing that. Things change, that's part of that variety and rapidity, you're changing. You got to learn how to do that. Okay?

With that in mind, let's move closer to the present.

Audience: Colonel, could I ask you a question on your last slide—

Boyd: Go ahead. Last slide—

Audience: Basically the idea of terror, in other words, scaring your enemy badly enough before you get there so far as to unhinge him, sort of like the British did in the Falklands, they said we're bringing the Gurkhas, and they're going to do bad things to the Argentinians when they catch them. Somewhere in your presentation, do you get to how we might use that today, given, you know, Congressional rules of engagement and media coverage [unintelligible]. One of the things you're getting at with the Mongols here, is they terrorized people a long time before they actually showed up.

Boyd: Well, we've got things today called terrorists, as a matter of fact. We call them terrorists, state sponsored terrorism, et cetera. And the guerrillas used it very heavily. You got to be careful how you use it, I'll be talking to that later on. One thing you want to do, you want to know your adversary; if you use terror, you also may tend to actually goddamn build up his resolve and cause you big problems then too. In other words, you unify him against you. So if you're going to use that terror, you better understand how you're going to use it. Will it really pull him apart, or is it going unify him against you? You just can't say, well, we're going to use terror, it may blow back on you like you wish you'd never had happened blow back on you.

[35:00] Even if you could do it. Right now we have a lot of constraints, I understand that. But even if you could, you still want to be very careful with that stuff. It can blow back on you. And not only that, you have a different world today. Remember, the world we talked about back in here, they could run an operation against some goddamn empire, some group, nobody else even heard about it because they didn't have the communication. So by the time they heard about it, it was already over, plus they could control it much better. Today, with all the TV and mass communication, you do something like that, you're in trouble. Remember, the world's changed, we got to change whether we like it or not. If you just say bullshit, I'm going still do the same, you're still operating back in an earlier century and you're going get cleaned. You're going get taken out.

Audience: Sir, I think what he was suggesting was that some of the things the Mongols did, terror, propaganda and so forth, are inconsistent with American values. Can you address—

Boyd: Oh, I understand that. I understand that. And I will address that.

Audience: Okay.

Boyd: If you're going, see, here's the bad part of— Go ahead.

Audience: To me, sir, that leads to us being very predictable.

Boyd: Not necessarily. You mean if we can't do terror, we're predictable? There's many other avenues you can operate on. And remember, if you use terror, remember, we put ourselves up in the world being true to our vision. We got our Declaration of Independence, our Constitution, all that, so that if we go against it, all you're going to, you're going to alienate the rest of the people. Those dirty bastards, they say one thing and they do another. And I'll get into that later on. That's a moral issue, and you get taken out on a moral issue if you do that. And that's the reason why you got to be very careful.

Audience: That's what I'm getting at, is somewhere down the road—

Boyd: Yeah, my strategy, particularly in my strategy. I get into that moral issue, I don't get deep into here, but my strategy I get very deep into that. And so if you say, I am this kind of a guy, you put, you know, television, TV, people out there all the time, and then you do something different. How would you like it if I were a friend of yours, or pretended to be a friend, and I tried to present myself one way, and I'm screwing you in the ass in a different way? You wouldn't like it after a while, would you?

Well, guess what, nations are the same way. If you present yourself one way, start doing something else, you're going to alienate yourself from other people. We're the ones that subscribe to those values, now are we going to stick to them, or are we going to become terrorists, and we got to erase all that goddamn stuff and get down in the gutter with those other bastards.

I have a long— Mike knows in my strategy pitch I take that stuff head on, because I lay it out how the subtle twangs can get you in deep trouble. I can give you a hint of it right now. Do you like a person that promises one thing and delivers something else? What if I tell you one thing all the time, and I'm doing something else? You wouldn't have much respect for me, would you?

In a sense that's what you're doing, but in a much sharper, harsher sense. Now, it may be justified under very extreme circumstances, and you can justify it, fine; but as a basis of operations without those extreme circumstances, you're going to be in deep trouble. In other words, thou shalt not kill. We believe that except we go to war, we've got to go. But in the meantime, we understand, we've got that written in, we have to do that. And we're only going to do that under very certain kind of circumstances. And if you're going to do terror, you can only do that

under very certain kind of circumstances, and particularly the way we look at the world, we're going to be more constrained with that than many other people, as you've already cited. But that doesn't mean we have to throw the towel in. Did I see another hand?

Audience: Terror is also a word, sir, that carries a lot of excess baggage with it—

Boyd: That's correct—

Audience: —and we're just trying to get inside the decision loop and create this confusion and chaos—

Boyd: —that can be regardless of terror—

Audience: —that's the terror—

Boyd: If I get inside the guy's decision loop, he starts coming unglued. He's terrified.

Audience: Well, that's exactly what I was getting at, in a case like in the Falklands, the British said we're bringing the Gurkhas—

Boyd: I know, because people really fear the Gurkhas, that's right, I understand. It's probably the Latin mentality maybe more than other kinds of mentalities. I don't know, maybe I'm being racist and I shouldn't be, but my suspicion, from what I hear, being an American, I guess I've been preprogrammed, they tend to be more emotional.

[slide 29] Okay. Battle of Leuthen. I don't want to spend a lot of time on this, I'm just, since a later theorist used it, I wanted to bring it out. All it is, is a more modern replay of Leuthen, where Frederick the Great brought his troops in and rolled up the Austrian wing from bottom to top here. Sort of another operation going on here, *cheng* operation going out here. [unintelligible] He was outnumbered almost two to one. Just sort of a single envelopment or single outflanking scheme. Okay?

We all want to take a five minute break or something? It's a good time. Let's take about five minutes.

[tape pauses, then begins again]

[slide 30] [40:00] Okay. Now, let's move on then. I'm digressing too much here. Move closer to the present. 18th century theoreticians. Here we see these people, Saxe, Bourcet, Guibert, and Du Teil. And the theme associated: primary plan or several branches, primarily associated per se. Mobility and fluidity of force. Cohesion, in other words, cohesion of force. And with these things then, they can play the so-called dispersion/concentration game. Napoleon played it very well, I might add. We'll show you the way he played the dispersion/concentration game.

And this idea here, actually Liddell Hart brought it out, he brought it out by looking at Bourcet's stuff, and also by watching or observing Sherman's operations in the south. And so it operated on a line to threaten alternative objectives. He didn't understand his own concept, I might add, point that out to you. [unintelligible] operating on a line to threaten alternative objectives. The idea being if you have alternative objectives, you operate between them, the guys doesn't know what to do, so he tends to defend both. So that at the last moment, you have a large fraction of your forces going against him, I mean a large fraction of your force going against a small fraction of his, you get strength against weakness. In other words, you put the guy on the horns of a dilemma.

You know what he said? He said it's deception. That's not deception, you're trying to deceive the guy, you're not trying to deceive— you want him to know that you don't know where you're going. That's ambiguity. It's ambiguous. That's one of the things in multiple thrusts, you're generating ambiguity. You got all kinds of impressions in his mind. We'll point out later on, mental friction or mental entropy. It's why he can't cope.

In any case, concentrate direct artillery fire at key points before— see, they didn't have much indirect fire at the point, so primarily direct fire. And the action, note these things. I got the wrong chart here. How do I do that? Somehow I'm slipping underneath. Okay. So Napoleon's very familiar with these things, note what I'm saying, very familiar with these guys. The idea, here's the key thing, ambiguity, deception, rapid/easy movement. These are the ingredients you use to generate surprise. This is the input, that's the output. Ambiguity, deception, rapid movement or speed, rapidity. So these combinations permit the surprise, the other guy can't cope, can't keep up, so they become surprised. This is the action, this is the reaction, when you look at these operations.

But then in later campaigns, we'll see what happens later. We as colonists, the Spanish and Russian guerrillas. You're using these same techniques to help defeat. We, the British, and the other people were the French under Napoleon.

[slide 31] But there's another way I can present that, going back to my previous chart. The top's the same, I didn't change the top part's the same, it looks like it's the same chart, isn't it. But note what I did. What is this: plan with several branches, isn't that a form of variety, rapidity, form of harmony, dispersion/concentration, variety, operating in a direct line, et cetera.

So Napoleon, in the early campaigns, he's supporting these ideas of variety, rapidity with harmony in order to generate ambiguity, deception, rapid/easy movement. And the second part's the one I want to really get your attention on. Exchange variety and harmony for rigid uniformity. He wanted to get these guys into nice neat columns, and all that kind of stuff. What happened? You lose your ability to adapt. You also become what? Predictable. That's my point.

[slide 32] Okay? And here's my point. When we talk about the ideas of Sun Tzu, or any of these other people, they're at home with either regular or guerrilla warfare. Now the reason why I

bring that out, we very often try to draw a big distinction between regular warfare on the one hand and guerrilla warfare on the other hand. I'm going to show that they really, they come together in many different ways, particularly when we come down to the present. So we'll be looking at that, both regular warfare and guerrilla warfare, particularly going to the 20th century, go deeper and deeper into guerrilla warfare along with regular warfare.

So with that in mind, then, what I want to look at now is what I call the three giants of the 19th century. First the super-practitioner, Napoleon, we'll look at him in more detail. Second, the philosopher of war, Clausewitz, and third sometimes called the systemizer, Jomini. Clausewitz primarily was looking at the character and nature of war, Jomini was looking at it from an operational viewpoint. In any case, let's look at all three.

Now the reason why we want to look at all three, why do we want to do that? Anybody think why I want to look at those three guys?

Audience: Synthesize—

Boyd: That's one reason. Another reason, good reason, we want to see what ideas still hold. Remember, we're trying to search for that kind of stuff. What works, what doesn't work, can we use it today, et cetera. That's exactly right. So we're not just taking the whole bag of goods that goddamn, that Clausewitz was a smart son of a bitch, that's going to be the lens through which we're going to look at them all. You got to pull it apart first, so then you can put it back together. Pull Jomini apart, pull Clausewitz apart, Sun Tzu apart, and find those things, those invariants that hang together, we can apply them later.

[45:00] That's part of it. The other part, theme, is because it had such a pervasive influence on modern operations. And people don't even realize it. Some of it good, some not very good. So we're going to pull it apart, find what works, what doesn't work so we can also do that synthesis. Had a very pervasive influence upon the way we look at war. So with that in mind, let's look first at Napoleon, the super-practitioner.

[slide 33] We look at Napoleon, we find out, here was what some people call revolutionary army, gifts to Napoleon. Moral and physical energy of the citizen-soldier, and new leader. Remember, the people are now going to get a piece of the action, so they get this moral *elan*, they really want to go for it. Because they're going to be part of the game now, instead of being held down by the aristocracy and Marie Antoinette, let them eat cake.

Okay, another concept that came up prior to Napoleon: the idea of subdividing the army. What we call today the divisional concept, instead of [unintelligible] which makes it a much more flexible instrument. And of course, if you have that, remember, think of it this way: if you have one rigid body going in, it's very immobile, you got all these thrusts going there, you really start pulling the other guy apart. You get at his flanks and rear, if you really pull, you get at his flanks

and rear. That means you have to be a good commander, but of course Napoleon was that kind of a good commander.

And the idea of living off the countryside, traveling light. In other words, sort of a reaction against 18th century warfare where they had all these supplies, so they live off the countryside, you operate at a much faster pace. Remember that's what the Mongols did, living off the countryside, going 50-60 miles every day. And sometimes you see this in the rapid march, 120 instead of a standard 70 steps per minute. Sounds like a contractor's brochure here.

[unintelligible]

[end of Tape 1, Side 2]

[begin Tape 2, Side 1]

Boyd: [unintelligible] use of line and column: initially, even though they were, in effect they weren't adhered to. Okay, so when you pull all that together, and here's the asymmetry that Napoleon got over his adversaries. Mobility and fluidity of force much better than his adversaries. At least where we're going. And of course we raise the question, how does he exploit this? So let's look into that. Okay. **[slide 34]** So what I'm laying out here in a rather detailed chart are the general features, plan and resolution, security, I'll let you read it. You read the left side, then I'll take you through the right side.

[long pause as audience reads the slide]

Take the top. Note what he's doing here, all different kinds of things he's doing. The idea is, he's trying to find out where his adversaries, by sending spies out, so finding, he's eliminating possibilities. In other words, keep his own plan simple, also reduce his own uncertainty. Okay, note what he's doing here, his idea of security. In other words, just an amorphous kind of a being, guys can't figure out what's going on, whole different ways he doing it. In fact, you can think of the security as being a *cheng* for his vigorous offensive action, being the *chi*.

And note this: strategic dispersion, tactical concentration. You read the literature carefully, it talks about assembling concentration. You really read between the lines, what it is, is sort of strategic dispersion followed by tactical concentration. In other words, you're operating really wide ranges and gradually you come closer and closer, you bring your force together, and with a large force pounce upon a fraction of your adversary, is what he's trying to do. And we'll get into that later on.

And then vigorous offensive action. In other words, way of grabbing the initiative. So these are the kinds of things that he was doing. A strategic theme. Note what he's talking about. Single line of operations. It doesn't mean— unfortunately some people draw the wrong idea. Even though it's a single line of operation, you have people spread out laterally and also [unintelligible] you have multiple thrusts even when they're separated, operating as an organic whole. And also note this: in other words, try to seize that, isolate his forces so he can't be

resupplied. In other words, so we gain leverage on [unintelligible] and note the kind of thing he's talking about here. Once again, you see it's sort of a *cheng/chi* operation. Part of his force in order to tie the guy up, the other part of his force in order to pull him apart.

And his idea of setting up supporting centers of operation or depots or bases. The idea being, rather than being constricted by one line of communication, you want multiple lines of communication, so if we get sawed off from one, we've got other lines of communication in the field. By doing that, they— it frees up his freedom, you've got more freedom of maneuver than his adversary, because his adversary only has one line of communication [unintelligible].

And his aim was quite simple: to destroy an enemy army. In other words, you're not taking out terrain, you want to take out the army. It's a partial truth, didn't get it all right. Remember, down in Spain, he destroyed the regular army but then the guerrillas took his people apart. So it's not the formal forces, it's any resistance force. Not just the formal forces. But he had a partial truth, he just didn't recognize that terrain doesn't fight wars. Okay.

[slide 35] In any case, we'll see some of his examples of his strategies here, strategy of envelopment. Idealized schematic, where you actually tie up a force here, force down the flanks, sneak in the back door, cut him off and then fold back into him and [unintelligible] kinds of pressure, and the other guy's trying to make all the adjustments. We pull him slowly apart, we call it strategy of envelopment. [slide 36] [unintelligible] The strategy of central position, this is one that Jomini liked to talk about. Wherein, what he would do is, the other guy's spread out, you'd wedge in between him, show up in here, then you have a secondary attack. "SA" stands for secondary attack, small force here, main attack, "MA," going against this force here. After you clean these guys up, go back and take out the other force. But there's a hidden assumption there, what is it? Anybody?

Audience: Speed.

Boyd: That's right. You're not going get away with that unless you can operate at a faster tempo than the adversary. You can't play that. So there's a hidden assumption, the idea of speed. And that often isn't brought out. That's exactly right. Okay, with that in mind, let's step down to the tactical level. [slide 37] I'll let you read these, and then I'll talk [unintelligible]. You notice I took quotes here in both cases because they're so nicely written [unintelligible].

[05:00] When I'm talking about earlier tactics, I didn't say it changed all of a sudden. In other words, there was a process [unintelligible] early on these tactics, and later on these tactics, in other words they transpired over a period of time.

[long pause as audience reads slide]

Okay, let's discuss this. Note the underlines here, these two underlines actually capture the whole essence of the thing. Note what he's saying: carry out a general, rather than a regulated mission. If I have a general rather than a regulated, what does that provide me? It allows you to

be adaptable. If you're regulated, you're non-adaptable. With that adaptability then, then you can go after the chink in your foe's armor, in other words strength against weakness. So the idea here is adaptability, strength against weakness. That's the whole message of the whole thing.

Over here, note, heavy bombardment, strength going against strength. Now, everything's carefully timed. What's an example of that people are trying to promulgate today? The Army, everybody's seen the Army Field Manual 100-5? "Synchronization." How in the hell do you synchronize human beings?

Remember, they've got those four things up front: depth, synchronization, agility, and initiative. Agility and initiative are good. Depth, there's nothing wrong with it, except it's in the wrong part of the manual, it should be in the back, getting lower with agility and initiative.

Synchronization's a disaster. You don't synchronize human beings, you synchronize watches. If harmony is higher, then they should use harmony instead of synchronization. Synchronization is part of harmony, but harmony is not necessarily part of synchronization. In other words, harmony is a more general term. It's a mistake. So they still, goddamn it, haven't learned their lesson yet. Then they say, "well, we didn't mean it." I said, "then take it out! Then why is it in there?" Not only that, it doesn't fit with initiative or agility. Initiative and agility are human terms, synchronization's a mechanical term.

Now do machines fight a war, or human beings? Remember, they're putting up front their philosophy. I'll tell them right to their face, it's bullshit. You got to learn how to use that noodle. If they want, they can put something else up here, okay, but you know, it doesn't go alongside. You don't synchronize human beings. That's not saying you shouldn't synchronize watches, I'm not against that. Once in a while, you want a very tight synchronization with the artillery coming in on a time, on target, or something like that, but you don't synchronize human beings. You want to talk about artillery, synchronizing watches or something like that.

If you use the word "harmony," you can use the word "synchronization" later on and guess what, it's in accord with harmony because it's a subset of harmony, but it's not all of harmony. They got to get that through their goddamn heads! Synchronization's a subset of harmony, doesn't mean you shouldn't have it, but it's a subset, it does not go for human beings. Anybody who tells they're going to synchronize me, I get personally irritated.

Okay, so that's the problem, you see, careful timing. Well, Christ, we're in a war of confusion, how are you going to be careful timing, that's bullshit. So there, sort of here's the essential point. I guess they like this part. I guess that's what they read in Napoleon. That's the pervasive part that came down, comes out in synchronization now. I'm sorry [unintelligible] essential point, all I'm doing is I'm just [unintelligible] essential point.

Audience: But also doesn't 100-5 on synchronization— Your point's well taken, I agree with it completely, sir, but synchronization is, they also refer to it as the state of mind of the commander

when he's developing his plan, to consider the application of everything. [10:00] There's one little statement in there—

Boyd: Oh, they're going synchronize everything—

Audience: No, I mean, he's considering things—

Boyd: He's considering— I want him to use harmony, he can put the synchronization down in a subset. You can't know everything of what his troops are going do. Otherwise you're going go against the very— what he's going do is lay down what he wants done. They're going determine how it's going be carried out. He's not going know the infinite details, if he tries to get in there, he's going screw up the operation, period. We've done that over and over again. I guess these generals, I don't know what the hell they're thinking about, because they ran a platoon one time, twenty years earlier, I guess they still want to fight at the platoon level. Did you know Patton criticized his guy? He told a colonel, "goddamn it, I don't want you to interfere with their tactics. You just tell them what they're supposed to do, and they're going do it, and that's your job. Be sure they get the resources," he told his colonels. Quote. He said, "all you're going do is muck it up." He understood that. Can't say he wasn't a successful commander. He says, "all you're going do is muck it up."

Audience: Colonel Boyd, didn't we start doing that though, during the Korean War, with nuclear weapons and communications were better—

Boyd: You're raising a very crucial point. I think what you—You're on to it, I normally bring it out. It's a very good point you're raising there. What's happened, because of the rise of nuclear weapons and communications— Well, of course, we had communications during World War II—

Audience: But they weren't as good as ours today, were they—

Boyd: Communication, radio, I mean they're not as good as today. But of course, twenty years from now they'll be better than we have today, too. But I mean, they're not like World War I or previous communications. But the point I'm trying to bring out with the advent of nuclear weapons and also the communications: boy they didn't want some guy flinging off nuclear weapons, so they had very tight control, because it's an awesome weapon. And they should. But you shouldn't— because you have it at nuclear weapons, you want to have it at all other levels. Once again, that's a rigidity of mind.

Audience: But since the Korean War, take the company commander. His power, or whatever he had, has declined because of those two areas. One time, I think the company commander—

Boyd: You know, if you want to give an order, you can always give an order. What you want to do is, you want to tell somebody what you expect. Let them determine how it's going to be carried out. You should also tell them why you want it done. You know, so they can see that

there's a reason for it, not some goddamn bullshit in itself. And then you should put in, also, let them determine how, what, why, determine how. And then you should put in whatever constraints that you want, because remember, you're probably going deposit this thing in a larger context, and if they start doing anything they want, it can cause you some problems. So you should put constraints. Unfortunately, what we do is make the constraints so goddamn narrow, the guy can only do one thing, so therefore he's got no freedom of action.

Audience: All those things you just said, you know, give the guy an order, let him do it how he wants, that's what we're told in school.

Boyd: That's correct.

Audience: But then we have speakers come in, and—

Boyd: I understand—

Audience: —low intensity conflict for instance—

Boyd: I know exactly what you're telling me. "Oh, we agree with you," and then they tell you, and Christ, you don't have any freedom of action. That's exactly right. In other words, they're telling you one thing, saying one thing but they're doing another. In other words, it's a huge goddamn deception operation. On you! [audience laughter] You're the object of the deception. You don't have to do that.

I'll give you a good example of when I was overseas, of how they wanted me to do it. I was initially—you raise a point, the reason I'm going to bring it out, it's an interesting point that came up—I was sent over to Task Force Alpha. You probably know that was the old sensor program, sometimes called Igloo White or some other names. People didn't like [unintelligible]. In any case, over in southeast Asia.

In any case, one night— eventually they made me base commander. They went through seven base commander in two years. They said, "Boyd, you got to clean it up there." I didn't want the job, hell I don't want this goddamn, but I had to take it over. Well, one night I'd been there for— hell, I didn't even know what my responsibilities were, so—a couple of our electric goons, those spy C-47s crashed, listening and ELINT¹³ gear and all that on there [unintelligible]. Of course, guys are out there in areas where there might be guerrillas and that, those people sent us some choppers.

So the guy says, "you're the commander on the spot." Now I hadn't been there too long. I said "I am?" He says, "yeah, okay let's go down." And he said, "here's your checklist." I goddamn near fell over. I said, "what do you mean, checklist?" I took that goddamn thing and threw it, it went out the window. I said, "now where's a map, let's find out where they are, and let's start making

¹³ Electronic intelligence.

some decisions.” The guy brought the checklist back in, and I threw it back out the goddamn window. Some captain. I said, “you can’t operate this way.” They don’t know, you know, I said, “if I read this, those guys’ will die of starvation out there before we get to them.”

So I said, “now where’s the map?” I said, “get that goddamn thing out. You point where they are.” They said, “We don’t know.” I said, “Who knows?” He said, “we’ll find out. We’re on that.” I said, “fine. What resources do we have available?” I’m going to take the choppers out there, then we found out we don’t have enough choppers, so they had a [unintelligible] They said, “Yeah, but these guys got to go first.” Fuck that, I don’t care. I said, “What is the situation out there?” [15:00] So I reversed the whole order, and sent the choppers out and everything else. And he kept bringing the checklist back. I said, “I don’t give a goddamn to hell you’re [unintelligible] you bring it back in here again.”

He said— you know, as the new guy. I didn’t know what the hell I was doing. I got them all out. Blew up the two goons. You know, we had to blow them up because security [unintelligible] we got them all in there. I didn’t go by any goddamn checklist. I said, you know, what do you have, went down my way, and did things that had to be done.

If I started reading a checklist, hell, [unintelligible]. That’s bullshit. Of course, I’m a fighter pilot, I think that way. It’s just like he’s a fighter pilot back here, every year. I think they maybe still had it when I was there. They had this huge book. You got to sign about all the regulations that you’ve signed it, and so if you violate it, they can hand you your ass.

Well, nobody ever reads the son of a bitch, they just signed it and walk out the door and said “yeah, I read the son of a bitch.” That’s a huge deception. You still sign that bitch, don’t you?

[Cross talking]

Boyd: I bet it’s probably this goddamn thick now.

Audience: They’re a lot thicker now. You don’t sign anymore, sir. They just say you’re responsible for all these regulations, even some that you don’t know of. That’s the new way.

Boyd: Yeah. So everybody walked out. I said, “we’re all a bunch of goddamn liars.” We all go in here, great, sign, walk out the door. It would take thirty seconds. Nobody reads the son of a bitch. And they had this huge book. That was so if you violate something, they could hang your ass and they got your name on it. That’s all it was for.

You really read that thing, you’d be here a week. Like he said, it’s even thicker now because they got more regulations in the meantime. It’s a huge thing. We all used to laugh. I’d say, “we’re all a bunch of goddamn liars.”

You go down there and stand in line [noise representing book pages turning] this huge book. Boy, you really walked up through there fast. It’s a disaster.

Okay. We look at Napoleon. Did I take you through that? Yeah. [unintelligible] I'm getting off track. Okay. Napoleon's Art of War. **[slide 38]** He did exploit ambiguity, deception and mobility, at the strategic level. Look what happened down at the tactical level. Actually a return to the 1791 Drill Manual. He ran a very heavy-handed application, that prescribed the use of line and column. Generally line for attack and column for movement [unintelligible].

Okay. And he emphasized the conduct of war from the top down. He wanted to get strategic success, he wanted to gain grand tactical success, and then tactical success. Strictly a top-down mentality. To support his concept, he set up this highly centralized command and control. Whereas he had a scheme in his mind, his marshals didn't know. Since they didn't know, they had to do what he wanted to do. And they worried about their own troops wouldn't do it. It gets more and more rigid as you go down lower and lower.

So the result is strategic maneuvers, ambiguous and deceiving prior to tactical concentration. After concentration, stereotyped and obvious. And he could not procure the victory because of their obvious, predictable nature. Waterloo's a good example. Christ, he made some mean strategic moves. Then it was "hi diddle diddle, right up the middle." He got taken out.

Not only that, Wellington, as I told you before, said Napoleon came on the same old way and we beat him in the same old way. Napoleon figured out how to take on those line and columns down in Spain. Napoleon used the same technique. He used the same technique against them.

[slide 39] So the Napoleonic Spirit, strategic fog followed by stereotyped and ruinous tactical assault. In other words, the strategic, I want to give him high marks. Lower level, not so good as time went on. We'll get into that later on, why that happened. I'm not going to talk about it right now.

[slide 40] Okay. Now let's go on to the philosopher of war, Clausewitz. He made that famous statement where he talked about the character, act of policy, to use violence to impose one's will upon another. Later on he made the statement, not only war is politics by other means. We've all heard him say war's an instrument of policy.

Anybody see anything wrong with that? The military's an instrument of policy. When you say something's an instrument, what are you really inferring? You've got control over it. In other words, you've got— you know, a tool or an instrument, you've got control of it. But you can't control war. You might be able to control the military as an instrument. Maybe not too much but [unintelligible]. You can never say it's an instrument of policy, an act of policy, already you went too far. It's not an instrument of policy. That presumes you can decide what's going to happen during it. You can't.

Maybe that was our problem. We wanted to make an instrument— we wanted to make the Vietnam War an instrument of policy. I'm sure that the idea wasn't to go in there and get kicked out.

Another statement he made which is good, duel or act of human interaction directed against an animate object that reacts. [20:00] The idea is you're not sure how he's going to react. And since

you're unsure how he's going to react, that builds up the idea of uncertainty among other things, uncertainty of information acts as an impediment to vigorous activity.

Then he brings in very strongly the importance of psychological and moral forces and effects, since we're talking about animate objects. Danger being one of them. Intelligence. Here he's talking about not an intelligence service but mental intelligence and emotional factors. Emotional factors, courage, confidence. Fear, anxiety, alienation, being the negative ones. Courage, confidence, and esprit being the positive ones. They can go either way, either impede or stimulate, in fact, depending upon the circumstances.

And then he does a very interesting thing. He takes all the interaction of all these things and lumps them under the notion of friction. The interaction of many of these factors, including all those above. And because that's all very complex, that tends to, what, impede activity. Overall, it impedes activity.

Anybody remember his famous statement? "Friction is the only concept"—I'm quoting him now—"is the only concept that more or less corresponds with those factors that distinguish real war from war on paper."

The point is, if you haven't accounted for friction, you're not talking about real war. And he's quite right, if you think about it. Because the way he looks at friction, you read it very carefully. He treats it almost the same way we treat the modern—the way we look at the second law of thermodynamics. Entropy. We talk about all natural processes generate entropy in the second law. He doesn't treat it in a physics sense.

The way he's looking at friction is the way we almost look at the way we use entropy today in the second law. So in a sense, his ideas were a precursor to the second law. And that's laced throughout his book. And the fact that a commander has to overcome that friction. In fact, in a dialectic sense, he used genius as the opposite of friction to overcome that friction. The idea that genius at war, harmonious balance of mind and temperament that permit one to overcome that friction. And excel at that complex activity.

While they can't change the character and nature of war, they can change the nature and magnify the scope of operations. And then strategy, his strategy, exhaust them to influence and increase the expenditure of effort, he brings it up over and over again.

And then, seek out those centers of gravity upon which all power and movement depend and if possible trace them back to a single one. Look at all those powers and see if you can ideally take it back to one. Then he squeezed it one more time. He said in that effort, compress all effort against those centers into the fewest possible actions. Still not satisfied, he gives it another squeeze. He says, subordinate all minor and secondary actions as much as possible in all this activity.

So by doing all these things, in a sense he's in harmony with his idea of friction. What he's trying to do is overcome his own internal friction. See what I'm saying? So he can deal with that.

And move with the utmost speed. We already talked about that. And seek out the major battles that will promise decisive victory.

His aim is quite simple, render your enemy powerless, with emphasis on the destruction of his armed force. Not only the armed force, but that was his emphasis. He also talked about capturing a city or taking a province or something like that, also to try to destroy your enemy's will. But he says, this precedes or dominates the others. That's how you prevail, destruction of his armed forces.

Okay. Let's critique Clausewitz. **[slide 41]** Clausewitz overemphasized the decisive battle and underemphasized strategic maneuver. And the reason why is he came up with strategic maneuver only through 18th century on. In other words, he was reacting against that kind of war and overplayed [unintelligible].

Also, he emphasized method and routine at the tactical level. Why did he do it? His own words, to reduce his own internal friction. Is there anything wrong with that? He wasn't looking outward. He was always looking at things in an absolute sense.

Clausewitz is concerned with trying to overcome or reduce friction and uncertainty. He failed to address if you want to try to magnify adversary's friction and uncertainty. The point is, if you have routine in your own services and become predictable, you've also lowered your adversary's friction relative to you. You've got to think of it both ways.

Not only that, I had earlier on there, move with the utmost speed. Well, what good does that do you, the utmost speed? Why do you want to move with the utmost speed? I'm talking about [unintelligible]. Just to get there first? He should've said he wanted to move faster than the adversary. What's utmost? The other guy's moving with utmost, he might be faster than you. So he's looking at things in an absolute sense. Remember, he looked at the absolute nature of war and then the reality. He didn't look at it in terms of a relational thing. [25:00] He was concerned with trying to exhaust his adversary by causing him to increase his expenditure of effort.

Why not turn the argument around? Why not develop the idea of trying to paralyze your adversary by denying him even the opportunity to expend any effort? Not that the first is wrong, but he's not looking at it broadly enough.

And he incorrectly stated, "a center of gravity," quoting him, "is always found where the mass is concentrated most densely." That's not always true. In a donut, the center of gravity, well, there is no mass. In a hollow steel ball, it's where the steel isn't. In a dumbbell, it's in the connection between the mass. You can come up with counterexample after counterexample. It's not correct.

And then argued this is the place where the blow must be aimed, the decision should be reached. And then he talked about centers of gravity, the army, the capital, and public opinion. Followed up the army and capital, didn't really follow up the public opinion. If you aim at the public opinion, here's what happens then. You fail to develop the idea of generating many non-cooperative centers by striking at those tendons, connections that permit a larger— that says longer, but it should be larger center of gravity exists.

In other words, you want to generate many non-cooperative centers of gravity so the guy can't function as an organic whole. What kind of people do that to us today? What about the guerrillas? Didn't they do that to the US? We had many non-cooperative centers of gravity in this country. As a result, what happened? We had to come home.

And I might add that, everybody said, hell, we won all the battles. No, we didn't win all the battles. I don't care if they said so. I know one battle we didn't win. What battle was that? They say we won all the battles, I said no. If you're going to use battle as a measure of merit, you better be sure that it's not a narrow lens. It's got to be as broad as possible lens, if you use that as a measure of merit for success. We lost the battle in the home front. When I bring that up, they only think of the physical battle.

If you're talking about battles, you've got to talk about the moral, the mental, and the physical. They were thinking body count, attrition. That's what they were thinking. I know exactly what they were thinking.

In fact, Harry Summers said we won all the battles.¹⁴ I said, "bullshit, Harry. We didn't win all the battles." He says, "well, I know we did. I did all the investigations." Bullshit. You didn't. I know you didn't. And I didn't do all your investigation. Did you win the battle on the home front? Of course he'd never lie and he said no. I said okay. There was the most important battle. It cost us the war.

And what dimension was that played in? Physical? No. In the moral dimension, which bears to what Napoleon said. The moral is the physical as three is to one. If you get a chance to hear my strategy, I go into that deeper. [unintelligible]

Audience: [unintelligible] the same point in [unintelligible].

Boyd: Say again. [unintelligible]

Audience: You said what Napoleon said and what you just said—

Boyd: Yeah.

Audience: —moral is to the physical as three is to one. I'm just trying to relate—

Boyd: You see, I'm looking at that pyramid from another angle, is all I'm saying. That's what I'm trying to bring out. We didn't win. We didn't win all the battles. We lost the moral battle. But see, the guys only want to define the physical sense. Nah, it's too weak. That's not true.

But see, attrition warfare is easy. Christ, you just go out there and just slug off artillery and machine gun rounds and all that bullshit. You don't even have to think. Just pound away.

¹⁴ Boyd is likely referring to Harry G. Summers, who served in the United States Army during both the Korean and Vietnam wars. Summers wrote an analysis of American operations in Vietnam through a Clausewitzian framework, entitled *On Strategy: A Critical Analysis of the Vietnam War*, 2nd ed. (New York, NY: Presidio Press, 1995).

When you lead troops, your first concern, your first duty is to your troops. You don't want to goddamn run up a goddamn hill and clean out your company and say well, shit, we tried, when you could've come in the back door.

That's what I told you Patton said, hold them by the nose and kick them in the ass. That's what he's talking about. You get them to concentrate one way and you kick the shit out of them in a different direction. Then we ain't [unintelligible].

In fact, you've got a good statement in your new warfighting manual.¹⁵ That thing by Slim is beautiful. Your warfighting book that does— in your conduct of war. Remember that little quote by Slim at the end?¹⁶ He said, bullshit on the principles of war. Here's all you've got to remember. It's a beautiful statement. He had it exactly right. He was a smart guy too. He's in the wrong theater so he didn't get much credit.

Okay. So what does all this mean? So to attack this, let's go in reverse order. Let's assume we can generate many non-cooperative center of gravity. If we can do that, what do we do? We deny the opportunity to generate— we impede vigorous activity. If we impede vigorous activity, what does that mean? We maximize friction and uncertainty. That's exactly right.

So very often when you turn the argument around, you see what's going to happen. Because it can't function as an organic whole. And so there's the message then. [slide 42]

Did not see that many non-cooperative conflicting centers of gravity paralyze adversary by denying him the opportunity to operate in a directed fashion, hence impede vigorous activity and magnify friction. [30:00] That's the game the guerrillas play to the hilt.

Audience: Does that mean divide and conquer?

Boyd: Yes, same thing. But there's many divisions, you know what I mean, multiple. That's exactly right. It's just another way to divide and conquer. But not just in a physical sense, what, in a moral sense, in a mental sense. You understand what I'm saying?

They think of divide and conquer as split this force off. I'm talking about a moral and mental sense as well. And so since he did not see it, the likely result's not too surprising, ergo World War I.

Now let's look at Jomini— [slide 43]

¹⁵ FMFM-1 *Warfighting* (Washington, DC: Department of the Navy, 1989).

¹⁶ Boyd is referring to the following quote by Sir William Slim from FMFM-1: "Many years ago, as a cadet hoping some day to be an officer, I was poring over the 'Principles of War,' listed in the old Field Service Regulations, when the Sergeant-Major came up to me. He surveyed me with kindly amusement. 'Don't bother your head about all them things, me lad,' he said. 'There's only one principle of war and that's this. Hit the other fellow, as quick as you can, and as hard as you can, where it hurts him most, when he ain't lookin'!'" (see *Warfighting*, 55).

Audience: Can we go back a second? I'm puzzled on how we, the friendly side, create the many centers of gravity simply by aiming at the decisive points with the one center of gravity and [unintelligible].

Boyd: Well, you want to know your adversary, first of all, you got to go back to understanding your adversary. What are those things that you can concentrate on that's going— you can divide him up so he can't function as a whole, not just physically but morally and mentally as well?

Wyly: So would your multiple thrusts be one example?

Boyd: Multiple thrusts, that's— that's one example. You know, we talked about that earlier. Yeah, that's, a lot of it's a physical sense, but it's done physically on the other— well, you think multiple thrusts as— you can have multiple thrusts moral, mental, and physical too.

If you think of the battlefield, you tend to think of the physical. But you'll also get moral and mental implications that flow out of that, even though it's physical.

Audience: Is there such a thing as a center of gravity?

Boyd: Oh, that's a good question. It's hard. You're talking about center of gravity. See, I think— you've heard people say— you've got a good question, colonel, because I don't like the term, personally. And the reason why, people say we're going to go after our adversary's strategic center of gravity. I say, what the hell is that? We didn't know our adversary. We didn't know ourselves where we could find our strategic center of gravity. I find that a very interesting phrase.

And they say, they went after ours. I say, that's not quite true. I say I agree that as a result the American society became divided, and that turned out to be our strategic center of gravity. But they didn't know that ahead of time. They found out about it after the fact, and they levered it. They didn't start out that way.

I'm talking about Giap and his boys during Vietnam.

Audience: So John Schmitt's warfighting manual, when he talks about vulnerabilities, we're onto something better than the center of gravity.

Boyd: Yes, in fact I think that's a much better term.

Audience: But also we don't—

[Cross talking]

Boyd: Remember, as a matter of fact, Sun Tzu said it. Remember what he said? In fact, I got it in my— what manual do I have? This one [unintelligible] don't know where I put the son of a gun. It's in my strategy kit.

Remember what he said, seize that which is the vulnerability, seize that which your adversary holds dear or values most highly. Then he will conform to your desires. That's a vulnerability. He said that, Sun Tzu back 400, 500. Seize that which your adversary holds dear and values most highly. Then he will conform to your desires.

Audience: John qualifies that by saying "critical," for example, his PX may be vulnerable, but it's sure as hell not critical.

Boyd: That's right.

Audience: So you've got to look to what's vulnerable and to what's critical.

Boyd: That's right. But no, no, Sun Tzu said it. Seize that which your adversary holds dear or values most highly. That is critical.

Audience: But what if it's not vulnerable?

Boyd: Well, it may not be. But I'm talking about— but he's always talking about strength against weakness. He doesn't say directly try to do that.

Wyly: You're kind of feeling your way as—

Boyd: He's feeling your way. See, he recognizes it.

Wyly: In fact, every vulnerability, essentially you get onto something.

Boyd: And you may not know that at the time, exactly what that is.

[Cross talking]

Boyd: Let's say you're going to penetrate a front— you want to go after your adversary's weakness, strength against weakness. You may not know that exactly. One way of finding out, though, is multiple thrusts. Because some are going to get hung up. Some will leak through. The ones that are leaking through, you know they're doing it. So then you can shift your *schwerpunkt* and ram it home through those.

In other words, you're adapting to circumstances. You see what I'm getting at?

Audience: I'm trying to put it all—

[Cross talking]

Boyd: You see what I'm saying? In other words, you're— you say okay, they've outsmarted me here. But in the meantime, you ram some of them in there, see. And some are leaking through. The other ones are being hung up.

Okay. The ones that are hung up, you don't reinforce those. They just have to sort of hold the position and keep the other guy tied up and reinforce or re-support those guys that are going through and ram that home real deep into the guy.

Audience: I'm not getting the connection between the successful thrusts and the vulnerability.

Boyd: I know what you're saying. You have a— let's differentiate between weakness and vulnerability. A weakness may not be real. A guy not be vulnerable because he's weak. And that's what you're talking about.

Audience: Yeah, because you're going through there—

[Cross talking]

Boyd: You may find a weakness and go through, but he may not be too vulnerable necessarily. But also because you've got the weakness— because you act, then you can exploit that weakness. Then you can direct that out of that weakness and effort into his vulnerability.

Audience: [35:00] Okay, now the sixty-four dollar question—

Boyd: If you go after something that's vulnerable, a critical vulnerability, he probably knows it is too. So therefore, he's going to put a lot of forces there. Now you've got strength going against strength. In other words, you've got Verdun and all those battles [unintelligible]. Do you understand what I'm saying? So it's sometimes better to exploit the weakness. As a result, you can get to the vulnerability.

Did you ever read Manstein's thing on lost victories? Remember, he's always talking about unhinging the front. You'll never be vulnerable. What he's trying to do is find a weakness and then start getting behind him. They're going to abandon these areas where they're vulnerable. So he gets at the vulnerability by getting to that weakness first.

Audience: We need to go through the intellectual exercise before the battle to think that through.

[Cross talking]

Boyd: Well, I think what you do, I mean, you don't want to recipe it. I wouldn't want to recipe it. What you want to do is you want to lay out the philosophy so your guys think this way, see. Because let's say he's a commander, and you give him a task to do something out in front. And he has to decide how to do it.

He may not know exactly where the guy— he may have sort of a feel and some *fingerspitzengefühl* on where they're weak. In the meantime, he can allocate his forces and go through, and then he says okay, these guys are succeeding, so I'm going to support that. You other guys hang on. Keep the other guy there and let's ram home. Now I'm going to take advantage of that weakness, see.

Audience: If we try to time—

Boyd: In other words, it's an opportunistic kind of thing. You see what I'm saying? You're taking advantage of the situation as it unfolds.

Audience: As it unfolds. But I think what we teach is we teach identify the critical vulnerability, have the focus of effort towards it, and let your commander's intent spell that out. But that's kind of a neat prescription.

Boyd: That may cause you some problems, is what I'm saying. You may be allocating strength against strength. Do you understand what I'm saying? Because if you see it as a critical vulnerability, he probably does too. So he's going to defend that son of a bitch.

Audience: We have to do something initially to try to draw him away from that.

Boyd: That's okay. But what you're doing, you've got to set up some kind of operation to exploit some weakness, which may not be critical. Then if you can get him to goddamn allocate toward that weakness and expose that vulnerability, there's nothing wrong in that. But you've got to get the exposure first, otherwise you can't get to it.

Audience: Yeah, I can follow that, but how does a commander's intent, which is another tool we talked about that we need—

Boyd: What do you mean by intent? Let's ask first, what do you mean by intent? Let's separate— we've got some confusion on this word. I'm going to give you three words so we can sort it out.

First of all, you give your guys a mission, what is to be done, right? What's the difference between mission and intent? Anybody? We've got to distinguish between them, otherwise they don't know what we're talking about.

Audience: The mission being more specific? The who, what, where, and when somebody's going to do something—

Boyd: Well, the mission generally is— you think of it as sort of a lower-level effort relative to the intent. The mission is what has to be done. The intent is the reason behind it and usually encompasses a larger effort. So in that sense you're correct.

Okay, but then you've got mission. You've got the intent. And behind that it's more, a little bit more insidious, you've got motive. Mission first, more specific as you like to say. Then the intent. Then the motive. So the mission is what you want done to these guys. The intent is the higher level intent behind it. And there also may be a political motive even behind that intent.

So you might say, okay, we want to direct this thrust in an initial operation out here, but our intent is to do this. Okay. You've got to lay something out ahead of time, but as it begins to unfold, you might want to change that intent too. As it unfolds a different way, say hey, I can

gain leverage by this. Then you shift the *schwerpunkt*, you shift your intent, and tell your people why.

Don't get too hung up in all these things, too much in these words. You want to give yourself fluidity. I look at the intent as the "why" behind a mission. The mission is the "what." The intent is the "why."

Audience: I'm thinking two things. One is—

Boyd: Or as he says— think of this, though, think of— you give a task to some company, see. Then you want to know, let's say, the regimental intent behind it. In other words, he's thinking a broader level, but they have more specific missions.

So a mission's related to an intent, but intent— like he said, more specific or lower-level relative to the intent. In other words, the intent's more general. That's why I think it's the "why."

That's why I say think of the mission as the "what," the intent as the "why," why you're going to do that. That's why— see in other words, you're folding it into a larger— intent is a larger mission if you want to think of it that way. Or the mission is the smaller intent.

Audience: Initial discussion, getting back to vulnerability—

Boyd: Did I make sense out of that to anybody? Everybody?

[Cross talking]

Audience: [40:00] I think I [unintelligible] vulnerability, you're equating that with the enemy's critical point or center of gravity, I think as we've been referring to. We're saying direct our strength against an enemy weakness, with the overall objective of that thrust being his center of gravity or—

[Cross talking]

Boyd: Nothing wrong if you want to get the vulnerability. But remember—

[Cross talking]

Audience: —that's where the disconnect—

Boyd: You've got to get that exposed first. All I said is you want to get that exposed. If you don't expose that first critical vulnerability, he knows it's there. You're going to get strength going against strength, and that's the only argument I gave you.

See often, we think direct. There's his vulnerability, we're going to tear right through it, Christ, you lose a whole division. So you say, well, why do we have to go right after it? Couldn't we

hold him by the nose, come into the back door and do it? That's what Patton said, hold him by the nose and kick him in the ass.

[Cross talking]

Boyd: That's another way of, you know, what he's doing.

Audience: I think initially that's some of the confusion on the definition of vulnerability and weakness [unintelligible]. Initially, when we started talking about—

[Cross talking]

Boyd: Well, a guy can be weak in an area, but he may not be vulnerable.

Audience: That's right.

Boyd: We know that. People use the word. And so that's a fair question. He can be weak but not vulnerable. On the other hand, if it's a critical vulnerability and he knows that, he's going to put his forces there. And if you try to make a direct effort against it, you're going to lose a lot of your people, and may not make the vulnerability.

So in some sense, what you've got to do is get him to expose that vulnerability by exploiting his weaknesses, whatever they are, or creating weaknesses, whatever they are. Does that make sense? We seem to be still hung up on that.

Audience: I have no problem with the intent being a wider relation to a task. When you're looking at a force, he's going to assign his subordinate units tasks. Now, when we talk about this thing called a commander's intent, somewhat—

Boyd: What he wants to achieve, the commander.

Audience: Right. And—

Boyd: That's a higher-level achievement.

Audience: Well, no. That mission that he's been assigned with a purpose or the "why," an intent, from the higher headquarters, he's going to translate that to his subordinates in numerous tasks. But this intent now, the commander's intent, not as it relates to the tasks, the glue and hopefully the way he envisions this operation, this thrust unfolding in general terms, general, broad.

Boyd: See, then you're going to choreograph— I'm thinking you're choreographing, and I get nervous when you say it that way.

Audience: Colonel Boyd—

Boyd: I get nervous when you say— I don't know why, I feel very uncomfortable with that.

[Cross talking]

Boyd: Maybe I'm [unintelligible].

Audience: What you were saying could be solved. When you receive a mission with a purpose or an intent from a higher headquarters, that's your mission. Now you have to go ahead and put up a plan, okay, which is going to have to include—

Boyd: Oh, I see what you're saying.

Audience: —tasks for your subordinate units. So now, how do we— between that mission and intent from a higher headquarters and then—

[Cross talking]

Boyd: Let me ask you something. I'm getting a little confused here. Are you separating tasks from mission?

[Cross talking]

Boyd: We've got a problem here.

Audience: Let's say the division's mission is to seize the airfield. The intent, the reason we're going to seize it, is to permit the introduction of follow-on forces. So if we want that airfield so—

Boyd: Nothing wrong in that.

Audience: Okay. Now as a division commander, I'm going to have to tell—

Boyd: Why do you want to prevent that? Because you're trying— you don't want those forces there because you're trying to conduct other operations.

[Cross talking]

Boyd: I understand. Whatever it is. That's fine.

Audience: So we want that airfield intact so we can bring the C-140 [unintelligible].

Boyd: Right. Right. Got it.

Audience: Okay. But now as a division commander, I'm going to have to give tasks. As I envision I'm going to do that, I have a concept of how I'm going to do it. I'm going to give tasks—

Boyd: Or missions. Subordinate missions.

[Cross talking]

Boyd: That's why— yeah, you had me confused. You're talking about subordinate missions.

Audience: Subordinate missions.

Audience: Yeah, subordinate missions. Okay.

Boyd: See, I'd rather call that— see, when you say tasks, okay, as long as you think of a subordinate mission, I have no problem with it.

[Cross talking]

Boyd: Okay. We're saying the same thing.

[Cross talking]

Audience: —a task from a higher headquarters translates to my mission—

Boyd: No problem.

Audience: —as a subordinate.

Boyd: So the tasks are just subordinate missions.

Audience: For example, I've identified a large force to the southeast of this airfield, and I say to the 8th Marines, occupy positions to the southeast of the airfield in order to keep the enemy from interfering with our operation. So I want him to go where he needs to, southeast of here, to keep the enemy from interfering.

Boyd: Okay, but I'm a little confused now. Are there any troops in that area? You say occupy—you're going to take out the troops first, or you're going to occupy the position? I mean, you're saying seize the airfield.

Audience: I'm just trying to do this conception that I said from the division.

[Cross talking]

Audience: You've got to seize this airfield in order to permit the introduction of follow-on forces.

Boyd: I hear you. I've got that.

Audience: Now as a division commander, as I look at it, I've identified the major enemy here to the south. And I say those guys—

Boyd: Can I raise a question at this point?

Audience: Sure.

Boyd: What about around the airfield? Are there any enemies there, or is it vacant?

Audience: No.

[Cross talking]

Boyd: This is a very important question to me.

[Cross talking]

Boyd: Are there any enemies there or is it just a void, it's vacant? Nobody there?

Audience: It's being protected.

Boyd: Well, then, see, now I have a problem then. See, that's why I asked that question. In order to occupy this position, you've got to take out the force first. Why don't we get rid of those, then we can occupy the position. So you're going after the terrain. I want to get rid of the force. You say there's a for— I said, is there any people there?

Audience: Yeah. I guess what I'm trying to illustrate is each one of those regiments has got to have—

Boyd: [45:00] See, because if you take out those people, you're going to own the airfield. Then you can say okay, set your perimeter up, whatever you want. But I have to go first things first. Not occupy— I want to get those people out of there so I can own that airport.

Audience: He didn't say occupy terrain or anything like that, sir, you said do something—

Boyd: You said occupy position. I just—

[Cross talking]

Audience: —identified enemy force that was threatening the airfield.

Boyd: No, I understand. There's an enemy force out here that can bother you. I said, are there any enemies at the immediate position at the airfield? I asked that question. The answer was yes. Well, I want to take those out, so then I can occupy those positions after I take those out, so I can hold off the enemy force. But I'm trying to go first things first, is all I'm saying.

Audience: Yeah, I'm with you. So I'm going to have to give—

Boyd: That's why I asked that question.

Audience: —one or two of my regiments—

Boyd: See, that's why I asked if it was vacant. If there was nobody there, I'd say fuck it. Take the positions. I have no problem with that, see.

Audience: But then you're going to— you may have to be fighting inside out, okay? You may not be able to hold that then. That's why it's so hard to discuss, because it's so situational.

Boyd: But let me tell you why I raise that question as so important. Patton said it very well. Trouble is, when you get fixed on something, guys want to go. They want to fight someone. They dig in to fight. Hell, you don't want to dig in and fight. Take them out so you can hold the position first. In other words, you get things twisted about, you get yourself all hung up.

And that happened in Grenada. And Patton told his people, I don't want to hear anybody telling me they're trying to hold ground. He said let the other son of a bitch worry about holding ground. Take them out. He said it over and over again.

And so that's why I asked whether there was any people. If there were no people, I'd say fine, we have no problem. Just take it. I mean, we're talking about resisting. When I say people, you know people are going to resist the attack, of course.

So I think we have to think that through, because if you don't do it right, your people—

[46:53]

[End of Tape 2, Side 1]

[Begin Tape 2, side 2]

Boyd: —concept, and then you've got to get them hands on, get them out in the field to practice those concepts. Not only that, be fair to yourself. Remember, because you laid out a concept, doesn't mean you have it all right the first time. You may think it through. So, if you see things happen, you say okay, now we've got to take the practice and go back to concept and revise the concept. You go back and forth until it works after you do a number of cases. So then they get that— Now they're getting to *fingerspitzengefühl* the Germans talk about, because they're getting the practice.

Audience: That I can grasp. I think what we tend to do in the military is, we want— once we understand the concept, we want some sort of a tool, prescriptive tool to make it work, and that's when you begin to get in trouble.

Boyd: That's right. And what I'm saying is when you have a concept, let the guys try it under different circumstances out there, and don't let the officers or the leaders interfere too much. Just give them the task and let the other guy do it. If he's going to screw it up, let him screw it up so

you can learn what the screw-up is, and then have your critique afterward. That's how you learn. Instead, everybody sets it up so nobody screws up. Fuck them. I want to see a lot of screw-ups.

Audience: It's got to be force-on-force.

Boyd: That's right. You want to see a lot of screw-ups, because you're not sure what are going to be screw-ups and what aren't, because all you've got is a concept. It might turn out some are good, some are bad. That's part of the thing. So that's how you get that *fingerspitzengefühl*.

Audience: So stay away from the prescription?

Boyd: I would.

Audience: And academia, we can only go so far, sir. You've got to get out there—

Boyd: Let me give you a good example in air-to-air combat. Here's a fighter pilot back there, okay. We go through a long ritual which we started at Nellis many years ago. Before then they had a favorite maneuver. We taught them all these fundamental maneuvers: high speed yo-yos, low speed yo-yos, barrel roll attacks, diving spirals—what do you call it? Pirouettes. Christ, I can't even remember them all, and I was so deeply involved in them. And a guy's trying—I said, "Don't try to remember that stuff, for Christ's sakes. Don't even think of it." When you try to remember it, you know it's like, "Am I going to steer the wheel this much in a car?" Do you know how far you're going to turn the wheel? You don't even think about it. Or how far you're going to push the accelerator down or how far you're—? I said, "What you have to do is, we're going to go out there and we're going to teach you that so after a while it becomes part of your *fingerspitzengefühl*."

We teach them maneuvers, what you do and why you do it. Then we take them out and work it over again and again and again. Pretty soon, he doesn't even have to think about it. So, you don't have to worry about the goddamn manual. You just do it. That's why I'm saying if you teach the concept and you don't give them the hands on, they're never going to get the *fingerspitzengefühl*. So even though we didn't know the term at the time, what we were teaching the fighter pilots was *fingerspitzengefühl*. So they could do those things. They could do the chops, the counter-chops, the maneuvers, the counter-maneuvers, the yo-yos when they had to, the low speed, the high speed, the scissors, the vertical rolling scissors, et cetera. You know what I'm talking about. You've been through it all. They've got to have those fundamentals. If they don't have it, they're going to be dog meat for everybody else. A guy's going to go, "What should I do?" [smacking sound] He's out. So it's got to be right there. He can't think about what page number is that on, what manual or so and so, and get the checklist out. That's bullshit. He either has it now or he doesn't have it, period. So you've got to get him out there again and again, and give him that practice. Pretty soon they get—I'll tell you, these guys get good. They're not even sure how they get good but they get good.

Audience: I think our dilemma is within the school environment we're limited in the way we can accomplish that: war games, map exercises—

Boyd: I understand that.

Audience: And that actual, for the hands-on has got to take place somewhere—

Boyd: Yeah, but when you get out to your unit, you should do that all the time. When you get out to your units—I mean I agree. You’re going through a school. You don’t have the—We didn’t have the time to teach them all that in Fighter Weapons School at Nellis. We gave it to them, we sent them back to the unit, and tell them keep cycling through again and again. We’ll get guys out there, and so pretty soon they start getting what we now call *fingerspitzengefühl*. That’s what you want to have your officers and your men to get. So when they get out there they’ve just got that goddamn—boom [smacking sound] they can take those son-of-a-bitches out.

But if you’re just treating a concept like here on a chart? Bullshit. Burn the goddamn thing. You’ve got to practice, and you’ve got to do—Not only that. Do it every different way you can think of. And you should not grade a guy because he does it a different way. Say, “Bullshit. That wasn’t the school solution. F. You’re out.” I don’t care what’s different. If you realize his tactic works out good, say, “Hey that’s good. I wonder why that worked.” If he can explain it, fine. That’s another option. You want to keep widening that repertoire. You want to make that repertoire as wide as possible, because you become more unpredictable. The wider your repertoire, that means you’ve got a wide angle lens and the other guy’s got the narrow angle lens. You’ve got the wide band. He’s looking at things through the narrow band. You’ve got the wide band filter. You want him to have the narrow band filter.

Audience: One of the things that you hit on, and that here at the school in answer to the colonel’s question is, is it training as repetition, and the more that you do something and the more that you’re exposed to something, whether it’s a map exercise where you’re going to have to make a decision and you have to have input in. You have experience; therefore, you’re going to generate output. So in the academic environment, the more that you can exposure yourself to that kind of rapidity, and quickness, and speed of effort—

Boyd: But remember, you’ve got to be very careful—

Audience: —you’re better off than you are otherwise.

Boyd: No, you’re very good, except for one thing you’ve got to keep in mind, which I— I have another part in another one of my lectures. [05:00] Whenever you do that, you always want to do it so they have a variety of different circumstances when you’re doing it. If you don’t do that, then pretty soon you’re choreographing things. You have a narrow repertoire, and you’re going to get cleaned out when you’re thrown in another environment. There’s a very big danger of people like to look good, so they have this narrow repertoire. You want to throw different things at them, as many as you can, so they’re developing a rep— I mean a *fingerspitzengefühl* across a wide spectrum. Really, I can’t overemphasize that. This is crucial, because this is what makes you adaptable and unpredictable. Remember, I keep using those words. Those are two key words, be adaptable and unpredictable. And then you’ll gain leverage. Because the moment you start becoming rigid or non-adaptable and predictable, you know the game’s over. The game’s

over. And that's the danger of doing it with very narrow repertoire, because you want to look good and the commander to be all— Practices is goddamned thrilled. Well, you choreographed it.

Audience: Let me come from the top of an academic department. Concepts—

Boyd: Well, you can't do an academic but you can give them at least the basic stuff so they can go out and do it themselves. We should be looking at doing this—You see what I'm saying?

Audience: I think we probably give it to them in the sense in terms of map drills.

Boyd: Fair enough.

Audience: With the concept of some very, very general tools.

Boyd: That's right.

Audience: Academic exercise.

Boyd: That's right. And map drills are good, but then you want to set up the map drills many different ways, too. Then in the end, they've still got to connect it up with the actual operation when they get out in their own unit. That's what I'm trying to say. So they can actually develop that *fingerspitzengefühl*. I can't overemphasize that. Let the other guy not have the *fingerspitzengefühl*. That feels good. You're cleaning his clock and he can't even figure out why. Maybe you can't either but you know you're doing it.

Audience: You're saying— what you mean, Colonel, you're going to expose us.

Boyd: That's right.

Audience: You're giving us exposure. You're not going to teach us; you're going to expose us to why.

[Cross talk]

Audience: Educate.

Audience: We made a mistake because we spent a hell of a lot of time on staff planning. If we loosen up the staff planning some and do more—add some more exercises.

Audience: Well you know, we've only done staff planning once and that's at the first part of the year.

Audience: I think instead of throwing so many different models at you, we throw you one simple model.

Audience: Yes, sir.

Audience: You get through three or four different models.

Audience: One thing I think, I think Command and Staff College, you're exposed to an awful lot of material. I don't think we were taught very much. I just think we had the exposure, we had the references to go to. The other thing I think, I think training—military training and military education are two different things.

Audience: Oh yeah.

Audience: They're not one and the same. Then I think the problem with having hands-on time is time itself.

Boyd: Heck yeah. That's how you get the feel. You've got to get— Because then, what you're doing is you're taking your concepts, your ideas and your training and you're putting it all together to get that *fingerspitzengefühl*. That's what you want to get.

Audience: But the time— we fight time. Time is our enemy.

Boyd: I understand that. He can't do everything, but at least he can expose you to these things in the end when you go on the field. We couldn't do everything at the Fighter Weapons School, but we gave them exposure, said now you guys have got to practice yourselves. We can't do that for you. We can only give you so many different combinations.

Audience: We only give the concept. Then all he does is go—

Boyd: That's right.

Audience: Someone says, "Hey, show us how to do it."

Boyd: You can't give a prescription.

Audience: You've got to get the foot in the door of how to do it—

Boyd: You can't give him a prescription to do that. Then it's a choreographed dance. You really can't do that. I mean, I don't think so. Maybe I'm wrong. I just don't know honestly how that works.

[Cross talk]

Audience: I don't think anybody disagrees.

Audience: The question that always needs to be answered, or at least discussed somewhere along the line, which is: who is ultimately responsible for the success of any operation? You have to work that out once you come to that.

Boyd: Well, the commander has to take the responsibility. In the end, it's his responsibility. In the end, it's the commander's responsibility. It's his responsibility. He can't throw that off. I don't think he can throw that off. If one of the lower guys screws up, well, they work for you.

Audience: By responsibility in this case, I meant the execution—who actually executes it and is responsible.

Boyd: Whoever executes it—whoever does the “how,” but the higher level guy still has some responsibility, in a sense, because he laid out the mission.

Audience: As an organization, we push that responsibility down to the bottom, lowest man. The philosophy is—

Boyd: Oh, I see what you're getting at. Okay. No, that's good.

Audience: If we keep the responsibility defined.

Boyd: That's not what I meant.

Audience: [10:00] The men below— wherever we draw that line of responsibility, at whatever rank, the level below that ceases to operate—

Boyd: No, you've got a good point. I agree with that. I'm just saying at the end, the commander can't absolve himself of responsibility. What you want to do is make the people down below more and more responsible, and that has to be done. It's very important. In other words, they've got to feel like they're part of the thinking process, the action of that too, and that's exactly what you're suggesting and I agree.

Audience: To make them responsible, you have to hold them accountable.

Boyd: Hold them accountable. That's right. You've got to hold them accountable.

Audience: [unintelligible]

[Cross talk]

Boyd: Yeah. I didn't see what he was getting at. I see what you're getting at.

Audience: It's a dangerous— It's a tricky thing.

Boyd: What do you want? Do you want a bunch of goddamn automatons working for you down here? It doesn't work. A bunch of automatons is bullshit. That's what you're saying. That doesn't work. You can't do it. I mean, you might think you can but it's not going to work. You know, I'm just taking the opposite extreme.

Audience: I continually relate this to the athletic field of endeavors, and my limited successes on those fields. As I look back in retrospect, I wasn't thinking. Once I started thinking, I started reacting to the situation and it became a reactive role. That goes back to the field. That's hard to acquire, though.

Boyd: Oh, oh, I didn't say it was easy. No way. That's right, it takes time. But that's why you want a variety, do it different, and do it different ways. So in the end, you know you're doing something that just feels right. And it's because you've accumulated all this experience, you say, "this is right." You don't even know why. You're making all these connections in your brain many different ways. Not only if it doesn't work out right—Even if it didn't work out, you've got about five or six options. You start shifting gears. Fighter pilots do that naturally. Boy, they start shifting gears real quick if they're any good. They really do. They're pretty good at it.

Audience: They are maneuvering one piece of gear—

Boyd: I understand that. Land combat is more difficult. I'll agree with that. On the other hand, you made it a little bit too simple. They may maneuver one piece of gear. Remember, there are a lot of guys out there, and they've got to work with their buddies, as well as try to take out the other guy. They all have to work a super-*fingerspitzengefühl* together, so they build that harmony so they can do that. In the end, though, your job is tougher. I'll agree with that. There's no way I wouldn't agree with that. Yours is tougher. In a sense, they have more— It is easier for them to operate. You're on the ground. Many of the things you've got problems with— It's a tougher job. But some of those things they learned in a simple situation, you could take advantage and take aspects of it, and use it in a more complicated situation, like in land warfare or ground combat. The Germans did it. They use the word. Rommel used it, *finger*— It's amazing how they all used it, want to get that sure feel. We got off track, didn't we?

[slide 44] Okay. Jomini. The key idea and supporting mechanism. Remember, we already talked about the previous chart. Generalize the oblique order. Note this, it's a key idea. Divide theater support components into three— He said ideally into three subdivisions: wing, two wings in the center, you can do it two wings left and right [unintelligible], but he said the basic idea is so you have some what of thinking about it. Trying to give you a mechanism so you can employ the strategic and grand tactical maneuvers. And the importance of setting up a base of operations and line of communication. Not only that, so you can shift them and shift them—I mean you can change them and shift them. So you can actually gain leverage on this maneuver. And his strategy and grand tactics. Note this: By free and rapid movements, carries the bulk of the forces against fractions of the enemy. Those are important statements. If you're not free and rapid, how are you going to get your strength against their weakness? You're not going to be able to. Once again, the speed in the sense is the higher principle than the idea of concentration. He in a sense says that right in the statement. And all that Clausewitz brought out, he was trying to say together.

Okay, strike in the most decisive direction. I've got a caveat this one. That is to say, against the center or one wing, or the center and one wing simultaneously. Remember, I've got two things grouped together. Strategy and grand tactics, which are the operational level. In a strategic sense, you can go against the center or one wing because you're spread outward. In a grand tactical

sense, you can go against the center and one wing simultaneously. That's the only caveat. Otherwise, all the other ones stack up pretty much the same. And he recognized the importance of seizing his communications. In other words, cut him off from resupply. Cut him off from support. People tend to panic when they lose their support, and start doing dumb things, and force him to fight on a reverse front. If the enemy's forces are too much extended, pierce his center. [15:00] We saw that earlier in Napoleonic maneuver. Go out, flank, and turn their wing. Hit the enemy in the flank and also contain him at the front. That's Patton. Hold him by the nose and kick him in the ass. He might have read Jomini and got it out of that. I don't know. [unintelligible] Hold him by the nose, kick him in the ass.

Note this statement: Attack may be made simultaneous upon both extremities, but not when the attacking force is equal or inferior to the enemy's. There are too many counterexamples to that. It doesn't stand up. Even Napoleon at Dresden pulled it off. You look at Cannae and many other of the damn things done. Just too many counterexamples of that. It doesn't work out. But if you look at it more carefully than what he's writing, what he's really doing is he's juxtaposing the double envelopment versus single envelopment. Basically, what he is saying is you can get the same leverage with less force out of a single envelopment scheme as opposed to a double envelopment. Basically that's what he's saying. If you look at it in a very rigid sense, that sort of holds together.

Okay. His aim was what he called "make evident the secret to success in war." He was not trying to give you the secret of success, just trying to give you a way of thinking about it, so you can deal with these complexities, and that's what he's really saying, even though he uses that word.

[slide 45] Now we critique Jomini. Okay, preoccupation with a form of operations, arrangement of bases. In other words, very formal, very rigid in that sense. Also, a lack of appreciation for the use of loose, irregular swarms of guerrillas and skirmishers to mask— He didn't even put them down, he had— didn't have much to say [unintelligible] and likely resolve. He had some good ideas but you've got to really throw away those rigid lattice work [unintelligible].

In any case, we tie them all together, Napoleon, Clausewitz and Jomini. [slide 46] The key point here, they really didn't appreciate the importance of irregular tactical arrangements and activities. In other words, you look at— like say here, the opponent comes [unintelligible]. Top down. Emphasize adaptability at the top, regularity at the bottom. I made the point, I said that's one of those pervasive influences that came forward to the present day. One of my great Army colonels got up and he said, "You're wrong." I said, "Why?" "Because today we've got regularity at both top and bottom." [audience laughter] I said, "I'll remember that. That's very good."

So, why did that occur? In the first case that's what happened. Why did they gravitate to that? Remember Napoleon himself. Even though he was a product of the Revolution, he also reinstalled the aristocracy, where, you know, the aristocracy wants to control the people below them. So he did that. Plus the fact that he'd got a large empire here. He had to use foreign troops. He wanted to be able to also control them. So those kind of things happened. So, in a sense, by his own conquest and by elevating his own positions, he starts doing the kind of things that the

people did before him that allowed him to take them down. I guess you can go back to Lord Acton's statement, "Power corrupts. Absolute power corrupts absolutely."

Audience: Was that because in peacetime, he—

Boyd: Well, yeah. He was trying to run the whole Empire, and he had these allies, you know, the Prussians, who were supposed to be subservient to them, and so he had to put down stringent rules upon them. He wanted to be able to control them. Obsession for control. Obsession for control; that's what we're talking about. And the more you try to control people, guess what? The less control you get. It's like a paradox. In other words, the more you try to constrain their activities, the more people resist that and the less control you really get. That's why the sergeant had a very good point. His point was, you've got to make those people responsible below feel like they're part of the action. They've got things they need to do, and we're not going to treat them like automatons. The more you try to treat them like automatons, that's obsession for control.

Wyly: That doesn't necessarily mean the less control you get of the people. You might have them under control but the less control you have of the situation.

Boyd: That's right.

Wyly: So it's deceiving. People can think they have control—

Boyd: That's right. They really don't have it. They really don't have it. That's right. Like a paradox. Exactly right. It's like a paradox. Exactly right. Got to keep those things in mind all of the time. It's like discipline. You don't really want to be able to discipline people. What you want to inculcate in them is a sense of self-discipline because then you have discipline. If you always have to discipline people, you got a problem. You want to be able to set things up [20:00] so inside themselves they build up a sense of self-discipline. That's what counts. That's what you want to do as a commander or a leader, be able to inculcate them with a sense of self-discipline. Then you're a real commander. You're a real leader. Not only that, you have real control then, too.

Audience: Sir, when you developed this, can you recall any rationale why you looked at these three theorists—

Boyd: Not only that, people don't mind it because they feel like they're part of the team. You see what I'm saying? Go ahead.

Audience: When you developed this, can you recall the rationale why you just limited it to these three theorists or did you look at—

Boyd: Oh, I just— Remember, I said "historical snapshots." Since these were the principal theorists out of the 19th century, Napoleon, Clausewitz and Jomini, I wanted to focus on them because they had such a pervasive influence upon what we do today. That's why I did it. They're not the only ones. The other guys, you know, made comments too, but these were very

important. I mean, I can't do the whole military history. Somebody could always bring up— That's why I call it "historical snapshots."

Audience: I just find it interesting. I think DePuy¹⁷ just added Mahan to it. He used the same three and then he added Mahan.

Boyd: Okay, let me raise a question. Mahan, that's very interesting. Let's talk about both Mahan and Corbett, naval theorists. You being a Marine, you've got to bring that up. Well, where did Mahan get his ideas?

Audience: That's Jomini.

Boyd: From Jomini. Where did Corbett get his ideas? From both Jomini and Clausewitz and Mahan. Corbett got it from all three. The point is, it's interesting the so-called naval theorists got their ideas from the Army theorists. Period. Now they're upfront about it. They didn't plagiarize it. I mean, you know Jomini is very upfront where he got his ideas. I mean, excuse me, Mahan is very upfront where he got his ideas, and so is Corbett. They're very upfront about it. In other words, you know, they say, "Hey, these guys had some good ideas, but also these ideas can be modified somewhat and be applied to naval warfare as well as land warfare."

So, you know, there was no plagiarism. They just said these are good ideas, and they could be applied in this context as well as that context. So I don't want anybody to think that they stole them in that sense, because they were upfront about it. So DePuy probably finally read a naval book to figure out, "Goddamn," after he retired. Heh heh heh. I got the picture. In fact, I've used that in arguments. They say, "well, why don't you look at naval warfare?" I said, I don't have to because I know that the same guys the naval warfare guy used in order to build up naval warfare.

Audience: I'll remember that, sir. That's good.

Boyd: You can use that against him.

Audience: Sure.

Boyd: [slide 47] Okay, here is another theorist at the time. What he did, he said he was deeply influenced by Jomini. Emil Schalk, note what he wrote in 1862 during the Civil War. He said, "there are three great maxims common to the whole science of war." And they're not unfamiliar, you've seen them before. And of course, I added a little cautionary note here at the bottom. That's my cautionary note. Two things: while these maxims by Schalk portray in a general way, note I underline physical maneuver. You only bring out the physical, not the moral and mental. That's why I underlined that. That can be used to realize— Also, they do not address the non-

¹⁷ General William E. DePuy was a contemporary of Boyd's and fellow reformer. DePuy focused on reform within the post-Vietnam Army. In 1973, DePuy was made head of the newly-formed U.S. Army Training and Doctrine Command. DePuy's efforts to develop a suitable strategy for countering the numerically superior Warsaw Pact forces in a European conflict later led to the Army's adoption of "AirLand Battle" doctrine, which was often compared to the Marine Corps' "maneuver warfare" doctrine. While DePuy and other Army reformers were familiar with Boyd's concepts at the time, later allegations that they adopted them wholesale to create "AirLand Battle" are difficult to prove. Overall, Boyd's influence was much stronger on the development of Marine Corps doctrine.

adaptability and predictability of the drill regulation mindset that permeated the 19th century. “Maneuvers” at the tactical level. I put quotes around “maneuvers” because they didn’t look much like maneuvers, since they were rather rigid. There are some interesting books about that at this time. In fact, there’s a book— anybody ever read *Forward into Battle?*¹⁸ There’s another book— I’m trying to remember the name of it now. The one that two guys wrote about the southern [unintelligible].

Audience: Oh, McWhiney and Jamieson—¹⁹

Boyd: What’s the name of that?

Audience: *Attack and Die*—

Boyd: You want to read that very carefully. There are some interesting things in there. They’ve got a lot of quotes. There are a couple cases in there where a so-called attack broke down. Note the words. They really didn’t break down, but they lost all their goddamn uniformity and rigidity, and the goddamn guys floated at the enemy line every which way and they won. They sat there mystified. How did that happen? Then they went back to their old ways again, tried to pound it home and they couldn’t. Some of the ones were breaking—what they thought were breaking down were actually succeeding. What they didn’t realize was the ambiguity and deception, guys couldn’t deal with the fluidity. So they focused on the wrong thing.

Not only that, Jomini had the answer and refused the answer. You want to read Jomini’s book, *The Art of War*, where he was talking about cavalry. What he’s doing, he juxtaposes the Cossacks versus the French cavalry. He talks about it and he says, “They seemed to operate in irregular fashion. You don’t know how they’re operating but they seem to have a common purpose,” and he makes a comment upon the fact that Lloyd, who preceded him, saw that really the Cossacks were a better cavalry than all the other cavalries because of this. Then Jomini looks at this. He said he agreed with him, he said, “but however, we all know the regular cavalry is better,” so he voted against the evidence. He had all the evidence and voted the other way. He said, “We’re going to have these guys in nice neat formations.”

So here these other guys had the evidence where these guys are floating in and infiltrating the lines because the attack broke down. [25:00] “This is bullshit. We’re going back the other way” and blow everybody away. You want to read *Forward into Battle*. It’s in there. I read it. I said, “God, they don’t even read their own reports.” It was right there, right in front of their eyes. Couldn’t see it because they had preconceptions, presuppositions in their mind, those goddamned drill regulations. They said the attack broke down, but it succeeded. The attack didn’t break down, because it did succeed. Their formations broke down and because their formations broke down, it did succeed. That was the answer. The attack didn’t break down. The formations broke down. Because they broke down, they were able to succeed. Incorrect interpretation. You saw

¹⁸ Paddy Griffith, *Forward into Battle: Fighting Tactics from Waterloo to the Near Future*, 2nd ed. (New York, NY: Presidio Press, 1991).

¹⁹ Grady McWhiney and Perry D. Jamieson, *Attack and Die: Civil War Military Tactics and the Southern Heritage* (Tuscaloosa, AL: University of Alabama Press, 1984).

those. Remember that, Mike, we saw here? Geez, here it is, plain as day. They're quoting right out of it. Boy, this is beautiful stuff.

[slide 48] Okay. Impact of— Let's go up now— Of course, the 19th century saw the impact of a lot of modern technology and I want to bring that in. And we see these as key ingredients: railroad, telegraph, quick-fire artillery, machine guns, repeating rifle, barbed wire and trenches, and the early trends we begin to see: emphasis on mass firepower supported by rail logistics. Increased emphasis on a holding defense. But they still use these frontal assaults by large stereotyped infantry formations. In other words, they didn't break them down into smaller units and try to— and the result is not too surprising. Because the way they're operating, they're suppressing ambiguity and deception. Since they suppress that, they suppress surprise. The result is, you get a bloodbath.

[slide 49] Okay? Now if we tie it all together, the influence of Napoleon, Clausewitz and Jomini, plus 19th century technology, you see, boy, that really all comes together. It really denied any opportunity to exploit these kinds of things, like surprise. It was done in all these wars: American Civil War all the way down to the second half of the 19th century—American Civil War all the way down to World War I. The point I'm trying to make here is the evolution of tactics did not keep pace with the increase of weapons' lethality produced by the 19th century technology. This raises a rather interesting question. Why were the 19th century/early 20th century commanders unable to evolve better tactics to avoid over a half-century of debilitating casualties? Now, I'm going to pretend we're back in the 19th century and we don't know that answer. We're going to answer that question after we get up to World War I. Right now, we'll play we're all dummies. We're going to answer that. I'm going to delay the answer.

[slide 50] So now, what other influence came out of the 19th century as a result of capitalism? Impact of 19th century capitalism. Remember all that technology produced by capitalism. Capitalism itself had a big influence on insurrection/revolution. The key idea, to look up here, is the idea— now we begin to see struggle within social systems, rather than between social systems. In other words, we're beginning to see the beginnings of what today we call guerrilla warfare. Modern guerrilla warfare. And here's the trend, it's not too surprising. And the result. Which raises a rather interesting question. We're not just looking from an army viewpoint. We also want to look at it from a social viewpoint. Conflict exists there, as we well know. Not just between formal armies. **[slide 51]** Of course, we go back and pretend we're Marxist. Note that I say "with a Marxian flavor." And the only way out is via revolution and dictatorship of the proletariat.

It turns out they didn't have a dictatorship of the proletariat. Instead they had a dictatorship over the proletariats. In other words, they have a little mismatch between promises and reality also, a rather serious mismatch. In fact, as a result of that— remember, Marxism looked very good and communism looked very good before it was tested. After it was tested, it's going through the test, now all of a sudden they find out it didn't work. They went through extraordinary hops, skips and jumps trying to get their system sorted out.

Okay, necessary conditions for success: note this, crisis. You see it in their literature all the time. You've got to get a crisis. In fact, I always make the point in science. Science depends upon

anomalies. Without anomalies, you don't have anything to work on. If you don't pay attention to anomalies, you get mismatched. If you don't pay attention to the mismatch, you get crisis. Without anomalies, no mismatch. Without mismatch, there's no crisis. Without crisis, no change. People don't do a goddamn thing unless there's a crisis, perceived or otherwise, and then they may not do it right. They recognize that, crisis is important. Because that crisis can be a danger, but as the Chinese say, it's also what?

Audience: Opportunity.

Boyd: Exactly right. It's also an opportunity. And the vanguard. Note the vanguard. [30:00] They always bring up the—what's the vanguard? First they said— How many people read the “Communist Manifesto?” Probably some of you have read it. They talk about the proletariat being the vanguard of the revolution. Later on, they start talking about the Communist Party being the vanguard of the proletariat. Later on, they start talking about the Central Committee being a vanguard of the Communist Party and the Politburo being the vanguard—In other words, a very, very tight control over a very large ship. Vanguard inside vanguard inside— tight hierarchy.

And here's how it works. Why? Because what happens, the crises then build up the vanguard. The vanguard then exploits the crises. You get this incestuous feedback loop, and you pull the whole thing apart from the inside. It's in all their literature. You read American literature, we never even talk about that. But they keep bringing this up over and over again, in a key insight. I think we've been here too long. You want to throw the towel in? I want to get up to World War I. Let's just finish this. One more page, just one more page, and we'll have to do World War I tomorrow night, I guess. I want to get through that.

[Cross talk]

Boyd: [slide 52] So, we tie it all together. This is a good stopping point. Tomorrow night we'll start with WWI. Any questions before we depart? We got off track a few times but I enjoyed it. I hope you did.

Audience: When you talk about multiple thrusts—

Boyd: Yeah, we'll talk more about that. I'm not getting into a bunch right now.

[tape pauses, then begins with lecture the next day]

Boyd: We left off, remember we left off at the— [shuffling paper] here on this side, and when I'm done I'll go to the other side.

[cross talk, shuffling paper]

How's that? That pretty good, or is that bad? Do I have it good?

Audience: Good.

Boyd: Is this about right? Good, okay. Before we continue, I'll answer some questions. Any questions from last night, or we can dive right on. What we want to do is, we want to pick it up from now and go from WWI on. Any other questions from last night? Anything? Okay, let's launch then.

What I want to do now is continue to discuss—

Audience: Sir, could you go over your— explain the thing about center of gravity? I got confused on that last night. You didn't like the term, then you started talking about vulnerabilities—

Boyd: Well, let me go back to the way Clausewitz used it. He said— If you go back, I don't have that chart. I don't want to dig back in here, but if you go back to that chart where Clausewitz used it— back to Clausewitz. If you recall, he said it's where the mass is concentrated most densely. That's just not true. The center of gravity is, like I said, in donuts where there is no mass, or the hollow steel ball, so, you know, it's really bad once you accept that.

Say we accept his definition. Let's just say whether we believe it or not, we're just going to accept it, period, right now. If you accept that, that it's where mass concentrates most densely, then you go after that, then you've got strength against strength. That's where the mass is concentrated most densely. We said we're going after that, so you're going right after the mass, strength against strength. It throws you right into that. It doesn't have to be. It's really that connectivity. Things that hold together. As long as you can destroy that connectivity, you can pull it apart. That's why I say public opinion is so important. Like the Vietnam War, it's what pulled us out of Vietnam. You can get the public opinion, you get those connections that permit an organic whole to stick together. If it flies apart you, many non-cooperative centers of gravity, the game's over. If you isolate the constituents, one from another.

So his whole concept of center of gravity, which we use— we're going to go after the guy's strategic center of gravity. I don't know what the hell people are talking about. I say, "what is that?" They say, "Well, you know what it is." No, I don't, because I read Clausewitz and he's wrong, and I know you're using it. [35:00] How many people here have taken physics? Anybody? The center of gravity is always where the mass is concentrated in the most dense region. It can be.

Audience: It's not necessarily.

Boyd: It's not necessarily. It may be. In a donut, the center of gravity is in a hole. In a hollow steel ball, it's where the steel isn't. So the whole concept is baloney, the way he said it. It could be, but because he did that, then he said, "Now we're going to use all our effort to go against that center of gravity." Christ, that's mass smashing into mass by his definition, which is incorrect, it's unsuitable. It could be but not necessarily. That's why the center of gravity is a lousy concept. We say, "we're going to go after guy's strategic center of gravity." I don't know what the hell that is. What are we talking about? What is that?

So, if you're going to go after a center of gravity, if you can identify the center of gravity, not using Clausewitz's definition, but let's use a true definition of center of gravity. In other words, those things that permit an organic whole to stay together, whatever they are: moral, mental, physical. Then you want to find that thing that allows them to retain their connectivity. So if I can break down those connections and get everything flying off in different directions, now you've got many what I call non-cooperatives. Each one's a little center of gravity not connected up with the other one, you've got many non-cooperative centers of gravity. Then you scarf them up. But unfortunately, when you use that strategic center of gravity, they act like they know ahead of time. "We know exactly where that strategic center of gravity is." You know, you're imposing certainty in an inherently uncertain process, is what I'm trying to say.

Audience: Can you go back then, Colonel Boyd, and talk about vulnerability in relation to the concept? I think we went through that last night—

Boyd: Now, vulnerability— And I think it's another way of looking at it. Those kind of things your adversary depends upon, you may not know whether one is better than the other. You say, "Well, these things look very important." We've assessed it. We got inside it. You know, in the words of Sun Tzu, "Know your enemy," and all that sort of stuff. At least somewhat we know him—We say—Okay, you know, he really depends on them. These allow him to do what he wants to do, whatever they are. So we should direct our activities against those. Once again, you've got to be careful. He has probably also made an assessment, he's vulnerable there. So he's going to tend to protect those very heavily. In other words, critical vulnerabilities, he's probably also made that assessment. He may not have, but you've got to figure he may have. Good possibility. So, therefore, you don't want to go directly after those so-called critical vulnerabilities, because that also means strength smashing into strength. Instead, you want to exploit the weaknesses, so you can expose those vulnerabilities, so that they become unprotected. Then you can take them.

Audience: What if you don't have an option? You can't go—

Boyd: It's nice you said there's no option, because then that's a self-fulfilling prophecy, to say there's no other option. So you get a self-fulfilling prophecy. That's my viewpoint. There's all kinds of options.

Audience: Not belaboring the point, in World War II, did we have the option in the Pacific campaign other than going straight out among the islands—

Boyd: Yeah, MacArthur, initially he was going to do island hopping. Remember, his initial concept was island hopping, one after another.

Audience: But the island—

Boyd: Wait a minute. He was going to do island hopping, one after another until eventually the idea was to reach Japan. Pretty soon they said, "Hey, this is not such a good idea. This could take forever." So then he started doing leapfrogging and cutting off those other things by cutting their

lines of communication, so they withered on the vine. They couldn't do it. He went into a leapfrogging campaign. He's cutting that which they depend upon. In other words, if they can't get outside nourishment, support, et cetera., it's kind of hard to play the game.

Audience: Is that a center of gravity then?

Boyd: If you want to use that. I call it vulnerability. I don't like that word. You see, I'm ducking away from that word "center of gravity." It's got too much bad baggage with it. It may be "a" center of gravity. But see, what they do—They want people—It's not so bad to recognize there's more than one center of gravity. In other words, there are centers of gravity depending upon subsystems and all that kind of stuff, see. Because even when physicists or mathematicians use it, they don't take the whole universe. They say, this thing that we're going to examine, here's a center of gravity. There might be another one over here, because of other things they examined, too. Like I took a donut. I could have put that in a larger concept, and it would be a different center of gravity. You know, it's in the hole. See, they're going to go after "the" strategic center of gravity. They might be able to identify that but— Go ahead.

Audience: Sir, what would you call the will of the people? For example, the American aversion to protracted war, would you call that a weakness? A vulnerability? Or a center of gravity for the enemy to try and get—

Boyd: It might be a center of gravity but now see, will— Now you're taking something more abstract. [40:00] You're not taking the mass, per se. You're looking at what permits the people to have a center of gravity? What permits that? Since you want to use the term, you used it. So now we're going to use that term. What permits a center of gravity for the people? You say, we're going to go after the will of the people, so we are going to infer that that's a center of gravity. What permits that center of gravity to be? If you don't understand what permits that, what are you going to do, attack all the people? That doesn't work. That's bullshit. So that means you can't use the center of gravity concept. So if you're going to use that, you can do it. Then what permits that to go after that center of gravity. That's what I'm asking. You have to understand.

Audience: Mass understanding or national understanding.

Boyd: So what are you going to do, just get on the radio and say, "Hey, I'm going after your will. Surrender?" I am going to force you to cough it up.

Audience: I would say propaganda.

Audience: There you go, sir. Propaganda.

Boyd: Propaganda? Just because you've got propaganda, doesn't mean you have subverted their will.

Audience: How would I go about doing that?

Boyd: Yeah, but what is it you're going after? If you're going to use propaganda—

Audience: A national consensus, a national agreement—

Boyd: How are you going to get after that—

Audience: Well, for example, World War II, did we not have more or less national consensus it was the right war, the right time, the right places?

Boyd: That was only to solidify our own center of gravity, if you want to use that term. That was for us. But I'm talking about, we're going to try and undermine the adversary's center of gravity. We're trying to just solidify our own. How are we going to undermine his? The guerrillas do it very well. The guerrillas really undermine the centers of gravity very well. They figured it out. I'm giving you a hint.

Audience: Protracted war.

Boyd: Nah, no, you're not getting—

Audience: Through the use of violence.

Boyd: That's only part of it.

Audience: Well, yes, sir, but it is our troops being put in a position where they commit atrocities and then publicized—

Boyd: But he wanted to go after the peoples' center of gravity.

Audience: And then the death that occurs on each side, and then the publication of that death. All erodes the national will. That goes back to the Constitution which starts out, "We, the people." It's the use of violence on both sides, publicized by the adversary, which subverts ultimately, over time, the national will.

[cross talk]

Audience: The use of violence is not explained in a way that the people would accept.

Boyd: See, now, Mike's starting to come up with— what you want to do is, if you want to subvert or pull apart a guy's center of gravity. Note the words, "pulling apart." You want to find out what are those bonds, those connections that permit that organic whole to exist. You know, people aren't glued together. There are certain bonds or connections or rules of conduct, codes of conduct, standards of behavior. You want to see what they are. Then what you do, what the guerrillas do, they do it very cleverly. They say, okay, now, let's look at the leadership and see if they're abiding by those bonds, and then we'll use your word "propaganda," and they show the mismatch. The leader says this, but here's what he's doing. In other words, they've got a mismatch between the rhetoric and the reality, and they bring it up.

Not only that, they show people scarfing off funds and all that kind of stuff. Not only that, he does that in a situation where people are getting screwed. Remember I talked about that last night? Under what circumstances can you use ethics against somebody? It's when they feel like they're getting screwed. They're going to get very interested in ethics because "I'm goddamned getting screwed." So then you can develop as many non-cooperative centers of gravity, so they can't fight as an organic whole. That's based on what? What is the quickest way you can destroy an organization? Anybody? A Marine should understand this right off the bat. What is it? The quickest way you destroy an organization?

Audience: Destroy the morale.

Boyd: Go even deeper. How do you destroy morale? Mistrust. And when you see these guys playing these dirty games, you're building mistrust inside the organization, and it no longer can function as a whole. Mistrust and discord. You build that up and Christ, they're going to come unglued. Now, granted, you use violence as a part of doing that. I'm not saying that, but it's only part of it. See, that's how they work on it. So what we're going to do is, we're going to go out and have an attrition campaign and just pile up body counts and they're going to surrender. That's probably going to make them madder than hell and they won't surrender. That's why your leaders and your people's leaders or future leaders or lower level leaders, you've got to set the example. You can't say one thing and then do another. Because your subordinates are observing you and they say, "That dirty bastard. We've got to do this but he doesn't have to."

So if you're a leader, you've got to set the example. You've got to be tougher on yourself than you are on your own people, and if you're unwilling to do that, as far as I'm concerned you should get the hell out of the Marine Corps or any service. You should be tougher on yourself. Because they're observing you all the time. They're not going to tell you, because they know you have authority, but they're observing you. In other words, can they trust you? If you do that kind of stuff, you're going to already sow bonds of mistrust—I mean not bonds, but disconnect bonds of trust. You'll be sowing mistrust. That's what the guerrillas, they play that game. Of course, you can exacerbate with terrorism, but if you do terrorism wrong, you also can make it go the wrong way, which I'll talk about later on. We're going to get into some of that. Okay? That's why, if you have a chance, hear my strategy pitch. Because I get into that moral stuff very heavily. [45:00] We get into this stuff. I show you different ways you can pull a goddamn organization down around its socks. [unintelligible]

All I know is, it didn't work out too good. So why was the American will subverted, vis-à-vis Vietnam? It's because our leadership was telling us one thing, and the people were coming back and telling something else. We're winning the war. Goddamn, we're going to win it by this time. Everything is going good. Christ, in the meantime, we've got Tet '68 and all this other stuff going on and the guys are coming back saying—You know what helped exacerbate that? The one-year tour. Because the guys are going over there and coming back, and what they're doing is they're spreading among their friends, so the whole thing just builds up a groundswell. So, they found our strategic center of gravity; it was the will of the American people. And in a sense, we looked in the mirror and did it to ourselves. Okay, I don't want to take too much time with that, because we're going to get into some of it later on.

[slide 53] Now let's go to World War I. Remember, we started way back, you know, point of view and went back to Sun Tzu and came up to the present. I wanted you to sort of keep track of these ideas. Remember, when I said, we were going to break things down and put them back together, break them down and put them back together to find those invariants, those constancies, those kind of things that tend to hold up in conflict, wherever you are. We want to know what they are, because we can use that as a basis for getting at the other guy, rather than him getting at us. Instead of saying, "Well, Clausewitz is our god; therefore, whatever he says is great. We're just going to go by him," or Jomini, or Sun Tzu, or whoever it is. So that's what we have to do. Okay?

[46:58]

[End of Tape 2, Side 2]

[Begin Tape 3, Side 1]

Boyd: —and eventually what I call a finale, for lack of a better word. This is not a [unintelligible] World War I. So we'll go through that.

[slide 54] Okay. So first, the Schlieffen Maneuver. And here you see that they have these five armies here. The idea is to pivot on Metz, get in behind the allied armies and end the war. [unintelligible] basic idea. And of course you all know that didn't work out. I'm not going to get into that kind of thing, why it didn't work out. But what I'm really trying to bring out here, it's not any more than a huge, what?

Audience: Single envelopment.

Boyd: Single envelopment. In other words, you can think of it as a gigantic Leuthen. Flanking operation. In other words, you're trying to swing in a back door, grab the guys, cut them off from their supplies and support, force the surrender and end the war. That was the basic idea behind it. As we well know, there's all kind of reasons why it didn't work. I don't want to get into that right now. But that's what happened.

[slide 55] Okay. Now with that in mind, then, let's look at the action, reaction that flows out and stagnation came in, [unintelligible] what happened. I want to talk about what's happening [unintelligible].

First of all, these offensives tend to be conducted on wide frontages. So they emphasize few, rather than many, independent thrusts. In other words, each thrust was geared to the other ones. They wanted to do it carefully synchronized.

Remember that word I used to talk about the other night, carefully synchronize those thrusts. You go back and look at it. Christ, it was a goddamn— they were trying to choreograph the Schlieffen Maneuver. Well, what happens when you do that, if somebody gets slowed up, then the other ones get slowed. You go the pace of the slowest unit. We talked about that.

So evenness of advance maintained to protect flanks, provide artillery support as advance makes headway. Well, two things, you become predictable for two reasons. One, it's all working the same way. And two, when somebody gets slowed up, you operate slower so that also makes it predictable.

Those guys, all the time, they were worrying about choreographing the goddamn operation. Okay. Then what happened? When they run into difficulty, then they throw the reserves in at the point where the difficulty is. So the other guy throws his reserves in. What do you got now? A blood bath.

Audience: Strength against strength.

Boyd: You've got a blood bath. Strength against strength. And you just keep piling up strength against strength. You've got a blood bath, which is exactly what happened. And you go back and look, Battle of Verdun, you look at the Passchendaele and all those battles. Some of them we'll talk about, we see it done over and over again.

So eventually though, reaction sets in to this, where you're trying these maneuvers. Defense organized into belts of fortified terrain. Yes, it does. So-called trench warfare. Two key ingredients, artillery and machine guns, to arrest and pin down the attackers, and eventually the counterattack to throw the bastards out. Remember, they're all exhausted. It was going back and forth.

And of course, the results are not too surprising. But what was that the evidence of in terms of OODA loops? What does that really tell you, if you want to use the OODA loop as a measure of merit? What's that telling me? You don't have much initiative, do you? It means you're not getting inside your adversary's loop. He's not getting inside yours. It's just sort of a stalemate, going back and forth. You're just blowing one another away at a high rate. It's like an equilibrium condition. Stagnation and equilibrium. Just little gains going each way. And the result is large body counts with no appreciable gain. Because here's what they're doing, going along, there is no perspective in the way they're setting it up. Okay?

Well, let me talk to that, a good example. I want to make good examples, don't want to go too fast. Now let me give you some examples. The Battle of Somme, they figured, okay. We're going to break through. So they had a one-week artillery preparation in the narrow Somme sector, pumped in something like two million rounds of artillery over a one-week period. Just bang, bang, bang. Well, you know, the other side after a while is going to get wise. Hey, there's something going on here. We're coming pretty soon, guys. So that's a notion of predictability. And it's not only that, they prepared for previous artillery because instead of keeping the guys just in their trench line, they dispersed them on the field, plus they put them in bunkers, plus they started moving divisions into reserve.

So then on the final day of the rolling barrage, the infantry goes in in these nice, neat, standard formations. And the British, in the first day, then, of a seven-day operation, first day the infantry goes in, 60,000 casualties in one day. 60,000. In one day.

Okay. So what happened? The Battle of Passchendaele 1917— 1918, I'm sorry. It was the next year. What'd they do? Pumped in four million. They said look, we'll double this, all we got to do is we got to double the effort. Didn't change the metric. They doubled the effort. So they pounded an area. [05:00] I think they went ten days or something like that, it was two weeks. Back in again. Once again, huge casualties, no appreciable gain.

So think about that. For a long artillery preparation, what are you doing? Isn't that a notion of predictability? So the guys are ready for it, right? [unintelligible]. And then the way you make the attack, isn't that another aspect of predictability? Of course.

So what you want to be is, you want to be unpredictable. All the stuff they were doing, becoming very, quite predictable. Plus the fact— another notion of predictability, if you're going— you're able to make an assault upon their front, they're going to know way ahead of time, because in order to dump in those huge amounts of artillery they were pumping into the ground, you've got to build up the artillery stockages.

And you're not going to put them 500 miles away. You've got to put them near the front, where you're going to use them. And all that activity's going on, enemy reconnaissance and intelligence activity is going to build it up. They'll say hey, they're getting ready for a big operation here. So you want to think about that.

[slide 56] Okay. What happened? Eventually some people started thinking about that, in fact early on, and the so-called birth of which led to our modern tactics today. There was initially a French captain by the name of Andre Laffargue, who in 1915 said hey, this is a hopeless way of doing business. So he envisioned small units leaking through the enemy lines. He didn't have it all right.

The Germans captured some of those pamphlets, and then they augmented it even more. And eventually, of course, it was used against the West in 1918, so-called German infiltration techniques. Today they're known— some people call them Hutier Tactics.

That's why I put a question mark after him, because he was not an architect. He just happened to be commander on the German side that used them, and either a French or English correspondent used that name. And ever since then, it's been called the Hutier Tactics. But he wasn't an architect. That's why I've got the question mark. But he was a commander [unintelligible].

And the guy at a higher level that understood the importance was Ludendorff. When he saw what they had, he said okay, let's really train and do this technique. So from a supreme commander or high level commander, he didn't understand the [unintelligible]. He did appreciate the significance and [unintelligible]. We're going to talk about that in just a minute.

And in the guerrilla front seen through Peter O'Toole, you know, Lawrence of Arabia. Some of you people saw that movie, *Lawrence of Arabia*. And he saw a way of getting at the guerrilla tactics. Also, there was another gentleman by the name of Lettow-Vorbeck down in German East Africa. Anybody read about his exploits down in German East Africa?

In many ways, he was an even better guerrilla fighter than Lawrence because he was totally cut off, literally living on British supplies and causing them enormous problems. And as a matter of fact, he surrendered after Germany did during World War I. In fact, he wasn't going to surrender because he didn't believe them. The British told him that Germany surrendered. He said, "no, no, you're trying to just get me to give up my force." It took a lot of convincing.

He was stronger at the end than he was at the beginning. Not only that, you know what he did, early on against the British and the troops down there. He won an early battle. Note the word "battle." He said boy, another one of these victories, I won't have any force left. He said, I can't afford these kind of victories. So he got away and started playing very just— subversion, guerrilla warfare game, very small unit actions. Because he said if I lose my force, I'm out of business. He was greatly outnumbered.

Audience: Where did you say he was operating?

Boyd: German East Africa. He surrendered. The beautiful thing is, he surrendered after Germany during World War I. He was stronger at the end than he was at the beginning. And he was living off British supplies. Classic guerrilla tactics. In other words, living off the other guy's logistics effort, so to speak.

He caused an enormous problem, and he was only a colonel. And he was going up against like 20 or 30 British generals. He made them all look like fools. They always came up with a new plan, they're going to eradicate, they liked that word. And they all fell. They all went down the drain.

[slide 57] Okay. Now let's look at some of these. First the guerrilla. I mean, excuse me, infiltration. What do you see here? Something very different since the 19th century. Note, rather than trying to use their artillery to destroy it first. And what are you doing? You're trying to disrupt his defenses. And on the end, you have a short artillery barrage.

And if you think about it, the artillery now is being used for what? It's in a sense— you can think in Sun Tzu's term, it's a *cheng* to the following effort which is the *chi*. You'd think it was a *cheng/chi* operation, which we discussed last night.

And in the follow-on, small teams here and the larger groups. In every case, look and note what they're trying to do. They're trying to use the Sun Tzu metaphor. Remember what I said last night? Behave like water. Flow through the gaps and crevices, the voids, et cetera. In other words, strength against weakness. Trying to flow through. [10:00] And note that they didn't try to keep their formations nicely lined up. Each one tried to make his own pace through, not worrying about how fast or how slow the guy on the right or left of them are going. Work their way through.

And then the other teams coming in behind them, larger teams, isolating the local centers of resistance, and mopping them up from the flank and the rear. And then the larger units pouring through, these gaps get larger and larger, until you've got what Liddell Hart calls a torrent pouring through the front.

So it's in great depth. And of course, then the idea is very simple: hurl strength based on great— by an irruption of many thrusts. Note the word. Not just a thrust but see, wiggling in through there. Multiple, many. Because see, if everybody goes through up on line— I don't know— I've never figured out if everybody goes up on line, how do you get the other guy's flank. You can't get at a flank. In a sense you've got to present a flank in order to get at a flank. You say well, then we're in as bad of a position as he is. Not necessarily. The question is, who's got the exposed flank? That's the issue. Who's got the exposed flank?

So if you can operate at a tempo or pace that he can't keep up with, he can't understand what's going on. He's disoriented and you're not. He's got the exposed flank. You pull his pants down. He doesn't pull yours down. You scarf up the prisoners. He doesn't.

Audience: So an exposed flank—

Boyd: And in a sense, it's like the Sun Tzu metaphor. And Patton, I mentioned him last night, he said that. Some guy's worrying, he says, don't give me any crap about your flanks. Let the other guy worry about his flanks. I know you've got a flank. Make him worry about his. Let him have the exposed flank. That's Patton himself. He understood it. Another one he said, don't give me crap about holding your position. You've heard that one.

He was a little more articulate. I think his language is a little more rough than what I use here, but the point is, that's the essence of his message.

Audience: I don't understand what an exposed flank is then. Because you're saying that is—

Boyd: Well, look at it.

Audience: —the force that doesn't—

[Cross talking]

Boyd: If I can go through with multiple thrusts going through somebody, right, he's going to be in these little areas here, right? Let's say these are my thrusts. Right? I've got a flank here, flank here, flank here, flank here, don't I?

Audience: I understand that.

Boyd: But he's got flanks. The question is who's got the exposed flank. And if you're operating so fast he doesn't understand what you're doing, in a sense he's exposed because he's static here. You can start pulling him apart. He's not prepared for all these things being this way. It happened all of a sudden on him. You're prepared because you're in the operation doing it.

In fact, as I show you later on when we get into the blitzkrieg tactics, they talk about the rollout maneuver. You know, you had the thrusts and the rollout, or what the Germans call the off-roll. So you got thrusts going in all these directions. You're cutting them up.

Audience: Sir, I got a distractor going around my brain housing group. If Haig²⁰ had had the same observation and orientation of his frontline commanders, he would've seen that his movement was frivolous. Valid?

Boyd: Who? Who are you talking about? Haig. Oh, the Somme—

[Cross talking]

Audience: Yes, sir.

Boyd: Oh, okay. You're talking about the Somme. Well, remember, he was sitting back in a chateau...

Audience: Yes, sir.

Boyd: —getting some radio reports. He didn't go up and interact with the troops, and get the feel of what they could do. So he was divorced from what was going on. All he had was whatever he got in on these little pins that he's sticking in a map, and his radio reports that he was getting.

So he didn't really have a good impression what's going on. It's a false orientation. Yeah, I guess that's your comment. He had an orientation, but his orientation was the orientation you get at a rear headquarters, period.

That's a rear headquarters orientation. Unfortunately, it doesn't map to what was going on up there. In fact, I think he was the one that said after the Battle of Passchendaele, he said if I had only known what had happened, I would never have sent the troops into this goddamn operation. Which means he already knew he had a faulty orientation.

And that's why the commander's got to get up there in order to talk to their people, in other words, get the feel for the way things, also the situation they're facing there. So you don't take them into situations that are, you know, catastrophic disasters, blunders, whatever you want to [unintelligible]. You're still going to make mistakes, but you'll minimize them. We'll get into that later on. I don't want to bring up too much right now. But you're onto a good point.

[slide 58] Okay. But note what I say here. I've got a nice, vivid image of the infiltration technique, but unfortunately it doesn't really address how and why the infiltration schemes work. It doesn't really come to a sort of metaphorical answer.

[slide 59] Let's get into that. Let's pin this down a little bit more. Knowing that, we start pinning these things down, what do we see here? One, fire at all levels. Artillery, mortars, machine guns,

²⁰ Sir Douglas Haig commanded the entirety of the British Expeditionary Force for the majority of World War I. He has often been criticized for the high level of casualties absorbed by the British army under his command and an apparent detachment from the reality of the conditions of the front lines, though recent historiography on these charges is more mixed.

army level, [15:00] division level, various heavy artillery. What you do is you grab the guy's attention and pin him down. All that stuff going on around him, he's not going to stand out there in an artillery barrage and all that debris.

So in other words, you're clouding his what? His ability to observe what's going on. Okay. Then in behind him, not only that, the fire, the gas and smoke. What you do is you're cloaking the follow-on movement, the infiltrators' movement. Now the infiltrators, instead of coming through in these nice line-abreast formations, they're squeezing their way forward, dispersed and irregular character. They're actually little swarms, little tiny swarms working their way forward.

Okay. They permit them to blend against the terrain so they're also very hard to pick out. Plus all the other crap going on, the smoke, the gas, the fog. They came out of the fog. That helps out. So you take all that together, what you do—the defenders, then, since they've never experienced this before, they got a view they've never seen before and they just don't know what the hell's going on, scared of you.

So the result's pretty simple. In fact, I read some reports when these Australians were captured. They said next thing they know—they couldn't figure out what had happened. All of a sudden, they're being marched off as prisoners. Game's over. Being marched off as prisoners, the game's over. Totally confused. Totally out of it. Never seen anything like this. Note the key word. They were disoriented.

[slide 60] Okay? So then, in a sense when you say here's the essence, cloud and distort the signature. In other words, you don't want to—you want to give that guy as little signature on you as you possibly can have, so he doesn't know what the hell you're doing. Indistinct, irregular.

Yet at the same time, you want to operate in such a way you have a focused effort going through there. It doesn't appear like it's focused, but it's focused, where you can penetrate, shatter, and go mop up the disconnected or isolated debris, which is his system. Like you said last night, that's another way of defeating him in detail. In fact, that's a good way [unintelligible].

Okay. The intent then is quite—you're actually using not tactical concentration. You're using tactical dispersion. Because they were using tactical concentration, they were blowing their people away. Now they're using tactical dispersion, but they're doing it in a focused way, so they gain tactical success and expand the grand tactical success.

Now let's go back to Napoleon. What was he doing? He was trying to use strategic success to gain grand tactical and tactical. These guys do it the other way, use tactical to gain grand tactical and hopefully strategic, which they didn't get. It inverted the whole process.

Also remember what Napoleon had. He had strategic dispersion followed by tactical concentration. Here we have a tactical dispersion followed by, with a strategic focus. That's also inverted. But why were these things inverted? They're doing it just the opposite of the Napoleonic method.

But why were they opposite? Anybody? They had to. They tried it to the other way. They were getting blown away. This is the way they had to adapt to the lethal aspects of modern firepower. It's a way they could survive and live and achieve.

So they were forced to. So they inverted both techniques. And the implication's quite simple. They're exploiting tactical dispersion but in a focused way, rather than large formations abiding the "principle of concentration." They just worked their way through. They pumped the other guy's friction and paralyzed his effort to bring about his collapse. So they turned everything around. Just the opposite.

You ever see those World War pictures, those guys coming out of those trenches all going together forward? They have actual combat films. That's not just MGM or something. They actually have the combat films. Geez, I wouldn't want to be in that outfit. That's an unattractive way to do things.

[slide 61] Okay? So it raised a rather interesting question. Remember what I said, remember, instead of using strategic dispersion followed by tactical concentration, they're using tactical dispersion followed with a strategic focus. I cannot use the word concentration. It has a lot of excess baggage. You can call it concentration if you want to.

Okay. So what do you have? Instead of trying to use strategic success for your grand tactical and tactical, you're using tactical for your grand tactical and strategic. That's also inverted. So you say are these the rejection of Napoleonic methods? You may think so. But obviously because of my statement after the double dash, maybe they aren't. So let's address that.

[slide 62] And so in a sense what they've done, they've taken the infiltration fire and movement schemes, you can look at Napoleon's multi-thrust strategic penetration maneuvers being now called multi-thrust tactical penetration maneuvers. In other words, they're fine graining those penetration maneuvers and doing it all the way down to the tactical level rather than just the strategic level, *[20:00]* all the way down to the squad.

So my point then, is until the rise of the infiltration tactics, and of course the use of tanks by the allies, neither the 19th century nor the early 20th century commanders were able to evolve tactical penetration maneuvers to offset the increase in weapons' lethality until these things start showing up.

And you have to ask yourself, why? And here's some reasons. The aristocratic tradition, that top-down mentality, top-down command and control systems. The slavish addiction to the "principle of concentration." And the drill regulation mindset, and they're going to do all these things in a choreographed way.

All taken together, what it does, it reveals the obsession for control by high-level superiors over low-level subordinates to get them to do what they want. And what it really does, it restricts imagination, initiative, and adaptability in order to confront a different situation than they'd had before.

Now if you go back, remember I said yesterday, why were the 19th century and early 20th century commanders unable to cope with this, and develop tactical schemes in order to cope with increase in weapons— this new weapons technology? Here's the reason why. It's kind of a mindset. That's what [unintelligible].

And I'm trying to tell you something. The more you try to control your people, the less control you're going to have. Exploit sense. You can't make people automatons. You get control by getting them to understand that they've got a piece of the action. They're important to the operation.

And in that sense, rather than talk about discipline, the thing you want to inculcate in people is what I call self-discipline. That's the only discipline that counts. And that's what you have to do as a commander or leader. And when you can inculcate self-discipline in your unit, and get them to do things and take those initiatives, you then have control. But if you don't do it that way, you really don't have it. And that's what I'm trying to [unintelligible].

[slide 63] Okay. Now, let's move on. So in a sense, it still failed. Remember, they had success in the lower level and failed at the upper levels. So why did that happen? Well, here's some good reasons [unintelligible]. One: you can only start out successful. Once it started, when he gets resistance, he starts fighting against that resistance. In other words, you reverted back to type, strength against strength. In order to start supporting failure. Also, exhaustion of the combat team leading the assault. He didn't replace the team, same team. Later on, like in World War II, the Germans had a reserve, and they would insert the reserve and have a rotation policy for the leading edge units and the other units, so they could keep the operation going.

And logistics, they had to set up the logistics in order to handle those kind of things. And here's a very key one, communications that they set up. Remember, if you're going to use this kind of a technique, once it starts, the rear level commander now really needs that information flow coming from the front, who's succeeding and who isn't. Because depending upon who's succeeding and who isn't, that's how he's going to allocate the follow-on efforts, so he can go through those gaps. If he doesn't know who's succeeding and who isn't succeeding, he doesn't know how to allocate people. He's got to make some kind of an allocation, but it's not going to be a very bright one.

And see, that's one thing you have when you go strength against weakness, you have to know where the weakness is, who's succeeding and who isn't. And once they understand that, then they can reallocate or shift the *schwerpunkt* as we talk about nowadays, or the focus of effort. Go ahead.

Audience: When you talk about the immobility of the communications—

Boyd: World War I. Yeah, they had telephone lines. They didn't have the radios we have now. I'm talking about, Christ, they had to string telephone lines. Of course, artillery would be in and cut the telephone lines, and it's hard to string it. Remember, they didn't have much radio then. They had a lot of telephones.

Audience: I was going to say, the immobility of not being able to move the phones lines verses—

Boyd: Yeah. Yeah. I mean, it's sort of a— it's the best they had at the time. Relative to what they needed, it caused some problems. Christ, they were trying to run out the wire all the way up all the time.

Audience: And yet, it was a vast improvement over communications pre-Civil War.

Boyd: Exactly. Exactly. And of course, nowadays, we have— our communications are fantastic. Of course, in some ways they cause a lot of problems. We depend too much on them. And as I'll point out when we get to World War II, Guderian understood that. When you depend upon it too much, it can cause you some problems. He understood that, because we had a lot of radios during World War II.

Okay. So in that sense, when you think of it this way, in a sense it sort of softened some of the harshness. And of course, the idea of the elastic in-zone defense. Instead of this rigid defense, you have a flexible or a fluid defense. In other words, you pull back from the onslaught. Let your people come back, and then you draw the other guys out beyond their own artillery. You dump yours in, then start choking them off from the flanks and the rear.

But you have to have confidence to do that. People normally say, oh, we're just going to stand fast and we'll blow people away. Sometimes you want to pull back. Anybody ever read Manstein's *Lost Victories*?²¹ Remember how he said take that long step backward, get them in, and cut their balls off. In other words, he's using the terrain as a medium for maneuver.

Audience: [25:00] There are no lines.

Boyd: That's right. There are no lines. That's right. The FEBAs,²² the lines, that's all— the only time you have a FEBA is before operations start. After that, nobody knows where it is. So you're trying to put these FEBAs on the map after they started. It's a hopeless effort. It didn't represent anything that was going on.

If you have a chance, you ought to read his *Lost Victories*. It's very good. Boy, he takes that long step backward, gets the guy strung out, and then cuts his balls off. He gets a whole bag full of prisoners. Christ, their morale's shot to hell and everything else. He's not the only one. He just describes it very well. Other ones did it too. They said we're not going to give up an inch of ground. You put your guys in your trench and start pounding that.

²¹ Field Marshal Erich von Manstein, *Lost Victories: The War Memoirs of Hitler's Most Brilliant General*, trans. Anthony G. Powell (St. Paul, MN: Zenith Press, 2004). One of the German Army's most senior commanders during World War II, Manstein planned both the successful invasion of France in 1940 and several operations against the Red Army on the eastern front. He was eventually relieved of command by Hitler in 1944 for disobeyed Hitler's orders to hold all territory to the last man. While Manstein's position in the midst of multiple major operations during World War II make his memoir worth reading, his book has also been criticized as self-aggrandizing and white-washing those parts of the Holocaust which occurred in territory over which he had command.

²² Forward Edge of the Battle Area.

So when you think of it this way, what are you thinking about? The terrain rather than being— trying to hold the terrain, per se, using the terrain as a medium of maneuver so you can take out the force. Remember what I said? Terrain doesn't fight wars. Machines don't fight wars. People do it. And they use their minds. In that context, using the terrain is a medium through which you're going to maneuver in order to gain leverage on his force.

I don't care whether you're going forwards, backwards, or side wards or any direction. As long as you have the— you can have initiative going backwards too, you know. See, we're taught if we're going backwards, we've lost initiative. That's not true. As long as you got him playing your game rather than playing his game, you have initiative. And I don't care which direction you're going in.

Audience: Does that necessarily mean you have to take— look at terrain as fluidity vice an obstacle—

Boyd: Now— Normally you want to— terrain's important.

Audience: But what I'm saying is, rather than looking at terrain as an obstacle, you're looking at it, as you said, as—

Boyd: You can look at it— yeah, sometimes you also want to use the obstacles in order— by having obstacles there and reinforce those obstacles, you can get them to flow in a certain direction, too. But don't say because that's an obstacle, we make the whole terrain an obstacle and we're going to stand fast. That's what I'm trying to tell you.

See, because sometimes, you can use a certain kind of terrain. You can say, well, we can set stuff up so he has to go in a certain direction. We can cut him later on too. Nothing wrong in it. That's good thinking. But not to use the whole terrain as reinforced— using obstacles so they can't go up against it. That's my argument.

But you've got to get that in line. Remember, use the terrain as a medium through which you're going to take out his force. Not to defend it per se, but as a medium so you can take out his force. Because once you take out his force, you own the terrain whether you're going forwards, backwards, side wards, or any direction. Then you own it.

[slide 64] Okay. Let's go to guerrilla now. It's only one chart. Lawrence. Now remember, Lawrence was a scholar. I think he was from Oxford, Cambridge, I can't remember. He read a lot about this stuff. And he came up with the idea you've got to gain support of the population, very modern context. Arrange the minds of friend, foe, and neutral alike. Get inside their minds. He recognized it's mental. And then note this, he said, "be an idea or thing invulnerable, without front or back, drifting about like a gas." In other words, he's not defending the terrain. He's using the terrain to present some kind of an amorphous image to his adversary, so they can't come to grips with him.

In other words, he not only has fluidity, but he's got inconspicuousness. In other words, it's even more delicate than water. He's going to behave like a gas than like water. You're bringing the

idea of fluidity of action, plus the inconspicuousness, or indistinctness. And note this, another quote, “should be tip and run, not pushes but strokes, quickest time at the furthest place.” What’s he doing here by doing all this stuff? He’s trying to present a threat everywhere, but yet seem to be nowhere.

In other words, it’s like the Mongols. Remember, we read about the Mongols. Remember we said that’s the kind of thing they were doing. And so he said, it should be a war of detachment, avoiding contact, presenting a threat everywhere, using this mobility, fluidity of action, and environmental background.

And that’s what he did. He was working the Hejaz railroad. He was trying— what he did— actually he was the *cheng* where Allenby²³ was a *chi* for going into Palestine. What he was trying to do is, by doing all this action around the railroad, is to force the Turks to put in more and more troops and supplies there, and then drain away from their effort for defending the rest of Palestine, which made it easier, then, for Allenby to make his stroke into Palestine. So in this case, the guerrillas were the *cheng* and the regular force was the *chi*, if you want to use that Sun Tzu relationship there in that conflict.

But the thing you see here, as well as in the infiltration tactics, they’re using the terrain as a medium in order to get, what, leverage over their adversary. Not to defend the terrain, per se, but as a medium to gain leverage on him. That’s exactly right.

Now I’m not going to use this later on, but remember what Mao said. Remember he said there’s three phases to a guerrilla campaign. So I’ll preempt myself. I’ll tie it right into this, since I won’t use this particular statement later on when I get more into guerrilla stuff. He said remember, you’ve got the strategic defensive, strategic equilibrium, strategic offence. But in all three, it’s tactical offense, tactical offense, tactical offense.

[30:00] Remember, strategic defense means you’re backing up, and he’s still talking about tactical offense. What’s he really saying? What he’s saying, it doesn’t make any difference whether you’re going forward or backward. The key thing, do I or do I not have the initiative. And as long as I’m getting the other guy to do the things that I want him to do, rather than what he wants to do, then I have the initiative, makes no difference which direction you’re going in.

So therefore, another way to look at initiative is what? I get inside my adversary’s OODA loops, I got the initiative. If he gets inside my OODA loops, he’s got the initiative. And the reason why OODA loops are important, because they’re all human terms. People have to observe. They have to orient. They have to decide. And they have to act. And if you’re getting inside that, you’re getting inside that guy’s rhythm, his tempo, his natural way of doing business. He can’t play.

And that’s why it’s important. I don’t care whether you go slow or fast. People say no, we’re going to drive fast— no, no. As long as you— I don’t care if you’re slow, if you can slow him down even slower. It’s all relative. So you can tie initiative directly to that. Then of course the

²³ Field Marshal Edmund Allenby commanded the Egyptian Expeditionary Force in Palestine from 1917-1918 during World War I. His campaigns on the Sinai peninsula and in Ottoman-held Palestine drove the Ottoman armies from much of the Middle East and eventually forced their capitulation. T.E. Lawrence fell under his command.

idea is very simple. I actually prettied it up a little bit. These are my statements, but that's what he was getting at.

But basically his statements where he was— quoting him, he said the idea is to extrude the Turks from Arabia. That's what he was trying to do. That was an exact quote there from Lawrence, extrude the Turks from Arabia. So what he's doing, he's disintegrating a regime, even the ability to govern. And so here's the impression then. [slide 65] The infiltration tactics a la— seem to be, at least out in the field—

Now we've got to be careful, because we're going to get into some other aspects of guerrilla war that are quite different. But out in the field, the infiltration tactics, a la Ludendorff, are very similar to the guerrilla tactics as seen through Lawrence's eyes, very similar.

And why? Very simple. Because they both define the same kind of a game. The important thing is with the advent of modern weapons, rather than the guerrillas gravitating toward the regular force's techniques, the regular forces did what, gravitated to the guerrilla techniques because of the lethality of modern weapons. That's exactly right. At least in the field, I'm talking about. Some of those things we got to touch on here.

So we'll begin to see those kinds of things begin to emerge. And see, as I mentioned before, even in World War I they didn't like to do it, because they still hadn't come to grips with night attacks. Nobody likes to make night attacks. Why don't people like to make night attacks? And Clausewitz said oh, a night attack, you read Clausewitz, oh, that's a disaster. He's full of baloney. Because he looked at an absolute sense. And the reason why, it's very confusing. Well, guess what? It's confusing for the other side too.

And as I said last night, Terry Allen,²⁴ an infantry general in the Army in World War II, he trained his people at night, and they slept during the daytime. The Pentagon was furious at him. He said well, we had a duty officer in the daytime. He said you want to call me, call me at night. And he was the most successful division commander, infantry division commander, over in Europe, first time in North Africa. But he always went off at night. And they said well, Christ, that's confusing. He said yeah, but the other guy's more confused, because we've been training and they haven't.

And that's the issue. You're going to be confused. Can you get him more confused? That's the name of the game. As long as he's more confused, you got the leverage. You've got the initiative. You're pulling his pants down. He's not pulling yours down. Damn right it's confusing. But if you are acclimating yourself to it, doing it over, and your guy's, Christ, it's kind of natural in this confusion. The other guy hasn't been doing it. You're gaining leverage.

²⁴ In World War II, General Terry Allen commanded the 1st Infantry Division during North Africa and Sicily campaigns, and later commanded the 104th Infantry Division during operations in France, the Netherlands, and Germany. While Boyd states that General Eisenhower relieved Allen of command of the 1st Infantry Division, this occurred at the recommendation of General Omar Bradley, whose personality often clashed with Allen's, and who believed Allen did not instill sufficient military discipline in his soldiers.

Okay? I might add he was fired, Allen. And the reason why— he got his job back later on. He was fired after North Africa because his troops got out of hand. He gave them a lot of liberties, and Eisenhower got mad at him and canned him, sent him back to the States. And then they gave him the worst misfits in the army to put together another division, and he did. And then after— it wasn't right away after Normandy, but he went back to Europe. And again, he was the best division commander with a brand new outfit. Same thing, attacking at night.

He thought that other way was rather unattractive. Why do I have to lose my whole division, or half my division, for making a goddamn daylight attack? This is bullshit. I'm going to do it different. And the name of the game, we like to get out of the— not only take our objective, but we'd like to have a lot of guys standing at the end. That's not a bad idea. I think it's rather attractive. I think his troops felt it was rather attractive, too. They loved him, naturally.

[slide 66] Okay. The major advance between World War I and World War II has come up. First we see these things begin to go on. Soviet revolutionary strategy. And note that, what we're saying here. The importance of the crisis and vanguard. And the idea that it really plays upon the moral/psychological play. It's a big play now, and not just physical operations being the primary.

[35:00] And then the lightning war, the blitzkrieg, which came out of World War I. Actually pulling all these things together, the tank, motorized artillery, et cetera. An initial idea by J.F.C. Fuller, in the British army, that he had in 1919. Of course, it didn't take place because the war ended. And then Guderian, remember Guderian²⁵— how many people knew that Guderian was not an infantry officer during World War I? What was he? Anybody?

[Cross talking]

Boyd: Signals officer, communications officer, that's exactly right. He was a signals officer in World War I. Initially, he was an infantry officer before that. In fact, he got canned because he got in some trouble, and was forced to go into signals. Their signal corps, the equivalent to our signal corps. So he was a signals officer, as they called it then. Today I guess we call them communications officers. But he was a signals officer.

And so he was familiar and privy to the German infiltration techniques. He read the British pamphlets. Plus, he understood the importance of communications. He put all that together, and therefore he became the innovator of the blitzkrieg. How important that was.

And of course, his was to generate a breakthrough by piercing with multiple narrow thrusts. Note that, multiple narrow thrusts. We're going to talk about that later on. Using armor, motorized infantry, and follow-on infantry divisions, supported by tactical aircraft.

²⁵ Heinz Guderian developed many of the tactics used successfully by Germany's mechanized forces at the outset of World War II. He directly commanded panzer forces during both the invasions of Poland and France. In 1941, following the *Wehrmacht's* failed attempt to capture Moscow, Guderian was relieved of command for pulling his forces back in direct contradiction to Hitler's orders. Thereafter, he held largely ceremonial positions in the German military until the end of the war.

And then guerrilla war, Mao Tse-tung. Note what he did. He took Sun Tzu's ideas. He actually had some Napoleonic ideas, et. cetera, and embraced, embedded them under the so-called Soviet revolutionary strategy, and came up with a new way for waging war, guerrilla war. As a matter of fact, it's total war. Why do I say it's total war, his version of guerrilla war, anyway? It's more total than blitzkrieg. Why is that? I'm making that statement. Do you people want to dispute me on that? It's more of a total war than blitzkrieg. You say, Boyd, you goddamn lost your mind.

Audience: Because it encompasses political—

Boyd: Say it.

Audience: —economic, social, all aspect—

Boyd: Because he involves the whole fabric of society, like you said. When you talk about blitzkrieg, it's only going against the armies and the government. The people sort of remain in the background. But his thing, he's involving the whole nine yards in it, the political, economic, the social. He involves the whole fabric of society. That's why.

So in that sense, I don't care whether you use primitive instruments or not. The point is, he's got them all involved, as a result, he has a greater totality. Whether the instruments are primitive or not is a different issue. And that's the point. And that's something we haven't come to grips with, is guerrilla wars, they have in many ways a greater totality than so-called regular warfare. We have to come to grips with that.

So with that in mind, now let's go— we'll look through. We'll work our way through all three of these. First, the Soviet revolutionary strategy. [slide 67] I'll let you read it. Then I'll comment on it. Is this my water?

Audience: Yes, sir.

Boyd: Thank you. And note their emphasis on crises, and note what they're trying to do. As you work your way through these, you'll see it has a very high moral/psychological content. They're playing that all the time.

[long pause as audience reads slide]

Boyd: How does this first chart impress you? You see it has very high moral/psychological, you see what they're doing? I'll go into it deeper in the next chart. [slide 68] We'll read the second one, and then I want to comment on both of them.

[long pause as audience reads slide]

Boyd: All right. [unintelligible] That's just the second chart. Look at these words by Lenin. What's he bringing out here? The mistrust between what? The citizens and the government. To generate these many non-cooperative centers of gravity, he's doing it in a moral/psychological content.

Now many Americans, that stuff doesn't grab them. Why doesn't that grab Americans? You've read two charts. [unintelligible]

Audience: [40:00] Because we already mistrust our politicians.

Boyd: Huh?

Audience: Because we already mistrust our politicians. We're used to it.

Boyd: No. The reason why is, we're pretty well-off relative to other people. That's like putting you down where you can't get food and you're being crapped on by everybody. You're in a terrible goddamn position, you get this kind of stuff, you're going to be interested. You're going to be prepared to accept this kind of stuff. In other words, you're going to be mentally prepared.

Remember what I said, without a crisis, they don't have an operation. They've got to have that crisis. Remember what I said last night? Without anomalies, no mismatch. No mismatch, no crisis. Without a crisis, no change.

Remember I said that crisis is important to them because then they can insert, work the propaganda, tear apart, generate these many non-cooperative centers of gravity. People go oh, those dirty bastards. You're all mad at Wright now.²⁶ Took a poll, 75 percent of the American people, get rid of that son of a bitch.

Wyly: That's what I was going to say. There are some instances—

Boyd: Oh, yeah.

Audience: [unintelligible].

Boyd: They said get rid of that son of a bitch. In the meantime, though, but that's not in his district. In his district, oh, he's great, because they're getting all the benefits, I mean, at all the other taxpayers' expense. Oh, he's great. Don't worry about that stuff. We're doing wonderful. They went on TV and said it. Look what he's doing for our district, bringing all that federal money. It doesn't make any difference whether he was dishonest, corrupt, or whatever it is.

Wyly: Your Vietnam example is another one. I mean, people found out—

Boyd: Exactly.

²⁶ Boyd is likely referring to Congressman James Wright (D-Texas), who at the time was Speaker of the House of Representatives. At the time, Wright was at the center of several scandals: his aide, John Mack, was the focus of a *Washington Post* interview with a woman named Pamela Small, whom Mack had brutally attacked sixteen years earlier and then served a brief sentence before being paroled; the House Ethics Committee was investigating both Wright and his wife for receiving excessive speaking fees and gifts; and Wright allegedly received campaign contributions from "control frauds" involved with the Savings and Loan crisis.

Wyly: —they were being lied to and—

Boyd: That's right.

Wyly: —and it got to them.

Boyd: And not only that, remember, people were being sent over there, and getting killed, and not coming back. And this really made them mad. And in the meantime, they're being lied to because you see they aren't. It's just going on and on. So we didn't lose a battle over there. We lost a battle over in this country on the home front, which Harry Summers has a hard time coming to grips with. Go ahead.

Audience: This hinges on being able to predict a crisis.

Boyd: Or if not predict it, as it unfolds. You may not predict it right away, but you can see the circumstances are leading to it, and then organize yourself so you can deal with it. That's exactly right.

Audience: You're not creating the crisis. The crisis—

Boyd: No, they might be. They might be able to. They might—

[Cross talking]

Boyd: But they can amplify the crisis. If it's there, they can amplify it. You know, if there's no crisis, everything's working good, who wants a goddamn— the name of the game is, if it ain't broke, don't fix it.

Audience: If there are people that perceive themselves as have-nots, can there be a crisis—

Boyd: If they perceive themselves as have-nots and there's a sufficient number of them, that's exactly right. There has to be a sufficient number. The people in the top side, like Marie Antoinette, screw them. Let them eat cake. They were living great. Let them eat cake. No crisis for Marie and her crowd. That's exactly right.

But if there's sufficient number of them, and there's some leadership there, they can— it'll really come about whether the other people want to perceive it or not. And that's why, in some ways, when people say what's this mean, let's boycott— This is bullshit.

But if you're in a— people are getting hosed, hey, this is great stuff. Let's take those assholes out. We're going to get a piece of the action. We're talking about human nature.

Audience: That's the real strength of the terrorism movement today.

Boyd: See, and that's why as a leader— that's why I keep going backwards. I'll get into it later on. You have to set the example. If you say things, you may make some mistakes, but at least try

to correct them. As long as they observe you correct them, you're going to retain your following. But if you start playing games, saying one thing and doing another, and your people observe you, when the squeeze comes on, they're not going to be there when you need them.

I can't overemphasize that. Do you like it when somebody tells you one thing and does another, and after maybe one or two times that doesn't bother you, then you finally say, this guy's really doing a number. I'm getting goddamn tired of it.

[slide 69] Now the nature of blitzkrieg and guerrilla strategy, the idea of infiltration, isolation, or penetration and isolation. You're going to see me bring those terms up again and again. Penetration and isolation, or infiltration and isolation, and you do it at all levels, moral, mental, and physical. If you can't penetrate the guy and isolate him, why should he throw the towel in? He's not going to. No point to it.

Moral and political, economic sense, diplomatic, psychological, et. cetera. They try to use that as they strip away potential allies, thereby isolating their intended victims. To carry out this program, it's straight Sun Tzu here. Note this, exploit critical differences of opinion. Remember, I said that's how, you need that propaganda, internal contradictions, frictions, obsessions, et cetera, in that society in order to foment mistrust and sow discord, therefore shape both adversary and allied perception of the world—

Thereby— this is Hitler saying, these are his words, create an atmosphere “of mental confusion, contradiction of feeling, indecisiveness, and panic.” Make it difficult, if not impossible, for allies to come to their aid. [unintelligible] alienate themselves.

And then what you do is, you force capitulation, [45:00] combined with external political, economic, and military pressure. Then you put the pressure on, get them to throw the towel in. If they don't, then the foe's weakened. Then you launch the military blow into him and he comes unglued, can't hold in.

One of those things, remember South Vietnam. Remember, we had them all built up and Christ, goddamn it, after we left, why, the NVA²⁷ went through there like crap went through a goose. It was over.

Now you might say, well, hey Boyd, you know blitzkrieg and guerrilla is quite different. I'm going to show you they are different. But in this sense, they're the same. I'm just showing you, in this sense they're the same. As we go into the details, you'll find out they're quite different.

In fact, there's a Clausewitzian framework you can use in order to pick that difference up, we'll use later. Okay? With that in mind now, what we're going to do is look at first blitzkrieg, and then guerrilla warfare. So let's go dive into blitzkrieg.

But note what they're doing here. I want to bring out one other thing. What's happening here? If you're exploiting all those differences of opinions, disconnections and that, isn't that the same thing as we said before, generating those many non-cooperative centers of gravity? Exactly.

²⁷ North Vietnamese Army.

And you got non-cooperative center of gravity, they're isolated segments in a sense, more a mental sense. Therefore, you can scarf them all up and realize your purpose, which is the inverse Clausewitzian thing. In other words, he wanted to go after the center of gravity. That's bullshit. Generate many non-cooperative centers of gravity. And they can't function as an organic whole.
[46:24]

[End of Tape 3, Side 1]

[Begin Tape 3, Side 2]

Boyd: [slide 70] I wanted to get enough in there so you could see, maybe get the message across.

[long pause as audience reads slide]

In fact, you can say this is sort of, part of your observation. Here's your orientation. Here's your decision. And here's all this action taking place. Look at it that way. Think of it that way.

Looking at— I see that— you see that taking place then. I think most of you people are familiar with the *schwerpunkt* idea, aren't you?

Audience: Yes, sir.

Boyd: This is my editorial, as I mentioned, the *nebenpunkte*. In fact, I laid it on [unintelligible]. He said we don't have that. I said well, when you're not in the *schwerpunkt*, what do you call it? And he couldn't answer that. So I said then we're going to call it the *nebenpunkte*. Using their own language against them.

In fact Hassen van Heuser [PH] really liked that. He said that's pretty good. He's a German, you know, the German attaché. The reason I want to want to bring in an idea, you want to play the *cheng/chi* game. You know, the *nebenpunkte* in a sense is the *cheng*. The *schwerpunkt* is the *chi*. So you really want to set that up. Old Sun Tzu had a good idea there. That's a little bit of my own editorial, invention.

And then these special teams they sent, they had, the Germans had what they called the Brandenburg Regiment. Anybody hear about that, the Brandenburg Regiment? And then later on, Skorzeny and his boys. And their game is to do this kind of stuff so the guys are all confused and soften up what you're trying to achieve. It's very successful.

And then your firepower, and of course it just keeps cascading on. Just pour it on. But all the time, strength against weakness. Strength against weakness. And all those levels are working. And of course, the idea is very simple. The idea's very simple. Very simple idea. Okay?

[slide 71] Here's the impression I'm trying to leave you with. If you look at that, here's the impression. Look what happened to you. If you think about that, what are they doing? Generates

many non-cooperative center of gravity, because all these thrusts are going in there, and they're dividing not only physical, but mental and moral. They're working on that organism at all levels.

And so what does that do then? Well, it undermines them. Not only that, it undermines and seizes the important things that the adversary depends upon. Remember we talked about those vulnerabilities. Colonel, remember we talked about those?

You go through those weaknesses. Now you've undermined and seized those things that he really depends upon, his critical vulnerabilities, as you're working your way through his system. But you had to expose it before you could do that. Expose that vulnerability. Go ahead.

Audience: I can see where you get your non-cooperative centers of gravity in guerrilla war. Can you inform me how you get that from blitzkrieg, I missed that.

Boyd: Well, I sort of haven't. I cheated a little bit, not too much. We've got to go back to Guderian and, hang on [transparencies shuffling]. Multiple thrusts. Remember I said multiple thrusts? Guderian's multiple thrusts— I'll go into more detail later on. But I had it in that one chart. I didn't say it here.

Audience: Basically you were talking about the tactical centers of gravity vice—

Boyd: Yeah, but they do it at all levels. They do it tactical, grand tactical. I'm going to show you that later on.

Audience: What I'm saying is, they're not tying into the social fibers like the guerrillas do.

Boyd: But they're not getting into the social fibers like the guerrillas do. That's correct. Remember I said, remember they're not getting into that moral dimension like the guerrillas are. We'll get into that later on. I can't put it all in one chart. You've got to let me sequence it a little bit. But you're going to see, I'm going to bring it in. You have a good question. Just hang onto it.

But you're right. The point that they're not getting at that moral fiber like the guerrillas do. That's correct. There's a difference, and we're going to bring that out. I just can't do it all in one chart. I've got to bring out the first bit first. Okay.

But raises a nagging question then. How do they simultaneously sustain a rapid pace and abruptly adapt to changing circumstances? In other words, you're trying to go fast-forward and it's— if you adapt, it's hard to go fast-forward. If you go fast-forward, then it's hard to adapt. So in other words, they look like two things that don't go together very well.

Not only that, if you try to exercise two commands from the top, it becomes rigid. Yet you've let the guy do their thing. Then you can't hold the whole thing together. Two more opposing things here. Christ, we let them do what they want, the whole goddamn thing's going to fly apart, the operation. [05:00] On the other hand, if we impose too much control from the top, goddamn, you're slow as molasses in January.

So you have the opposing tendencies here. So the question is how you resolve these opposing tendencies. Here's one, rapid pace versus local adaptation. You get them adapting over, they're not going rapid pace into the rear. And the other thing is, you oppose too much top down command and control, you may have good control. But now you have a rigid thing that can't adapt. On the other hand, if you give them freedom, the whole thing flies apart and you're not realizing your purpose.

It's there, so you say we've got to resolve that. We can't resolve that, we got a big problem here. So let's look into that. [slide 72] So looking into that, here's a key point. Each level, from simple to complex, from platoon all the way up to theater, they all have their OODA loop or their OODA cycle.

But remember, the ones at the higher level are going to take much longer to go through. The ones at the lower level are working their way through those OODA loops a little bit quicker. So the higher up you go, you bring in more and more information, and longer time, in order to find out what the lower level is doing, so you can make your decision. All you're doing is you're stretching out that OODA loop. I mean, it's just natural. You can't avoid it.

Okay. So it brings in the idea, this point here. How, in a sense, can you get the slower rhythm of the larger pattern operating with a faster rhythm with the lower pattern? Each one sort of has a certain rhythm or pace they're operating at. They're different, but how can we harmonize them?

So first point, raises question, how do blitzers harmonize these different tempos and rhythms? Okay. So here's my initial response. Now this is just an initial blast. We're going to work our way through it so you can understand it.

First of all, you've got to give lower level commanders wide freedom within, that's the key word within an overall mind-time-space scheme. In other words, everybody sort of has the same conceptual scheme. They have the same kind of a conceptual scheme through which they're working through. And I don't care whether you're a squad, or whether you're a commanding general of the theater, you're all working within the same scheme.

Because if you've got one, the guy's got another, is going to get very goddamn confused. Then you've got to issue detailed orders and everything stretches out. But there's a danger, which we'll get into later on. So that's one point.

The second thing, you have to have shaping agents in order to implement that scheme. And the two that the Germans used here, I'll go into more, is their mission concept, sometimes called their *auftragstaktik* or *auftrag* concept. And also the other one, they call the *schwerpunkt*. Shaping agents.

We're still only getting to bloodshed. I want to go into it deeper. This is just the first turn on this. I want to give you a feeling for this. We talked about this last night. Okay? Now let's go after it, after having taken that first plunge.

[slide 73] So it raises a question here, or questions actually, excuse me. What does the overall mind-time-space scheme imply or presuppose? And likewise, how do these concepts, the mission and *schwerpunkt* concepts, fit into it? We're going to take both those on. First question first, mind-time-space scheme.

[slide 74] Look at that. And I'm quoting General von Rundstedt. I mean, excuse me, Blumentritt,²⁸ said the wrong name. And note what he said. According to him, presupposes a common outlook based upon, and I'm quoting him directly here— and incidentally, those are his underlines, “body of professional officers.” The same training during the long years of peace, the same type of education, the same way of thinking, et cetera.

And the second thing, furthermore, according to Blumentritt, “an officer's training which allows the subordinate a very great measure of freedom of action, and freedom in the manner of executing orders.”

Now, when he talks about a body of professional officers, who's he really talking about there? It's a euphemism for what? General staff officers. That's what he's talking about, the general, they gave it to the other officers too, but that's what he's talking about.

Audience: Other than historical fact, is there any significance to that?

Boyd: Well, there's a very big significance. I'm going to make it significant.

Audience: Well, no, to the fact that it was only in their case it was the general staff.

Boyd: No, it wasn't only the general staff. He's just making that point. I mean, they were sort of the cadre that also gave the other guys the same thing. Because the other guys who were not general staff officers got this training too.

But when he's using that body of— he's one of the aristocracy in the German Army. Okay. So now let's look at that. Let's examine that.

Let's assume that we didn't do that. We didn't give a guy going through all this, and therefore you said okay, let them run on their own. Christ, that thing won't hold together. You've got to give them detailed orders if you don't do that.

So the only way you can give a guy freedom of action is when you have a common scheme. If you give him freedom of action without a common scheme, the whole thing flies apart. It's when you have the common scheme, you can give these lower-level people the freedom of action, because they have the overall scheme of the thing like the other people, and they can then use their own initiatives in that.

²⁸ General Gunther Blumentritt served on the eastern front in World War I, became a tactics instructor in the interwar years, and served in the *Wehrmacht* during World War II, largely as a staff officer. He was the sole author of the plan for the invasion of Poland, and collaborated with Manstein and others on developing the plan for the invasion of France. Blumentritt later oversaw planning for the defense of the French coast against allied invasion, and was implicated but cleared in the assassination plot against Hitler in 1944.

[10:00] And that's my point. Without a common outlook, superiors cannot give subordinates freedom of action and maintain the coherence of an ongoing operation. That's the key idea. They can give them the freedom of action, but if they don't have the common scheme, the whole operation will fly apart. You can't maintain a coherent operation.

In other words, in a sense, what am I saying here? Anybody? What I'm really trying to say is you not only want to have individual *fingerspitzengefühl*, in a sense you want to have organizational *fingerspitzengefühl*.

You all remember the word I used last night, right? That's what we're talking about here, that intuitive feel. They all got it among one another too. Now I get into it deeper when I get in my *Organic Design for Command and Control*. Some of you people've heard that, how you do that. That's a very important idea.

Therefore, the implication is very clear. A common outlook, possessed by a body of officers, that represents a unifying thing that they use to simultaneously encourage subordinates to initiative, yet still be inside superior intent.

Think about it. Just run through the logic. If you do not have that common theme, how can you give freedom of action? If you do, the whole operation's going to fly apart. You're not going to maintain a coherent operation. And so you say, well, I'm not going to give them that. Fine, then you're going to have to have detailed orders. Now you've got a slow as molasses operation. Christ, it's going to take forever now to realize your purpose.

So in that sense, and I've never said this before, it just occurred to me right now I'm thinking about it. In that sense, how do you exercise control? This is very important. How are you— think about this. When you like to use the word control, knowing that, how are these people really exercising control?

Audience: Self-discipline through the common—

Boyd: Say it again. You said it.

Audience: Self-discipline to the common—

Boyd: The control is through the common theme. In other words, they all have the same mindset. In other words, they work in the same way. The same way. That's the discipline. It works through that. Excuse me, that's the control mechanism. The common outlook. The common outlook's the control mechanism, not the individual guy, whether he goes down this road, or does this zigzag, or whatever he does out there.

Audience: How do you explain the German ability, say, in the last months, say the last ten months of WWII, to maintain this common goal and common outlook, even though they had very little time to train junior officers and their NCO corps?

Boyd: You should read— incidentally there's a good book out on that. You ever read the Van Creveld's *Fighting Power*?²⁹ He goes into that. Even when it was down toward the end of the war, they still trained those guys real well, because they recognized that was important. They curtailed some of it, but they didn't stop that. Behind the lines, getting the guys ready, so they could go into combat instead of just feeding them in there like cannon fodder.

Of course, probably very near to the end they had to, because the SS men were commanding them. So under very trying circumstances, they still caused us a lot of problems. A good book on that is— in fact I think it's Van Creveld's best book, is that one, *Fighting Power*, where he gets into that.

Remember, instead of putting in individual replacements, how'd they put them in?

Audience: In by unit.

Boyd: You're goddamn right. And why did they put them in by unit? They wanted those moral bonds so when they do things, they can act. They have that unit *fingerspitzengefühl*. That's what they were really doing whether they said it or not, that organic harmony.

We don't like to do that. Say, oh, Christ, it causes all problems with personnel. Well, screw personnel. They're supposed to serve the combat forces. The combat forces don't serve personnel.

Yet, we'd rather throw that away. It's the American way. Fuck 'em. Those guys out there, they'll get along. We're going to send them who we want, when we want, and it'll be individual, and shut your mouth.

It's inconvenient for the personnel troops. After all, you're a dummy anyway. Otherwise, why in the hell'd you get in the infantry? All you're going to do is lose your life. I mean, that's the way some people think. That's what I'm trying to tell you. Don't take that personal. I understand where the argument is.

Of course, they think I'm a dummy because I was a fighter pilot. What's that asshole out there screwing around for?

Audience: I think we're all grasping it, but I want to see if these things are coequal or how they all fit together. The communications we have comes from three things. One is the common body of knowledge.

Boyd: In a sense, that common body of knowledge, that is your control mechanism. That's what I'm trying to tell you.

Audience: Okay.

²⁹ Martin van Creveld, *Fighting Power: German and U.S. Army Performance, 1939-1945*, 2nd ed. (Santa Barbara, CA: Praeger/ABC-CLIO, 2007).

Boyd: That's very important.

Audience: [unintelligible] two more, i.e. intent, self-discipline—

Boyd: Oh yeah, you want to inculcate that self-discipline. That's correct.

Audience: But how are they three things that we look at equally or—

Boyd: I didn't hear the— I only heard two.

[Cross talking]

Boyd: Common outlook and then self-discipline. What was the other one?

Audience: Yeah, and intent, the commander's intent.

Boyd: Intent. Well, the point is, if you treat— in a sense they're all together. If you take the common outlook, part of that common outlook is a commander's intent, I'll get to that in just a minute, and the self-discipline. It all plays together. It's part of the organic harmony. That's part of the overall common outlook. That's right.

Audience: And implicit communications and—

Boyd: Yeah. Yeah, it's all part of the common outlook. [15:00] But now, you still, even though we say, oh, we've all got a common outlook, we still got to execute the thing. You can't say just do it, because it may still come apart.

And so you need what I call, the word, shaping agents. We'll get into it deeper. We haven't gotten to that yet. All we've talked about is overall mind-time-space scheme. So let's get into that now.

[slide 75] Knowing that then, it raises a question, and this is— but how do the German concepts of mission, *schwerpunkt* fit into it? In other words, how do they shape this whole thing? So let's get to that. Firstly—

[Cross talking]

Audience: Colonel Boyd? Does the German army still have the same concept today?

Boyd: Mike may know that better. I'm not too sure.

Wyly: What's the question?

Boyd: That's a good question. I don't know that answer.

Audience: Does the German army today have the same concept that we're talking about?

Boyd: I think some of them do.

Wyly: They're trying to get it back. There's been kind of a controversy in the *Bundeswehr*, very much like the same one we've had here. And I would say they're closer to this than they were five years ago.

Boyd: They're trying to get it back.

Wyly: They're having a very similar debate to what we've had. They lost a lot of it.

Boyd: Yeah, we won World War II, so they want to do it our way. You know how that goes.

Wyly: That's right. And now they're gaining it back. So I'd be reluctant to comment and say yes, it's exactly like it. In fact, no, they don't have this whole thing thought out as Colonel Boyd's thought it out, by any means.

They're somewhere in between us and the old World War II German Army, in a word. There's a big—

[Cross talking]

Boyd: I wish I would've given it.

Wyly: Some things you do notice. Let me tell you one thing I have noticed, talking to German officers and getting [unintelligible]. This is why I'm interested in this. One thing that they have not done, it appears to me to the extent we have, is put this extreme emphasis on rank and seniority that we have.

That is, their juniors seem to be much more willing to enter into debates with their seniors, and their seniors don't think it's strange. Now we do it, but you watch the human dynamics, and we put, I think, an inordinate amount of importance on rank and seniority. That's one thing I don't notice that they've done.

But that's— as I say, I don't want to get off on— it's a good question. It deserves a long answer and probably some trips over there but—

Boyd: Yeah, and I haven't talked to Von Lousar [PH]. I know that they were trying to get it back. I just didn't know where they were. But I haven't talked to Von Lousar for a few years, because he was back in Germany. And then, of course, I had some problems last year so I didn't get to get [unintelligible]. So that's why I said to let Mike answer the question. I just don't know right now.

Wyly: But the general staffers, they had to go underground again. The general staff was—

[Cross talking]

Audience: —and all that.

Boyd: [slide 76] That's right. That's right. Okay. Now the message then behind it. Let's talk about this. Here's the German concept of mission. You can kind of think of it as a contract between superior and subordinate, an agreement. Whereas, in a sense, the superior determines what is going to happen, but the subordinate determines how it's going to be accomplished, as long as it's within the superior intent.

In other words, he doesn't tell him how to do it. As a matter of fact, let me give you a good example. Tell me, you people have heard of General Balck, haven't you? Hermann Balck? He was one of the most successful Panzer commanders. We had him over here, I think, I can't remember, 1981, or something like that.

We had him at the Pentagon, and we had him and the assistant secretary. We went through a long discussion. We had lunch in one of the nice dining rooms over here with one of the assistant secretaries.

And one of the guys said, "but how do you tell them to do stuff?" And Balck was insulted. He said "I don't tell anybody how to do anything." He said, "all we tell them is what has to be done and get an agreement upon it. They determine how it's going to be carried out."

He said, "well, what if you don't like the way?" He said, "doesn't make any difference whether I like it or not. He does it. I stand aside. The only thing I worry about is if I think it's illogical, I won't let him do it if it won't work. But normally they know how. It might be different from mine, but if it'll work, he does it that way. He determines how it's going to be done. I just determine what's going to be done." He said, "what if it doesn't work out?" "Well, if they do it a couple times and it doesn't work out, we're going to replace him with somebody else."

But normally, when they pick those guys, they've observed them for a period of time. And then he gave a good example. He talked about this one guy he had who was an Austrian. I think he was an Austrian. Might not've been an Austrian. But— no, it was a German. And during the prewar exercises and all that, the guy was a basket case. He was terrible. Couldn't do a goddamn thing right as a commander.

And so they kept him in the training thing all the time. Still, when they put him in the exercise, he couldn't do it. So eventually they needed him, because they ran out of commanders. Well, we've got to throw him in. We'll put him in a sort of a sector near the front. And he's doing pretty good. So they put him in another sector.

The wildest thing, the guy's doing better than any of the other commanders. So they said, now we're going to send him back and show him how to— we want him to teach his methods to the guys in the back. Once again, he's a basket case.

And I've seen the same thing among fighter pilots. I've seen them when I was out in Nellis. Some guys, Christ, they didn't know how to spell their name and how to tell anybody how to do

anything, but they were fantastic. There's an innate skill and they have it. They can get people's esprit up. [20:00] But in peace time, they're a basket case. And you see that.

He talked about this one guy. He said, every time, they couldn't believe it. They figured, now he's finally got the picture. Now he's going to show our young people how to do it right. Oh, my God, he was a total disaster. Back to the front and did superb.

But that's the kind of things you find out. You get those surprises from time to time. And I'm sure you've seen that in your people at different times.

Wyly: You know, there's one other dimension to that question you asked, that I think this needs to be brought out, about the German Army in World War II and van Creveld's German Army now. And Marines can relate to this. Because in World War II, you talk to any German soldier that was in that army, and their esprit was just incredible.

Boyd: Even in the worst days.

Wyly: Oh, yeah. I mean, right down to some of the things that we call discipline, you know, the pride in being a soldier. And that has a lot to do with it. And I think that's kind of what may've started some of this dialogue ten years ago. I had so many German officers say to me, you Marines ought to pick up on this, because you have a lot of what we had back in the days of the 100,000-man army before World War II.

Don't forget that since World War II, a lot of that has just come apart because of the pacifism, the attitude, the understandable attitude of post-war German. So the "click of the heels" and a lot of those things that made all these other things come together, the esprit and the camaraderie, some of that's gone. So it's a different thing.

Yet on the other side of the coin, the German culture has placed a tremendous emphasis on education. John and I were talking about that. And I would say more so than Americans do. And that gives them a different outlook, and that probably keeps them a little stronger.

They're weakened because they've lost some of the old military spirit, and that's gone. And they're going to have a tough time ever getting that back. But they're strengthened because they still put an awful lot of emphasis on education, more so than our society does.

Boyd: But note this. Note that second bullet there. That's the thing Mike was alluding to before. In other words, expect the subordinate to really throw his weight in there before the decision's made. He's given the right to challenge or question, the feasibility of mission if he feels his superior's ideas on what can be achieved are not in accord with the existing situation, et cetera, et cetera. Or if he feels he's not getting adequate resources.

He can challenge it. Expect it. We raised this to Balck. He says a lot of superiors don't like it, but they know they've got to do it. Some of them would not go along with the spirit of it, he said it was bad. You've really got to go along with that. So be sure you bring in those ideas before you make that decision.

Once the decision is in place, though, then they've got to carry out the decision. So if they're given this place, then likewise, of course, when you play that game, the superior has every right to expect the subordinate to stay within that intent and carry out the decision because he'd been given that opportunity.

In other words, there's sort of a contractual agreement there, is what I'm trying to tell you. There's a two-way sway, not just a one-way sway. Think about it.

There's a limitation. This is an important idea. I say, well, it gives form and expression to what was expected. What it really doesn't do, how do you coordinate or harmonize activity among many superiors and subordinates? You still have to do that. Okay?

Audience: [unintelligible].

Boyd: [slide 77] We'll take a break in a minute. [unintelligible] through this concept here. So with this limitation, how does *schwerpunkt* play into this concept? And of course, it's the glue that holds everything together, is what I'm trying to tell you. And I've said it different ways. I'll let you read it. [slide 78] And they have a *schwerpunkt* at all levels, from the theater all the way down. Theater, army group, army, corps, division, regiment, *schwerpunkt* inside *schwerpunkt* inside *schwerpunkt* inside *schwerpunkt*, or focus of main effort, or point of main effort. The main effort.

Maneuver of all arms and supporting elements are focused to exploit opportunities and maintain tempo of operations. Initiative of many subordinates is harmonized within superior intent. So if they know what the *schwerpunkt* is, in that sense then, implicitly each guy is cooperating with all the other people. You see what I'm saying?

Now there's a danger. I notice in some of the Marine documents, you say you designate a unit as being the *schwerpunkt* or focus of effort. You may do that. You may not. Let me show you where that might not play.

You want to be very careful with that. Let's take, for example, when the Germans decided to go through the Ardennes. I'm talking about 1940, not 1945, 1944, when they hit us in December. In 1940, when they went through the Ardennes, initially before that, they were going to have their main effort up north, you know, somewhat follow the Schlieffen Plan. Then as a result of Manstein getting to Hitler, [25:00] they shifted the *schwerpunkt* down to the southern sector. Why did they do that? Anybody?

Audience: Because there was no resistance there.

Boyd: Okay. So the *schwerpunkt* wasn't set because the unit was set, because that sector would give them a weakness they could exploit. So the *schwerpunkt* was set in that sector, and once it's set there, the units then are part of that *schwerpunkt*.

So don't just designate a unit. You want to look at the sector you're looking at. And you say, okay. This is the area I want to do it because they're weak here. And then those units become the *schwerpunkt* to go through there. Because otherwise, you're only internally focused. You've got to be focused outward, not inward.

Audience: Could you say that again, sir?

Boyd: Okay. I'll say it again. In 1940, so you get the whole idea— and they made a mistake later on. I'm going to show you the difference between the two. That's why I'm drawing this distinction right now.

We're talking about 1940. And if you people haven't read it, I'll explain it to you. There was a big argument in the German Army where the so-called main effort— in fact, most of them thought, until Manstein intervened, that they were going to have their main effort come out of the lowlands, Holland and Belgium, and sweep around almost like the Schlieffen Plan out of World War I, the same kind of idea.

And Manstein looked at that. He was very gifted. He said, that's bullshit. So then he got together with Guderian and wanted to know, he said we know the French are kind of weak here. Can we get those goddamn panzers through the Ardennes? Guderian looked, said of course we can. So then he drew up the whole plan for going through the Ardennes, and make that the main effort.

So the main effort, or the *schwerpunkt* was set not by the unit but by what? By the area where the other guy wasn't going to be. And then, since it's set there, of course, those units become the *schwerpunkt*, and all the support goes in there, the main support.

And the northern effort then became a *cheng* for the *chi* coming out of the south there. Well, it wasn't really the south. It was through the center there. It was just on the northern side of the Maginot Line.

Audience: It may just be semantically that I'm confused, but I don't see that that's any different than what we've previously talked about. In my opinion, in my mind, the focus of effort or main effort or whatever you want to call it, the focus of effort is directed at a critical enemy vulnerability. What you just—

Boyd: Maybe not. Maybe not. We had that argument last night. Maybe you might— if it's a critical vulnerability, he may defend it. Then it's going strength against strength. You don't want to do it. Remember, we went through this argument.

Audience: Okay. I'll buy that.

Boyd: We've gone through this. You've got to be very careful with that.

Audience: Using the concept of multiple thrusts, though—

Boyd: What you want to do is get him— you want to expose his vulnerability. You want to go through the weaknesses so you can expose those and get to him.

Audience: I understand that. Using the idea of the multiple thrusts, you may not pick your point of main effort—

Boyd: Say that again. I was going to do that next. Say it loud.

Audience: Using the principle of multiple thrusts, you may not pick the point of main effort until you've actually made contact with the enemy and identified the weakness.

Boyd: Wait a minute. Maybe. You're on the right track. But who's going to be the main effort? You've got five or ten thrusts going. You're going to pick one and everybody— say it.

Audience: Everybody can be your point of main effort.

Boyd: That's right. So focus of effort, and they're all part of the main effort.

Audience: The point of main effort can be not having one.

Boyd: But it's that area, and they're all part of the focus of main effort. That's why I say you've got to be careful. Designate one unit and all the other guys, you only get one to a thrust, because if you start at theater level and say okay, your army group's the main effort. And then inside that army group, that army's the main effort. Then you go down and you say, okay, the corps or division in front of you got the squads of main effort. Then you got one guy out there that's the main effort for the whole goddamn thing, from army group all the way down. That's bullshit.

Audience: Well, aren't you really saying—

Boyd: You see what I'm saying? I took it to a logical extreme, obviously, to show you that it doesn't work that way.

Audience: The key to that, it seems to me, is the adaptability on your line; in other words, don't be so rigid you can't change your main effort as the real battle unfolds.

Boyd: Well, no. But we're just saying as a starting point. We haven't even talked about shifting. We want to shift it later on, we know. We're just saying okay, we've set the operation up. We're talking about the Ardennes, 1940.

We haven't done any operation yet. We're just saying, okay, where are we going to allocate on the first day, regardless of whether we shift it the next day. All we're talking about is how are we going to allocate. What's going to be the big— this unit's the main effort because we like the guy or something? Fuck, he goes off? No.

What you're going to do is, you're going to look at the front there and say look, they have a weakness here. We can exploit that weakness. Therefore, the main effort is going to be set

because a weakness exists here, and then those units become part of that main effort because of the situation you're going against.

It's set primarily by your enemy being weak, not by your own forces. In other words, it's an outward orientation, not an inward orientation even though the *schwerpunkt* itself is inward. Am I making my point?

Audience: [unintelligible] definition of focus of effort is— by sector and area. Is that different between this and main attack—

Boyd: Well, you might sometimes— you already know it's weak all over. You may just say, okay. We'll just designate this unit. I just don't want you— you want a recipe. I'm trying to talk you out of a recipe. You may sometimes set it by unit. You may set it by sector. Understand, I use that as an example.

Audience: My question is—

Boyd: But in every case, when you set that thing, the thing I'm trying to tell you, in a sense it's going against the guy's weakness. So that sort of sets it, if you have a sort of philosophy going strength against weakness. It's how you're going to set that main effort. Go ahead.

Audience: What's the difference between focus of effort and main attack?

Boyd: Oh, same thing. People use things— the Germans use “point of main effort.” They talk about— we call it “focus of main effort.” Now the Marines like to call— I think it's a better word, “focus of effort” or “focus of efforts.” We're all saying the same thing.

Wyly: [30:00] But that “main attack” word is one where we have to be careful—

Boyd: You have to be careful.

[Cross talking]

Wyly: I mean, you talk about terms having a lot of baggage, see. And that's the term the Marine Corps was using.

Boyd: No, the one thing bad about main attack, Mike's onto something, if it's a main attack, how do you handle it from a defensive viewpoint?

Wyly: Exactly.

Boyd: See *schwerpunkt* can also be defensive.

Wyly: And also, that's the term the Marine Corps was using way before we even had this “focus of effort” concept, and so it tends to be kind of shallow. I mean, if you're thinking of “main attack” the way it used to be in our old FMFM's, I'd say forget it.

[multiple audience members begin rapid exchanges with each other]

Audience: I can understand that. But the College, the teaching is quite different [unintelligible].

Audience: Focus of effort, you all in the College, you're going to get FMFM-1 more—

Boyd: And it's "focus of effort."

Audience: No more "main attack"—

Audience: It's "focus of effort." FMFM-1, if we'd had it when the year started, we'd have saved an awful lot of agonizing discussions, which we saw. So "focus of effort" encompasses [unintelligible].

Boyd: But you're going to hear people still want to use the word German *schwerpunkt*. That's all right. Fine. They're talking about "focus of effort" or "main effort" or "focus of main effort" or— and I tend to like the word "focus of efforts" better, because what I want to do with effort, guys think well, we only want one thrust. I want the multiple thrusts. So it's "focus of efforts," so you have multiple thrusts. So you can pull the guy apart. You'll see that in a few moments.

But don't worry about it. What I'm trying to do is, don't think of it as a recipe. That's what I'm trying to get you out of. It's not always going to be— it's only because we designate this unit. I'm trying to get you out of that. You may do it that way, but there's these other ways.

The key thing is, what you're really thing to do is unwind your adversary. You're assigning it internally, but it's so you can exploit your strength against his weakness. It might be because of the terrain situation. It might be because of the way they've set their units. There'd be a number of reasons why you're going to do that.

You see what I'm getting at? Okay. And that's all I'm trying to tell you. I don't want to take it any— don't— what I'm trying to do, and you may hate my guts for it, is I don't want you to have a rigid recipe. Because if you start getting rigid recipes, then the guy's going to find out what that is. You would in a sense become predictable, and he's going to pull your pants down. He may not know it in the beginning, but after you do it a couple times, hey, I'm getting the picture. So then he'll play it against you. He'll use it against you. Go ahead.

Audience: Sir, I see a flaw in this, then. The Germans said they want to teach their officers to think the same way. They train them the same way, and more importantly, to think the same way. And there's an element of prediction—

Boyd: There's a danger. You lay it out. You're going onto something. Go ahead.

Audience: What bothers me is, I'm trained the same way my boss is. I'm trained to think the same way my boss is. The reason he can just say, "okay, my intent is," and I can take the ball

and run with it, is because he knows that I'm going to come to the same damn conclusion on how to carry out—

Boyd: Oh, no, no. Not necessarily.

Audience: Probably.

Boyd: No, no, no. No, no, no.

[Cross talking]

Boyd: If you hear my *Organic Design for Command and Control*, when you train your people, if you train across a narrow repertoire, then you'll tend to do it the same way he does. But if you have a wide repertoire, there's different combinations you can use. And so when you try to build this common mindset, it's across a large variety of different situations.

And so even though you have one "how" in mind, he may have a different "how" in mind. But you're still under the same framework.

Audience: Well, I'm limited by my assets and by what I've got available to do the job with.

Boyd: So what? I don't care if we have limited assets. There's still more than one way to skin a cat.

Audience: Not to me.

Boyd: If you don't think— then what you've got, you've got a self-fulfilling prophesy.

Audience: What I'm thinking is that—

Audience: Some can save time though, sir. There's many ways to skin a cat, but some can save time is—

Boyd: I understand that.

Audience: And if speed is most important—

[Cross talking]

Boyd: See, now you're looking for an optimum solution. We couldn't even get an optimum solution when— I was laying out the equations for goddamn trying to optimize airplane designs, and we couldn't do it. And you're going to do it with human beings. That's even tougher.

Audience: But I'm saying there may be a hundred different ways to do it, but there may be one or two or three—

Boyd: There might be a few in there that are better than the others. I agree. But that doesn't mean you're going to do it exactly like he's going to do it.

Wyly: In fact, it doesn't mean that at all. I mean, we're saying look for weaknesses and vulnerabilities. Now I might find a totally different weakness than you see. I might be able to find one that you would never perceive. Or you might be able to see one that I never would because we think differently. We're two different people.

Boyd: That's right.

Wyly: But we're both going to be looking for those weaknesses. That's the one thing our common commander knows.

Boyd: See, you might see a, because your orientation, because you said it, you may see a physical weakness on a guy. You understand what I'm saying? So you're going to allocate, and you're going to set up your focus of effort or your *schwerpunkt*, whatever you want to call it, against that.

Whereas, what Mike's saying, he may see, well, the way these guys have behaved before in battle, even though they've got a lot of troops, they're weak units. And in that sense, it's a morale problem, so you're going to direct it against it because he knows they're going to crumble. So he might set it differently than you would. You see what I'm saying?

[Cross talking]

Boyd: You're orienting differently.

Wyly: One of the best examples to study this is in the British Navy, but the Royal Navy is—I mean, they practice this in their own way. If you take a look at Cape St. Vincent and Nelson's action, it was totally the last thing his commander, Jervis, ever would've thought of to do. But yet, it accomplished exactly what Jervis wanted to accomplish. Nelson pulls out of the fleet formation and bottles up the whole Spanish and French fleet, and they win. [35:00] Jervis never would've dreamed of that.

Boyd: In fact, what did Nelson say about his people? They were so understood, he called them a "band of brothers." Same thing.

[Cross talking]

Boyd: Same idea, "band of brothers." You see what I'm getting at then? Don't try to make it too recipe. If you get it too recipe, then you start, a little bit too predictable. That's why I'm trying to deliberately set in excursions here. But as long as you have the same feeling, you'll build up that *fingerspitzengefühl*. That's what I'm trying to get at. Okay.

So you see the way I've laid that out then. So it's a unifying concept or unifying medium to work together, you understand. Go ahead.

Audience: I understand your thought process, and you talk about your medium through which subordinate initiative is implicitly connected to superior intent. Training can do all this, whatever. But when you have a specific mission at the tactical level, how do you do it? Do you do that with a five-paragraph order, and within there you put “in order to” so everyone realizes what the intent is, and then you leave them to do it? So are you talking about—

Boyd: Or you might not even have a— why do you have to have a written order? Who says you have to have a written order? I didn’t say you had to have one.

Audience: I did.

Boyd: I don’t need a written order. In fact, the Germans operated verbal orders only. Why do you have to have a written order? Who said?

Audience: Because every map-ex³⁰ we’ve done here, you get ten different people going in ten different directions. And if you don’t give them some guidance, it ain’t going to get done.

Audience: That’s a reflection on the way you think.

Boyd: But I’m saying you don’t have to have a written order.

Audience: I’m not saying you have to take the entire recipe—

[Cross talking]

Boyd: Not only that, in the U.S. Army, you ever hear of “Tiger” John Woods— “Tiger” Jack Woods, 4th Armored Division? Considered one of the best under Patton. He was the best armored division. One division, operating on a front 500 miles wide, and cleaning the clocks of the Germans.

You know how he gave his orders? He flew in his goddamn little Piper Cub and had the guy land. He’d go out and talk to the guy and say, you know what to do? Fine. Then he said, I got to hurry. I got to get to the other guy. So he’s going all over the front, just talking to them. No written orders. The other guys are sitting back there, they’re fucking— he’s succeeding, pushing forward.

[Cross talking]

Boyd: They said, Christ, you’re 500 miles, he said, forget it. Keep going, tiger. He unraveled the whole German front. Patton couldn’t believe it. In fact, Patton— he disobeyed Patton’s order. Patton says, you’ve got to loop here. He said, that’s not the way the war is. Fuck it. We’re going that way. And Patton was going to fire him.

³⁰ Map exercise.

He got to him. He said, look, goddamn it, the name of the game is to get Germany out of the war and going back to the coast. We're looking at England. He wanted to loop around. He says, bullshit. We're going to go right and pull them apart. And Patton looked at him. He said, you're right. Go ahead. [audience laughter]

But he had the guts. He had the confidence to do what had to be done. He was our best armored commander during World War II. You go out to Fort Knox, Christ, they think he's a god, or wherever it is they've got their Armored Center.

They called him "the Professor," as a matter of fact. "Professor" John Woods, because he was smart. He could think. There's a book out on him called *Tiger Jack*.³¹ And you know what he was? He was fired. And he didn't serve in North Africa.

His first combat assignment was after the Normandy operation. He got there late and he was their best commander. He didn't invade. He didn't land at Normandy. And then he got canned around Metz, because he wanted to use maneuver warfare, and they wanted to slug it out. So he got fired. He lasted about six months, and Christ, was the best armored commander they ever had. Go ahead.

Audience: So he achieved what the Germans tried to do through their training, all the— taking guys from the—

Boyd: Wait a minute.

Audience: —the age of pups and training them to—

Boyd: But he trained his people that way. They said oh, he was a stickler.

Audience: In a matter of months or a year.

Boyd: Oh, he worked his people, worked them all the time in the States.

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Boyd: I don't know how much time he did it, but he did it.

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Audience: So maybe we don't need all this training over years and years and years.

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Boyd: Don't say that. It's like a spear into my heart.

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Audience: That was my intent, sir. [audience laughter]

Boyd: Yeah, if you have all the training, which becomes like a choreographed ballet, it's no good. You've got to take variety and do it. You change things and all and you've got to teach different people.

³¹ Hanson W. Baldwin, *Tiger Jack* (Fort Collins, CO: Old Army Press, 1979).

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Sometimes what we do, we get in training, it's just drill after drill, the same old thing. Well, now everybody's rigid. They can't think. They're doing the same thing. And that's why I say you've got to always keep introducing variety in your trends.

And if you don't do it, you're going to have a narrow repertoire and the other guy's got a wider repertoire. He's going to clean you out. It's like a wide angle lens working— I mean, a wideband going against a narrowband. You know, communications.

You know what I'm talking about? Wide band communication versus narrow band. A wide band can work on narrow band but not the other way. At least all of the bands. So you want to wide band that son of a bitch.

He's only got a piece of it and you've got all of the pieces. Or more of the pieces. You don't have all, never. But you'll have more pieces than he's got, and you can pull him down rather than him pulling you apart.

Audience: We've been talking about this since last night. What we think we're saying is there's three levels of argument. One is a concept [unintelligible] you operate on. This is it, maneuver warfare, with all it entails. And then there's the repeated ability to execute it or apply it so you develop your repertoire. [40:00] You've done it so many times in map exercises and CPXs³² and when you can, full blown field exercises. But when the time comes, you've got a repertoire that doesn't have one or two answers.

Boyd: That's right.

Audience: But the key is, and we're struggling with it, is how do you get the tools like a five-paragraph order or whatever it is, and make those tools simple enough— we don't concentrate— how much time do we spend on staff actions? We focus on procedures. But what we should be doing is understanding the concepts, and practicing them with our limited tools. But that's easy to say, how we get there's tough.

Audience: Oh, I think we do that. But I'm just saying if you have something that's written, it's going to preclude having to ask a lot of questions that are naturally going to arise when someone says go from point A to B.

Boyd: I don't mind you having a simple order, a written order. I'm not against that.

[Cross talking]

Boyd: You don't just have to have a written order. I can do it in verbal orders. The Germans— why do you want verbal orders? I'm getting ahead of myself. You're pushing me. I'm going to answer your question. I'll get into that in a minute. I'm getting ahead of myself. Because I want to talk to that.

³² Command Post Exercises.

Okay? [slide 79] And if you look at their philosophy, here's the key thing behind it. What they're really doing, if you look at their whole operational philosophy, based upon a common outlook, freedom of action, realized through their concepts of mission, et cetera, they emphasize implicit over explicit communication.

In other words, since they have a common outlook, it's like in a family, and you and I are good friends. I don't have to give you detail what to do. I just give you an order or two, and you're on your way. In other words, that one word is dripping with information, so you don't have to say too much.

As a matter of fact, the British noticed that, that after a German unit came in the front lines, if it was a new unit, they'd talk a lot. After they got in there and were playing the problem, they'd get very quiet. You only had to give a few words to do stuff. In other words— in fact, even Mellenthin sort of tips you off. He said, we finally worked in our signals so we could work together very well. He says it very often in his *Panzer Battles*.³³ They worked together long enough, he said, we finally worked our signals so we don't have to say a lot.

So it's implicit over explicit, which suggests that the secret to a command and control system, it's not what's stated, but what's unstated, at least in an explicit sense. That's the secret. And by doing that, you can exploit lower-level initiative, yet realize high-level intent, thereby diminish friction and reduce time. Hence you gain both quickness and security because you're not talking a lot.

We used to train fighter pilots that way out at Nellis. Initially they're all jabbering all the time. So I'd take them up and work with them. And I said, I don't want you to say a goddamn thing. Nothing, if you can. They said we can't do that. I said well, I want as few words as possible when you're working together.

I want one word dripping with information because what happened, they're talking so long, the events are unfolding faster than they can communicate, so the whole thing just welled away into disordered chaos. So we got them working together, so they developed that *fingerspitzengefühl*. They'd say a word or two, and everybody's adjusting because everybody knew all the sequence that flowed behind that word.

And now, then, your communication is unfolding more rapidly than the events that are unfolding, now you're in charge of events, instead of the events being in charge of you. But if you need detailed orders, the events are spilling out faster than your orders. Christ, you're going to fall behind.

All you're going to do is generate confusion and disorder, and the whole system is going to come unglued. As a matter of fact, that's exactly what happened to the evacuation of Saigon. General Grey talked about that. Christ, they were pumping and changing his orders. And they were doing it at a pace that wasn't fast enough for the events. And they were just confusing everybody.

³³ Major-General F. W. von Mellenthin, *Panzer Battles*, 2nd ed. (New York, NY: Ballantine Books, 1985).

Finally, everybody stopped looking at the goddamn machine and how they're going to be evacuated. Old Grey likes to talk about that, General Grey. Some people were trying to fob that off as a smooth operation because they're doing it through a computer. He says, I was on the other end of that. That was a total disaster.

Remember that time, Mike, when he criticized the Army general, some Army general's trying to fob that off. He said, "I was there, were you, General?" He says, no. Let me explain it to you.

So by doing this, in my words, at least in the early part of the war, they were able to get inside their adversary's OODA loop. Or as stated by General Blumentritt, I'm quoting him here, his statement, note what he's saying there. And those are his underlines, which is almost like my OODA loop.

Note what he's saying. "Hinged upon rapid" —he underlined it—"concise assessment of the situation." That's orientation. I already assume the observation. "Quick decision and quick execution." There it is. Orientation, decision, execution. He just left out the word "observation." In other words, he's already gotten that through intelligence elsewhere. Those are his words.

And note what he says. "Each minute ahead of the enemy is an advantage." In other words, you're pulling down his socks, rather than him pulling yours down. I found that after, I said, "isn't that gorgeous."

Let's take a break. I'll give you a five-minute break. We'll come back and go through the rest of the blitzkrieg, and move on. We've taken a lot of time—

[Cross talking; tape stops, then starts again]

Boyd: [45:00] [slide 80] All I'm showing you here is their penetration method. Their impression of blitzkrieg penetration. I'm showing you they're zigzagging their way in. Here's the thrust. Sometimes you call them the thrust. And they call this— these are also thrusts. But when they go laterally, I like to call them off-rolling or roll-out.

The basic idea, what you're doing here is your zig— they want a zigzag. They're working strength against weakness, and then rolling that and cutting of the guy's lines of communication so he can't defend.

In other words, they're draining away their support, their rear support in that, and their lines of retreat. Not only that, they do it at all levels. You have those thrusts and roll-outs at battalion, at regimental, division. So you've got thrust inside thrust inside thrust, at all levels there. So the other guy says, what the hell's going on here?

Now, you see the way they represent the map, these nice, neat arrows going through. Well, that doesn't really work out that way. That's what I'm trying to tell you. Okay? [slide 81] So now lift it up to a higher level. So now we've got, let's say, a higher level thrust. But inside those, you've got these individual thrusts, you're working a pincer on a guy. And then out of these, more thrusts coming in, generating—

Basically, what are you doing? You're generating what? What's the key word? I said it earlier? What are you doing when you're doing that? You're generating what? Anybody?

[Cross talking]

Boyd: Non-cooperative centers of gravity. What you're doing by doing that, you're slicing in here, and coming in so that he can't function as an organic whole. You're generating those non-cooperative centers of gravity, and you're sweeping out the debris then.

[46:20]

[End of Tape 3, Side 2]

[slide 82 falls in the dialogue lost between changing tapes]

[Begin Tape 4, Side 1]

Boyd: —start doing things the same way, pretty soon your own troops are not adapting anymore. They start to get fixed mindsets, they get what the fighter pilot calls tunnel vision. Even if the situation's the same, do it differently. Because otherwise, you're going to become predictable.

[slide 83] Now, typically we tend to show it like this, but that's nice for a map and all. That's not really what was happening, there were multiples sweeping one way or the other.

[slide 84] Okay. So you look at the creation of blitzkrieg. Here's the kind of things they had: the envelopment, Leuctra/Cannae double/single envelopment, flying column, the tank attack, infiltration. Pull it all together and you've got blitzkrieg a la Heinz Guderian.

Multiple narrow thrusts. I have narrow thrust [unintelligible] Armored recce. Commanders forward. Commanders forward. In other words, they understand what's going on in the battle, understand what's going in the operation, so they can give the right kind of orders and they can adjust to circumstances.

And then extensive communication net. Not extensive communication, the sense of communication net with only what you have to say. And guess what they said to the Panzer [unintelligible] verbal orders only. Not just written orders, verbal orders only.

We asked Balck and the other German commanders, they have all the same reason. One, by giving a verbal order, what are you doing? If you only give a written order, you're really only communicating on one channel. When you give a verbal order, by your own personality, you're communicating on many channels. He really knows what you mean. So you have a richer communication. That's one reason.

Another reason why, is if you give a written order, the guy might then— you might actually suppress his initiative, because he recognizes if he sort of gets outside that order, he can be court-marshaled or something like that. So you have a verbal order, that doesn't suppress initiative.

More bold action. Then you write the orders up afterward. They may not read too honestly but—that's the point.

That's one of the reasons why I like verbal orders. So you don't suppress initiative. If one guy says well, we fucked up the last time, I'm putting more and more constraints in there, that guy goes outside, I'm going to have him by the balls because I've got a written order. But once a guy knows that, he says oh, I'm not taking a risk.

You see the subtlety there? So the verbal orders, it's looser but they have to understand what's going to be done. You also have to understand you have that common outlook. Note the words, verbal orders only.

One guy said well, hell, we saw the written orders. He said, that's right. After the fact. You got to have a good story for the archives. He saw not only that, they read a lot better that way. After the fact. They look more perfect. You know, it's like a Monday morning choir. Air in lieu or with artillery obviously.

[slide 85] Okay? Now here we're getting down to an actual question. Why do we employ multiple thrusts, bundles of multiple thrusts, or bundles of thrusts inside bundles of thrusts? Now some people say, well, for flank protection. You're really not getting at it. That's true. You get flank protection by doing it.

[slide 86] But here's the reason why. Because when you have all that stuff thundering through there, you're presenting many simultaneous and sequential happenings to generate confusion and disorder. In other words, the other guy really doesn't understand what's going on, so you stretch out his time to respond to react. He doesn't know what to do. You're stretching out his time. You're stretching out his OODA loop.

Therefore, you're also multiplying your opportunities, to create and penetrate gaps. Remember, you've got multiple thrusts through there. If you've only got one and you happen to hit a strength, it's over. You're done.

If you have multiples going, some are going to get hung up, some leak through, and at that point you start shifting or emphasizing *schwerpunkt* where they're going to go. And the other guys just keep the other guy's attention. Hold them by the nose and kick them in the ass. Well, except you've got multiple hold 'em by the nose and kick 'em in the ass. Not just one. You've got multiples. Hold them by the noses and kick 'em in the asses, you want to use a Patton-esque expression.

That's what you're doing. So by doing that, what's happened, you're creating multiple opportunities to split apart and envelop disconnected remnants. In other words, you're generating, what, many non-cooperative centers of gravity, multiple non-cooperative centers of gravity, so they can't function as an organic whole.

And that's the power. That is the power. Go back and read World War I where Foch tried those massive offenses, everybody grouped together. They went nowhere. Go ahead.

Audience: Well, one question, the maneuver warfare we've been studying all year, [05:00] part of it is to enable us to react and to fight a force that is going to be numerically superior than we are going to be. Now what this is telling me, I could be wrong in my perception of how I'm reading this, is that number one, to have all these splinter groups and splinter thrusts you're talking about, we're going to have to have the forces to do that. In other words, we're going to have to have a large force. What if, in fact, you don't have the large force?

Boyd: You can still have multiple thrusts. You're just going to have it projected against only a part of him rather than against a huge part of him. That's all. A good example, what Balck did, and I'll give you a good example. When he was in Hungary in 1944 or '45. I can't remember the year.

Wyly: I think it was '45?

Boyd: I think it was '45. Anyways, that's when they were being pushed back by the Russians. So you can look at the dates. And so that was pointed out for him. They said, well, Christ, one time you have eleven divisions—he was going against Russians. He only had three divisions. And they said, well, Christ, how did you defend?

He says, no way you can defend, Balck said. They said, well, how did you defend? He said I didn't defend. I attacked. Then he rolled up the whole Russian front. He'd come in with multiple thrusts and rolled them up from left to right or right to left, I don't know.

Audience: Even when the—

Boyd: And he was outnumbered better than three to one. And he made the attack. Well, that Clausewitzian bullshit that the defense is a stronger form, that's horseshit. Not only that—

Audience: Van Creveld, in his *Command in War* —³⁴

[Cross talk]

Boyd: Not only that is, I don't know if you read Clausewitz, not only that, he even contradicts himself. Because later on, when he talks about the mountains, remember, he says first of all, defense is the stronger form. Then he gets in the mountains, which is rough terrain. Then he says the offense is the stronger form. Well, he's already got a contradiction.

Then he gets in the forest, and he's a little bit more clever. I read that very carefully. He's sort of saying the offense is the stronger form, but he couldn't say it. But what he's really saying then, the offense or defense, whether one's stronger than the other depends upon the situation, whether it be terrain or people and that.

³⁴ Martin van Creveld, *Command in War* (Cambridge, MA: Harvard University Press, 1987).

So therefore, if it depends upon the situation, then you say, why do you say it's a stronger form? The stronger form depends upon what's the situation. Whether you're going to use the offense or defense depends upon the situation.

But he didn't say it that way, because he had to have an absolute notion. That's horseshit. Even in his own book, if you read carefully, he's got it wrong. And then he says, act with the utmost concentration, there is no higher principle. Then you go back in book eight, chapter nine, he gives four exceptions. The reason why, is because speed. You want to be fast, and there's no exceptions to speed. Well, if that's the case, then speed is a higher principle than concentration. Once again, another contradiction.

If you don't believe me, get the goddamn, you'll see. It's right there. But see, what he does, he's got a very goddamn heavy logic, and when you go through it and you try to go through his logic in his sense, pretty soon you get sucked into it. You can't think anymore. I found myself doing that. So I said okay. Now I've got to think in the outside. Hey, this is horseshit. Contradictions.

Now it doesn't mean he didn't have some good ideas. But I'm saying you can't take that whole thing. Because this crazy notion, that defense is a stronger form, if it is, then how come he says that the offense is stronger in the mountains? And he sort of alludes it's stronger in the forest. Then he makes some other comments in there, well, if the other guys— if you got more morale and the other guy's got less, it also may be the offense may be stronger.

Then you say, well, since the defense isn't the stronger form, then the offense is. But you can't say that either. Which one you're going to use is going to be dependent upon the situation. And in Balck's cases, he said there's no way I can defend with three divisions. I'm going to get cleaned. So he got a surprise attack, cleaned up the attack.

I mean, later on, they rebriefed their forces, pushed them back. But he stopped that whole operation they were setting up against him. So in that case, defense wasn't the stronger form. His attack or offensive was the stronger form. So don't believe that baloney. Read it carefully.

That's what's wrong with Harry Summers. He read that goddamn Clausewitz. Pretty soon he's got this goddamn prism. He can only go through a Clausewitzian prism. He doesn't understand what's going on in the world.

We won all the battles in Vietnam. He says we won every battle. That's bullshit. We lost the battle on the home front. Wasn't that a battle? He said yeah, that was the most important battle. We had to come home.

So if you're going to use battle as a measure of merit, be sure you don't just narrowly truncate, it's only for out in the field, there's no other battles. If you're going to use a measure of merit, you've got to be sure that it encompasses all the moral, the mental, and the physical phenomena. Otherwise it's a horseshit maneuver. I mean, a horseshit measure. So don't let people dazzle you with that crap.

And so you can see what's happening here. You're generating these many non-cooperative centers of gravity so you pull them apart. Okay, and then, which lead to this. [slide 87] [10:00] I'm trying to compress in sort of one chart, the essence of blitzkrieg. Here's the kind of thing you're doing. And the ambiguity, deception, mobility, and you focus that violence to quickly realize these kinds of things.

And we said the other night, you know, we always talk about it for the people that weren't here last night. We were talking about deception plans. But what about ambiguity?

Wyly: We ought to go back to what you were saying. You were talking about Balck in Hungary and the extreme case there. I'm still thinking of your question. I'm sure Balck was outnumbered. And I'm familiar with that quote too. He said, "I was so outnumbered, I had to attack." That's the way he put it.

Boyd: That's right.

Wyly: But now let's think about the invasion of France. The Germans again were outnumbered. There was no preponderance of forces when they used the same technique or the same thing, the invasion of Russia, or Genghis Khan.

As Colonel Boyd pointed out, Genghis Khan was always outnumbered. So—

[Cross talk]

Boyd: And he had multiple thrusts. He was not only outnumbered, Genghis Khan was not only outnumbered. He had multiple thrusts, and they were spread over areas you can't believe.

Wyly: So it's the illusion. In fact, it's exactly. Well, think of Ray Smith—

[Cross talk]

Wyly: —on Grenada. His Marines were the smallest force there. Yet the same Marines were being counted again and again. And I think that's something about multiple thrusts, is they do indeed give the illusion of numbers, of more numbers than there are because you're counting the same—

[Cross talk]

Boyd: You seem to be everywhere but nowhere.

[Cross talk]

Boyd: See, in one sense you're nowhere but you're everywhere and back and forth. The guys are, geez, this is all confusing. Okay. So the essence of blitzkrieg, you see how it's going. You create many opportunities to penetrate these weaknesses again and again, exploit those opportunities, and in a sense very simple in the implication.

The idea, I don't care whether you want to use "infiltrate," "penetrate," or "get inside his system." You generate those many moral, mental, physical, non-cooperative centers of gravity. And then if you can do that, then you can seize those things that he depends upon.

Those things you depend upon, what is that? We've been saying it yesterday and tonight. What is that? Those are the vulnerabilities, critical vulnerabilities, those things they depend upon. That's vulnerability.

But you've got to be able to pull them down and expose those vulnerabilities before you can get to them. Otherwise, if he knows they're vulnerabilities, he's going to defend against them. If you don't go through his weakness to expose him, you're going to have a tough time.

[slide 88] Okay? And so here we've got what I call the key to success. I just sort of wrap a lot of things up, or keys may be the better way— [transparencies shuffling]

[long pause as audience reads slide]

[slide 89] So here's some examples, then, of the successful: Poland. When we're talking about advance through France, I'm talking about Patton. Manchuria, the Russians against the Japanese Kwantung [PH] Army. The Middle East, the Israelis, Czechoslovakia, the Russians. The Middle East again, the Israelis after they got their act together. They had a little bit of problem at the beginning.

And then Russia, unsuccessful, winter campaign, fall/winter, North Africa, summer, et cetera. Let me talk to the Fall/Winter campaign 1942, '43. What was beginning to happen here? The initial campaign, why was it unsuccessful in a lot of the cases? In fact, I'll go down to the Ardennes.

As time went on, Hitler began to put himself more and more into the operational aspect of the war. In other words, you can see him start interfering in operations. And so the command structure became more and more rigid and less flexible. So by the time he got down to the Ardennes here, boy, he was determined how the operation was going to be conducted, not the commanders.

And every German officer I've talked to, I said why did he do that? And they said, very simple reason. He did not trust his commanders, he mistrusted his commanders. Did not trust his commanders. So that's an essential truth.

What I'm saying, all centralized command and control systems are based upon mistrust, not trust. Otherwise, why do you need it? It's based upon mistrust, not trust. [15:00] Now I didn't say you shouldn't have it.

Can you think of circumstances where even in spite of that, you definitely want a centralized command and control? And that's when you're dealing with strategic nuclear warfare. Because

you don't want some guy flinging off a goddamn weapon. So that is based upon mistrust, and it should be. That's one reason.

In talking to Balck and others, particularly Balck, made it out true. He said there's some other reasons why you want to do that, you might want to have real close guidance. He said, remember, let's pretend you're a division commander.

Let's just imagine you're division commander. He said, you don't get the pick of the litter. You're going to get some choice of people you want. You're also going to have to take some choices you don't want. And the reason why you're going to take them is other people don't want them either. So you're going to have to be a little bit more careful.

So the point is, what you want to do is have one kind of orders for one guy, a different kind of orders for the other guy. In other words, you give some people a long leash, more detailed orders for somebody else.

So instead of having one command and control system, in a sense you have multiple command and control systems so you can maintain that organic wholeness. Now, with our modern electronic communications, how in the hell can you do that? If you depend upon just electronics, you can't.

And that's why they had verbal orders only. Don't you understand? Because you can do it that way. But if you send out a message, then it has to be the same kind of message for everybody. But now when you do it verbal orders only, you can be sure that you're going to tailor your order to the kind of guy you're dealing with. In other words, it's personality-related. You're communicating on multiple channels.

And what is that command? You're not even going to be able to do that unless you know your own people. So if you're sitting back in a chateau somewhere and don't know your own people, you don't know what orders— what different orders you can give to different people to realize your intent.

Some guys, you're going to put on a long leash. In fact, he talked about a couple of those guys. One guy, Christ, he only talked to him maybe once a week. He knew what had to be done. He says, if you have trouble, call me back once in a while and we'll go over it again. Those other guys, he watched them every goddamn day.

But remember, the only way you can do that is if you know your people. And if you don't know them, you can't play that game. Very important. Okay?

[slide 90] With that in mind, let's get into the guerrilla stuff now. This is my longest chart. I'll let you read that and we'll comment on it. Insurgency, guerrilla, et cetera. Note what I said. Capitalize on discontent and mistrust. Where you got to get those so-called crises in order to leverage the situation. That's your *raison d'etre*, reason for being, if you're a guerrilla.

[long pause as audience reads slide]

It's a damn insidious game, as you can see. And a very successful game, isn't it? If you've got the right conditions for it. So what do you observe here? Now you're observing, what, many non-cooperative moral, mental, and physical centers of gravity here. If they're imposed upon a government so the government can't function, the regime can't function as an organic whole.

[slide 91] So if you want to boil that down, [20:00] here's the essence of the whole thing. Here's the intent behind it and the implication associated with it. In order to counter that, you've got to set up sort of a counter-game, and that's what the CAP³⁵ teams were trying to do in Vietnam. And of course, that's not fighting a war with ways—you know, you're not allowed to do “search and destroy” operations there so we got out of that, said, hell, we can't do that “search and destroy” stuff.

How many people here saw the movie *Platoon*, by any chance? It can't just be me. What was the central message that came out of that? There is a central message. What was a big event in there? Remember, it was the attack upon the village. Remember that?

And a lot of Marines and other people get mad. They say well, you shouldn't be showing the American people that. That stuff happened. You can't call these guys murderers. That's true. But it happened. They're not calling them murderers. But what's the whole point of that?

I'm trying to hint and tell you something. We shouldn't be attacking those goddamn villages. We should've been in the villages to try to get the other guy to attack it. Then he's the enemy. And that's what the CAP teams tried to do. We worked the problem the wrong way. Exactly the wrong way.

And the initial CAP teams that were sent over there, and the initial Special Forces, were trying to do that. Oh, hell, that takes too long. See, they understood it. You subdue the enemy without any fighting. Make the other guy do it. Then he's the enemy. Then you got the leverage on your side. And Mike can tell you about them guys were over there.

Tell them about that situation, that one time when you were there, what happened, Mike, when they pulled you off that. It's a very important point right now.

Wyly: —1965 and—

Boyd: It's a real important point.

Wyly: We were working on the people and getting a good number of defectors to come in, and then using the defectors to go out and get other defectors. And as time went on, we put a message out to the people that— and this came from division and headquarters.

We had authority to tell the people that the Marines were going to stay. Because it was a big question in the people's mind. They used to ask me a lot of times when I'd operate in the villages. I was just a first lieutenant. Are the Marines going to stay here or not? Are y'all going

³⁵ Combined Action Platoons.

to leave? And I went in to the Chief of Staff and tried to get in to the General, and get an answer. And finally, I was very naive. I was a first lieutenant. They kind of gaffed me off, oh, oh, we're going to stay. We're going to stay here.

So we put that out in leaflets and by word of mouth, everyone we could, Marines are here to stay. Then we took off and left and went out into the hills to search and destroy—

Boyd: You were ordered to. You didn't want to. You had no choice.

Wyly: That's right. No choice at all. Well, and then we came back again, the families of the people that had been working with me had been assassinated. And we never got any more defectors again. You know, we got zero cooperation.

Boyd: Now you have to attack the villages.

Wyly: And my Colonel— when I went back to the Colonel and told him what happened, he said Lieutenant, you killed them. You killed them. You murdered them. You're the murderer. So I went back and sorted that out for a few years. But that's in a nutshell, a very true story actually. We didn't understand the whole [unintelligible].

Boyd: See Sun Tzu says, subdue the enemy without any fighting. You don't want to go out into the weeds out there. You want to own all the people. And next thing, the other guy has no resource to work with.

Audience: But in order to do that, you're going to have to be willing to enter into protracted warfare, not only the military men but also the civilian population, so you have to—

[Cross talk]

Boyd: That's right. You have to be willing to play the game so you can leverage the game. That's right. Magsaysay understood that. Do we understand? Do we? I don't think so to this day. I'd like to say yes, but if I say yes, I have a feeling I'm telling one hell of a lie.

Audience: Oh, no, I think the military understands, the population doesn't. I don't think the military's willing to do this, protracted war.

Boyd: I think a lot of military people are not— I think that we're coming to terms with it, at least some people. But I think as an organic body, I don't think we still— well, look at down in Central America. We still— you know, that's a more recent one. We've still gooned that damn thing. Not that we shouldn't have been there, but the way we go about it.

Wyly: If the alternative is not to do protracted war and lose, okay. Do that. Do it another way and lose. I think we're less willing to lose than do protracted war, if we think it through. Although I'm not saying, I'm not buying onto that protracted war. I think there's some quicker ways to do it.

[Cross talk]

Boyd: I think you can do it rapidly, I think you don't have to have it protracted per se. But it's not going to go at this so-called blitzkrieg pace you want to go at.

Wyly: Yeah, but if the alternative is doing it protracted and having a chance of winning, or doing it fast and losing, that may sound ridiculous but—

Boyd: See Magsaysay³⁶ did, when he—after he got on board, which I'll get into later on, he wrapped it up in two years.

Audience: Who's that, sir?

Boyd: Magsaysay. Ramon Magsaysay, when he came on board. They were going down the tubes. In two years, he turned the whole thing around.

Wyly: And we had that whole example before us, before we went to Vietnam.

Boyd: It was all there.

Wyly: I studied Magsaysay inside and out as a first lieutenant when I went over there in 1965. [25:00] And those examples were there. Combat history examples, problem books and—

Boyd: He did it in two years. You can't say that's real long. It takes a little time. But he turned the whole goddamn thing around. Got in there, got it cleaned out. The guerrillas did it in two years. They were going down the tubes. From defeat to victory in two years.

Wyly: We use that model for our [unintelligible] for setting it up. That was one of the models that we used.

Boyd: Defeat to victory.

Wyly: And the information was out there.

Boyd: It was out there, but you know, that's not those nice European plains. You've got tanks thundering through, personnel carriers, close air support, and all that stuff. That's not our way.

Audience: Where was that, Colonel?

Boyd: Magsaysay, Philippines. So here's what you're trying to do. You shape and exploit crises and then use this, like we said before, so the implication's very clear. You're trying to penetrate

³⁶ Ramon Magsaysay was serving in the Philippine Army when World War II began. After invading Japanese forces successfully captured the islands and caused the American surrender at Bataan, Magsaysay evaded capture and organized a guerrilla resistance until American forces returned in 1945. In 1950, with the Philippines facing a new insurgency from communist Hukbalahap guerrillas, Magsaysay was appointed Secretary of National Defense and led a successful counterinsurgency campaign against them.

the very essence of the adversary's moral-mental-physical scheme. Generate the many non-cooperative centers of gravity. That's the message. Go ahead.

Audience: It's obvious, but it applies to the understanding of the language and culture and religion.

Boyd: Precisely. Precisely. How many people read— there's a book out on that where he brings it out very vividly, *Silence Was a Weapon* by Herrington.³⁷ He pointed that out. It's a very nice book, if you haven't read it. I think it's still out in soft cover. It was about four or five years ago when it came out. It's a damn good book.

And he learned the Vietnamese language, but then he pretended he didn't know it. So he went over there and pretended he didn't know it. And he was sucking up all kinds of information. So he took the object.

He learned the things, though. Very few people knew he knew it, and then he would go in these places made out as a dumb American, and he was listening to them. He was sucking up all kinds of information. So he did a double whammy on them. He said, prove that you're invaluable. It's a very interesting book. He didn't always do that. There's some instances, if you recall, he's playing that kind of a game.

So it's important you understand the culture. We're going to get into that in just a minute. You're onto something. We're going to talk here in just a minute.

[Cross talk]

Audience: That's going to require a long-term investment, I mean— not long-term but handsome investment into the individual—

[Cross talk]

Boyd: Well, goddamn it, don't you want to make that investment? Don't you want to win? Screw it. Oh, no, we're going to do it over the weekend. We're going to win this goddamn war over the weekend.

Audience: I hear you, sir.

Boyd: That's not the American way, is it? Yeah, we've got the weekend to do this. Okay. [slide 92] So looking back now, I'm going back over the guerrilla campaign, sort of revolutionary strategy, you see what's happened. The underlying parts.

Here's what it is. I'm going right back to it. The same thing. [slide 93] The sort of the philosophy they're fighting on. They're right. This in conjunction with this. And you see it has a very high

³⁷ Stuart A. Herrington, *Silence was a Weapon: The Vietnam War in the Villages* (New York, NY: Presidio Press, 1982).

moral content, high moral and mental content. That's what I'm trying to tell you. It's not just arms and legs and bodies going in all directions.

[slide 94] Okay? So the insight associated with that, now we're coming up on the very point that the sergeant made earlier. The point is, when many perceive an illegitimate inequality, that is when people see themselves as exploited and oppressed for the undeserved enrichment and betterment of an elite few. In other words, a lot of people are getting screwed, and the other people are taking care of themselves. Let them eat cake. You got the basis for a revolution or insurrection or guerrilla war. A sufficient number of people, that's what I'm talking about.

That doesn't mean the world's equal. But what I call "illegitimate inequality," not only going to need the illegitimate inequality. You also need support of the people. Otherwise, you can't even play the game. It's impossible.

So it raises a rather important question. In the deepest possible sense, what does it mean to have support of the people? Let's take that on. Now we're coming up with the question and the point that the sergeant made there.

[slide 95] You must build up those implicit connections and bonds with people in the countryside. In other words, you must be able to blend in with the emotional-cultural-intellectual environment of the people until they become one with the people.

You've become part of the seam, so to speak. Why do you want to do that? Let's just stop right there. Why do you want to do that? What are you doing that for? To show I'm a good guy? No. What are you really doing that for?

Audience: [unintelligible]

Boyd: That's right. You're trying to establish the bonds and build up those bonds of trust so you can work with them and they're on your side, not on the other side. That's exactly right.

And if you're standoffish, if you're living in your culture and they're living in theirs, it's never going to happen. You're a stranger and they're going to treat you like a stranger. [30:00] And there's mistrust all the way, period.

And that's why it was so important to have those CAP teams inside the villages, working with the people, building up those bonds, so you can play the game instead of running off doing search and destroy. That's why they should've been in the village instead of attacking the village, like I said in the central scene in that movie *Platoon*.

I looked at that, and I said there it is. That's how we lost— soon as I saw that, I said now I know why we lost. I thought it was beautiful. There's the message why we lost the war. We're attacking the very people we're trying to defend.

So then in this sense, peoples' feelings and thoughts must be guerrilla feelings and thoughts, et cetera, et cetera, et cetera. And those people who read *Silence Was a Weapon*, didn't Herrington

bring that out very clear? I thought he was very clear on that issue. He might not've used exactly these words, but he said that.

The result— incidentally, there's a good book out. I don't think it's any longer in print, but there's a book called *Guerrilla Strategies* by Chaliand.³⁸ If any of you people can get a copy— anybody read Chaliand's book *Guerrilla Strategies*? Really, it's a first-rate book.

Wyly: It's in the library now.

Boyd: Yeah, it's first-rate. So the result, the guerrillas become indistinguishable from the people, while the government is isolating from people. That's exactly what happens then. [slide 96] So the key to success, note that first bullet in the key to success. It's said a special way.

Ability to continuously demonstrate government weakness, and note this: and cause government to alienate itself from the people. We're always saying the people are alienated from the government. That's wrong. The government alienates itself from the people, because of their own incompetence and inability to come to grips with things that they should've come to grips with. They alienate themselves.

I mean, it might help if you added the guerrillas, but nevertheless, they're alienating themselves in a sense. Let's take a look at this. [unintelligible] Mao played the dispersion/concentration game. Cites it all the time. Okay?

[slide 97] So guerrilla results, and this is a very truncated list I've put because there's so goddamn many of them. Start with the American Colonies. Here we fought the red coats. Down here we became the red coats [unintelligible]. See here we fought the red coats. Here we became the red coats.

Okay. Here are the Philippines. Now that's another operation that should've been studied. We started out badly there. We finally figured out the right thing to do, and we were quite successful. There's some good lessons in there. But that happened at the turn of the century. Screw it. It's not important.

South Africa, in a sense I should've probably put that over on this side. Christ, they caused the British all kinds of problems. Not only that, the only way the British could get them to quit is they gave them very favorable terms. Not only that, later on the South Afs got their independence anyway. So in a sense, they were successful, even though they signed the armistice.

Greece in '44, '45. Philippines, this is won by Magsaysay. He came on board and in two years reversed almost a certain defeat into absolute victory. And we had all that information available to us going into Vietnam. See, but he understood how to fight the guerrillas. Remember, he was a guerrilla himself initially. So now he became a guerrilla working for the government. So he turned the tables on them.

³⁸ Gerard Chaliand, ed., *Guerrilla Strategies: An Historical Anthology from the Long March to Afghanistan* (Berkeley, CA: University of California Press, 1982).

Wyly: You know, you really see the same thing in Malaya too. It's misleading. You see all those years there, but it's actually one in the last three or four years. Briggs³⁹ took over and they turned the tables.

Boyd: When Briggs finally got there they started turning it around, yeah. Finally they get their act together. Well, yeah, I showed a lot of years here too, '46 to '54. But it only lasted a couple years.

[Cross talk]

Boyd: Same thing. They finally figured out, hey, there's a way of doing this thing.

Audience: The key for the example of Malaya would be Thailand, was in Southeast Asia, that's the only country the communists completely failed—

Boyd: Say again?

Audience: Thailand, that's the only country the communists failed completely in the last 30 or 40 years [unintelligible].

Boyd: Couldn't pull it off. Couldn't pull it off.

Audience: Malaysia they were quite successful initially.

Boyd: Initially. But then they were—

Audience: [unintelligible].

Boyd: Yeah, now what's happened— see, not only that, the Philippines, Magsaysay turned it all around, but now they've let it all goddamn fester all over again. Now we've got big problems over there again. [35:00] So it's not clear. They still may take over. You know, they blew it. See Marcos and his guys doing the heavy handed stuff, so now it's all started all over again.

And interestingly enough, you should read the— there's an essay, as a matter of fact, in *Guerrilla Strategies*, about from the communist side over there, how they lost the Philippines. The whole thing's coming apart. They don't know where to go. Boy, they're being scarfed up so fast by the government. But they don't know where to go because the government's getting the villages on their side, see. So now they're the ones that are being on the run and don't know where to go. It's an interesting story by one of the losers.

[slide 98] Okay? With that in mind then, let's look at it from a tactical viewpoint here. Remember, in blitzkrieg you're trying to avoid the battle. Guerrillas are trying to avoid the battle.

³⁹ Sir Harold Rawdon Briggs developed a counterinsurgency plan that bore his name as part of the British effort to defeat communist insurgents in Malaya during the Malayan Emergency of the 1950s.

Remember, we say, “if only they’d stand up and fight.” They’re not going to stand up and fight. They’ve got a better game to play, and they’re going to pull us apart.

Instead, you want to penetrate the adversary to subvert, disrupt, or seize those kind of things that allow him to maintain his cohesion. Whether it be psychological, moral bonds, communications, lines of communication, command and supply centers, et cetera. And exploit ambiguity, deception, mobility, violence, and it generates surprise and shock, again, again, and again.

And wipe out those isolated units that you create. And the intent’s very simple. You do this, your intent’s a natural consequence, as a matter of fact. It becomes a natural consequence. Okay? [slide 99] Here. I’ll skip this one. I’ll let you read it on your own. Here I’m just giving you the Israeli example. The Israeli example of disrupting connections and centers that provide cohesion. [unintelligible].

[slide 100] So, key question, why have the blitz and guerrilla tactics been so extraordinarily successful? Let’s take that on. [slide 101] These are the kind of things that are going on. They’re more indistinct. They’re more irregular and quicker in ways we can’t seem to see through, because of the way they operate. They can concentrate or disperse, infiltrate or penetrate. So by operating this way, they’re going to get inside their adversaries’ OODA loops rather than the other way around.

You know, a lot of this, at least in the regular war, was uncovered by some of those people who fought in them. I’m trying to show you in those areas where they have the same ideas. Because guerrilla’s much more powerful, much more subtle social warfare than blitzkrieg.

How many people have read Clausewitz? Anybody here? Anybody read at least book one, chapter one of Clausewitz? Let me make a point with that. In fact, chapter one of book one’s considered the only chapter that was complete. The rest of them he hadn’t revised.

And on the very last page, he says you divide a government up into three components. Excuse me, society into three components. The government, the armed forces, and the people. He says you can do that. The government, the way he said it, was responsible for the policy; the armed forces, the security of the nation; and the people to provide the necessary support.

Let’s think about it. Just hold that. We’re going to appeal that paradigm. Let’s put that in our mind. Now let’s talk about a *coup d’état*. In a *coup d’état*, what are you doing? All you’re doing is you’re working against the regime or the government, not the armed forces or the people.

Now let’s talk about conventional warfare like blitzkrieg. We’re working against the armed forces and also the government, but the people are sort of the background.

Now let’s talk about guerrilla warfare. What are you doing? Now you’re trying to capture the people onto your side. And since that’s a support base for both the army or the military and the government, they’re just useless overhead now. They have nothing to run. Wither away.

Now whether Mao fought it that way or not, he was doing the right thing. Because without the people, you have nothing to run. You have no armed forces to— you have nothing to defend. It withers away.

Not only that, the armed force and the government are made up of the people, so the whole thing just dies away. It crumbles. And that's why I say since it was a whole social fabric, it's a greater totality of war than either blitzkrieg or other kind. Because you've got the whole social fabric of society involved.

Okay? Now let's turn the argument around. **[slide 102]** [40:00] Incidentally, that should be, "defend against or counter." That word "of," my daughter when she typed put an "f" instead of an "r" [unintelligible]. In any case, first the blitz and then the guerrilla. Remember, we showed you this chart earlier on. **[slide 103]** We showed you all this irregular activity. And then a point that I made earlier on, which I called a key point here, **[slide 104]** I might not've said it exactly the same way, but basically the same kind of thing.

Remember, it's difficult to sustain both fast tempo and maintain cohesion of the force to repeatedly and rapidly shift concentration of strength against weakness. So in a sense, a blitzkrieg has a hard time holding itself together too. So you should work on it. You could play a counter-game there. **[slide 105]** So I'll let you read this and then I'll comment on it, see what's going on here.

You see, now since we've built up a repertoire, now we can go through and exploit the ideas we've built up along the way. That's what I'm doing now. We can move more rapidly for exploiting.

[long pause as audience reads slide]

Let's go to the posture. First of all, you want to depend upon your intelligence, your reconnaissance, et cetera. In other words, you're trying to get as much information from many different sources about your enemy.

Then set yourself up in depth. First screen behind there, you want this one, behind that, this one. You want to set yourself up in depth so you can adjust to the circumstance. And note this, deploy, disperse, freely redeploy and re-disperse. Why do you want to redeploy and re-disperse? Anybody?

Audience: Keep them off balance.

Boyd: Because if you keep your units the same thing, they're going to know. You're going to become predictable. So you want to keep changing it, so you give the guy a real— he can't figure out what's going on. In other words, you want to build up his uncertainty so he can't cope with what's going on. That's what you're trying to do.

At the same time, when you do that, though, you want to set up such that you can still easily focus your own main efforts to dig into those thrusts when they're coming into you, preferably from a flank or rear, not head on.

Have reserves. Why do you want strong reserves? I can give you three reasons, two of which Clausewitz had. One, reserves are used for what? To deal with uncertainty, unforeseen events. You don't know exactly what's going to happen, so it gives you a base for dealing with something unpredictable. To adjust to unforeseen events, that's the reserves. That's one reason.

Two, to sustain or prolong operations. Without reserves, you're going to wear your people out. And that's why you want to reconstitute reserves all the time.

And there's a third reason. Clausewitz had two of them, but there's a third reason. Can anybody guess what the third one is?

Audience: To support that area where you would penetrate the weakness.

Boyd: Yeah, that's all right, but I'm going to give a more fundamental reason, a sort of higher-level reason. That's all right. Anybody want to try?

Audience: To exploit success.

Boyd: Yeah, you're sort of right, but what I'm trying to say is, your adversary doesn't know how you're going to use the reserves, so you generate uncertainty in his mind too. Remember, you use the reserves in order to generate uncertainty that is relative to him, also to prolong operations.

Since he doesn't know exactly how you're going to use your reserves, you build up uncertainty in his mind too. So three reasons. For you to deal with it, also to build it up in him. Because it allows, it's very important.

When you look at the German operation, you talk about it all the time. And then, of course, your action. Don't get put in the bag. Start using your screening assets, your recon assets to find out what the hell's going on. You get a picture of what's going on. And then you can start moving your troops into those regions, so you can start hitting them from the local flanks and the rear, start digging into them.

But if they have a lot of forces going through, they're still going to blow through. And that's why you've got the reserves back here. So then you can have an arching swift counterstroke and really cut them up, roll them up in the flank and rear.

In other words, you've got multiple thrusts going into them like they're coming into you. So you're building up their problem also. Then the idea is very simple.

So what are you really doing here? Think about it. What are you really doing here?

Audience: Conducting your own blitz.

Boyd: It's a reverse blitz. That's all. That's right. In fact, that's what Balck said. He said all you're doing is you're just—you don't defend. You counterattack. It's a reverse blitz. It's a reverse blitz. Look at Manstein's operations in *Lost Victories*, [45:00] he's doing a reverse blitz, sucking them in and doing reverse blitzes on them all the time, when he could, when Hitler permitted him.

So was Balck on the Eastern Front. How many people here read *Panzer Battles*? Read about old Balck on the Chir [PH] River and all that area, how he was doing all that stuff outnumbered? So it's sort of reverse blitz.

Notice I didn't say counter blitz. I'm not going to defend. No, let the other guy defend. I'm going to attack. I don't like the word "defend." I like initiative and response. Initiative and response, not defend. Let him defend.

You may be going backwards, I'm not defending. I'm taking initiative so I can bag that son of a bitch. You understand what I'm saying?

Audience: It's like when you box, you see him move and you hit him in the shoulder. And that stops, that negates his punch.

Boyd: Well, you've got thrust and parry. But that's— you're setting up a thrust.

Audience: You're not blocking his punch. You're hitting him in the shoulder that's stopping him.

Boyd: I understand.

Audience: Hit him right where—

Boyd: [slide 106] Okay? Now look at this, blitz and counter blitz, main features. Heavy intelligence and reconnaissance action. Infiltration/penetration or penetration/isolation. You penetrate. You isolate. And then you subdue—

[46:39]

[End of Tape 4, Side 1]

[Begin Tape 4, Side 2]

Boyd: —Generate surprise, mission/*schwerpunkt* philosophy, acceptance of gaps and risk. In fact, they don't regard them as "gaps" and "risks." They regard them as "avenues" and "opportunities." It's only a gap and risk if you're not confident. If you're setting things up, then it's an avenue and opportunity. Let him come through and cut him to ribbons. It is a risk if you think it is a risk. It is a gap if you think it's a gap. But if you think it's an avenue, it's an opportunity to hose the guy. It's a mental, it's a mindset problem. That's why I've got quotes around gaps and risks. Think of gaps as an avenue, and risks as an opportunity.

Echelon-in-depth. Always echelon-in-depth because that gives you a basis to adjust. If you got everybody up forward, they get behind you, and Christ, you lose your whole force. Reserve—keep reconstituting, setting up all the time. Only use what you have to. Keep reconstituting your reserves, because that gives you the basis for adjusting in the future, generating uncertainty in his mind and dealing with uncertainty. And then your positions that we talked about before. Keep changing though, so that the guy you're presenting, a very ambiguous, deceptive, or uncertain picture. He can't understand what you're up to. Makes it very—he doesn't know how to deal with you. See, when a guy can sand-table you, that means you're predictable. You heard [unintelligible]. You want to make it so he can never sand-table you.

[slide 107] Okay, with that in mind, let's go on to look at guerrilla/counter-guerrilla. Some key points here. Remember, they need a cause, support off the people, and a crisis that's really of the government's own making. What I'm saying, crisis and vanguard represent the marriage of instability and initiative that create and expand guerrilla effort. Hence, events occur, if that's that case, those are the root causes, we should be going after that in the counter-guerrilla. That's what we should be going after. Not search and destroy.

[slide 108] Okay, so look at the counter-guerrilla campaign. Pretty busy chart in one chart. That's the kind of things we should have been doing. You might see my bullet down here, I've got an asterisk at the bottom [laughter]. You've got my asterisk. If you can't do it, you better start getting on the other side, otherwise life's going to get goddamn uncomfortable pretty soon. So you better get with the program, is what I'm trying to tell you. Why lose? It's more fun to win, huh?

Note what we're doing. These two bullets are the most important because it really sets up everything else, doesn't it? These two are very important. That's what Magsaysay understood. It sets up everything else, and then you can play the game. If you don't get that right, you don't even get to play a lot of this stuff. That's why the first two are very important. That sets up the rest. Instead, we start operating down at this level and don't pay attention, and then it goes on, and on, and on. We'll never get there. The ideas are actually very simple, but for some reason we resist the goddamn thing. I mean really, the ideas are very simple. Maybe that's why we don't like them. They're not sophisticated enough or something. I don't know.

You can see they're very simple. They're very useful. I have a little note directed to this. **[slide 109]** Remember, we said importance of popular support, and the reason was because that's a lot of basis for your intelligence. In other words, in a sense, when you get the people on your side, the government is blind. Or if you're the government, you can get them sucked away from the guerrillas and the guerrillas will become blind, they don't know what's going on. Just don't think of formal intelligence operations associated with the military. The people are going to give you enormous intelligence, if you exploit it and take advantage of it.

[05:00] In fact, there was an interesting case during World War II, which got me on to this, to see that so beautifully. I saw it. Really get inside and get the *fingerspitzengefühl* for it. I can't remember what book I read it in, but it was very interesting story. It was an historical account of an American advisor. I believe—it might have been a Marine, I'm not sure. But with the Chinese communists, 8th Group Army over in China, either prior or during World War II. I think it was

prior to World War II.

And they were going against the Chinese Nationalists. No, it was against the Japanese at that time. And it's really interesting. So the communist commander said, "I want you to look at my operation and critique it so you can tell me what I'm doing wrong." The advisor has free access, he came back and says, Jesus Christ, you know, no patrols, no recce, you know, that's bullshit. You've got to get those guys out there. And the communist commander just smiled. He says, no we don't need that recce. The guy says why not? He says, we get all the people out there, they're all recce, we know exactly what those other people are doing. That was his intelligence, recce, all the people. He said, I don't have to use my troops for that. We got it all, all those people are doing it. That means they really understood the intelligence/recce operation. They got all kinds of things [unintelligible]. The guy goes, that's really interesting.

Very important. I'm not saying you should dispense with it, but he's trying to make a point, he had that. Okay, let's get into categories of conflict. [slides 110 and 111] We've gone through all this stuff, and now we can start wrapping some things up here. Okay, recall in the beginning, as we've gone through this historical study, we can divide it up three ways. Another three ways you can divide them: attrition warfare, maneuver conflict, and moral. These are not exhaustive examples. It's just some interesting examples. Attrition warfare as practiced by people in maneuver conflict. And note we're talking about attrition warfare as practiced by the Emperor Napoleon and maneuver conflict by the general Bonaparte. Plus Stonewall Jackson, Grant, Hitler's generals, and Americans under Patton and MacArthur. A little differently, Patton primarily in the tactical or operational sense, MacArthur primarily, we'd call it strategic sense, and in that sense they operated at different levels but they were doing it. And then moral conflict, practiced by the Mongols and most guerrilla leaders. And a very few counter-guerrillas. Magsaysay would be one.

Now, let's examine those in order. First, some attrition observations. [slide 112] Firepower as a destructive force is king. You really want to build up the body count and smash all those targets out there. That's king, everything else is subordinate to firepower. Protection. Whether it be trenches, armor, dispersion, it's used to weaken or dilute the effects of enemy fire power. Mobility—to bring firepower to bear or evade enemy firepower. Measures of success are now body count and targets destroyed. Not only that, pretty soon you start getting interested in terrain objectives. Violating Napoleon's dictum, destroy enemy army. You want to take out the force. Okay, if we pull all that together, you can get an idea of essence of attrition warfare. [slide 113]

Destructive force. Whether it be weapons, mechanical, chemical, et cetera. To kill, maim, or otherwise generate widespread destruction. Protection. To minimize the enemy doing the same thing to you. And mobility, either to bring it to bear or move away from your adversaries. The pay-off: break the enemy's will to resist. Remember, those have been used words. Seize and hold terrain. And compel enemy to surrender and sue for peace. We haven't said that many times, you know, they've got to show up. If they don't show up, it's not so good. What kind of image do you get out of that, anybody?

Audience: Futile. Sledgehammer.

Boyd: That's not a bad one.

Audience: Self-defeating.

Boyd: That's another one. But what I'm trying to tell you— if you look at this, there's not much moral or mental content. It's high physical content. Remember, we talked about the different levels, moral, mental, and physical? This just has a physical dimension. You're not playing the moral and mental. In fact, you might be playing moral and mental dimension against yourself by doing that. You're really— your emphasis on the physical content. You're not playing the moral or mental content.

Okay, now let's go on to maneuver. [slide 114] Observations regarding maneuver. We do these kinds of things, ambiguity, deception, novelty, mobility, et cetera, to generate surprise and shock. Fire and movement used in combination. People think maneuver's just movement. No. It's fire and movement, using it in combination. Like *cheng/chi*. Tie up, divert, or drain away, the idea is to generate, expose his vulnerabilities and get at those weaknesses. Okay?

[10:00] The indication of success is no longer quantitative but qualitative. Any phenomena that suggests inability to adapt to change. In fact, Guderian, going through France, he said, now's the time to go for it. The French army is falling apart. Tells his commanders, just go for it. In other words, you just sensed it. Just like you can sense in a basketball game, when the other team is falling apart and the other guy is scoring. What's the first thing the guys do? Tim; boy, we got to get our act back together. You can't measure that.

Okay, so then, if we paste all that together, here's the essence of that. [slide 115] You want to generate alternative or competing events in a guy's mind, as many as possible. He can't figure out what the hell is going on. That's ambiguity, because they may or may not be. You're trying to generate is mental confusion and disorder so he can't cope with unfolding circumstances. That's what ambiguity is. Deception, an impression of events as they are not. Really a neat picture, only it's a wrong picture of what's going on. Let's juxtapose them. If you look at ambiguity, it's easier to generate than deception. In other words, you can generate confusion and disorder more rapidly than you generate an order, even though it's a false order. It takes longer to generate a deception over ambiguity.

Ambiguity is also less risky than a deception. Less risky. That doesn't mean you shouldn't have a deception. In Normandy— the Normandy case is a good example, because if you can realize it, you get enormous leverage out of deception. But remember, it's riskier and it takes longer. We really didn't understand that during World War II. In fact, I don't think many of us understand it to this day.

Let me give you an example. Operation TORCH, the invasion of North Africa. We set up a big deception campaign. We virtually got on scot-free, but hit some problems later on after we drive in on it. We got in there, got a free ride in, in a sense. But then after they looked at it, they ran a critique on it, and the deception masters had to admit that the deception campaign didn't succeed. Instead, they said it was a success of security. Well, when you read into it— Christ, the Germans didn't know what we were going to do. They had all— we created all kinds of impressions, so it

was a success of ambiguity. That's what it was. And Normandy is the opposite case. We had a lot of time to set that thing up. Lots of time.

So, we created in the German mindset the idea that we were going to come in the Pas-de-Calais area, and even after we landed at Normandy, we kept up the deception, so they think it was only a secondary effort. And they still had that for over thirty days in their mind, while our whole effort was in Normandy. It was Normandy. Which is an extraordinary deception. In other words, they didn't stop it once we got there, they kept going all the time, thinking we were still going to land.

And to show you we didn't understand it, once again in Italy, they said how come we couldn't get a deception to work there? We didn't have time. Christ, we were exploiting an existing situation after Sicily, going to Italy, and that's the advantage of an ambiguity. You don't need a lot of time. Deception takes a lot of time to set up.

And that's what blitzkrieg does. Once you may have an initial deception, but once you start riding, you're riding on what? You're riding on ambiguity, not on deception. You can't stop the operations to set up a new deception. You ride on ambiguity when you're exploiting an existing situation.

And another thing, novelty. That's one thing technology gives you, are new ideas. In other words, create situations the guy's never been aware of before. He didn't know what to do. He's never experienced it before. Whether it's technology, whether you've got a new wrinkle in how to set up an operation, or whatever. You face a novel situation, can't cope.

And then fast transient maneuvers. Not only rapid, but also irregular and rapid, so he can't get an image of what's going on. And your effort, directly against those features that permit him to retain his organic wholeness.

So if you pull all those together, what's your payoff? You're deliberately trying to generate a disorientation in his mind, mismatch between what he anticipates and that which he must react to, to survive. A mismatch. Now if you think about that, you can redefine surprise. Surprise is nothing more than a disorientation. It doesn't say that, but that's what it is. You can get it either from ambiguity, deception, or any combination. It may take a long period of time, but generally it's a disorientation generated by perceiving an extreme change. It doesn't mean it happened over a short period of time, but you perceived it. All of a sudden you say, my God, what happened? It may have been working itself out for a long, or it may be just speed.

So, surprise is nothing more than a form of disorientation. Likewise, shock, except in this case shock is so awesome, it's so paralyzing, Christ, you don't know what to do. You go into a state of shock. I look at shock as nothing more than a hard surprise. You can look at surprise as a soft shock. They're both forms of disorientation.

[15:00] And disruption, the state of being split apart, broken up, or torn asunder. So all these things, you're trying to realize this kind of an aim. But now we've done something interesting here. Since we've defined surprise and shock as a form of disorientation, why not just remove

them from the board and look at disorientation and disruption? Before we do that, let's look at it a little bit more carefully. We may want to do it, but let's look at it a little bit more carefully.

[slide 116] When you begin to examine it—and that's what this note's directed to here—you can also say, surprise and shock also can be represented as an overload beyond one's immediate ability to respond or adapt. In other words, they can't respond or adapt because of that sense of surprise, or shock, or both.

So, what you really want to do is put them in an overload condition, so they can't respond. So just take out surprise and shock on the next chart, and substitute overload. **[slide 117]** Not that we don't want to surprise and shock them. But another way of looking at it. The right and left side is still the same. I just adjusted the right side. So I get disorientation, disruption and overload. That's what you're trying to do. Disorient the guy, disrupt the guy and overload him. Then you realize this aim, or equivalently state it that way. So maneuver warfare is just not a bunch of guys going down the highway at a high speed. That's what I'm trying to tell you. Not just a bunch of guys going down a highway at high speed. There's movement.

So if you look at this, the content of this has a heavy, what? Mental content. Whereas attrition has a heavy, what? Physical content. So we're back to the moral, mental and physical. The attrition is related primarily to the physical and the maneuver related to the mental. So you can leverage that guy. Remember what I said, terrain doesn't fight wars, machines don't fight wars, people do it and they use their minds. That's exactly what we're working on in here. So don't let yourself be sucked into the thing where all maneuver warfare is a bunch of troops going at a high speed down some highway, or across some plain in a tank or something like that, or a bunch of tanks. Okay? It's a little bit more sophisticated, if you really want to think about it. Okay?

With that in mind, let's look at the moral, some moral issues here. **[slide 118]** And I got this from Balck, very good. And what he makes very clear, this theme. No fixed recipe for organization, communication, tactics, and leadership. Variety. Remember, you want to remain unpredictable and he makes that very clear. Wide freedom for subordinates to exercise imagination, yet harmonize within intent of superior commanders. Brings that over. Heavy reliance upon moral, instead of material superiority, as basis for cohesion and ultimate success. And what he says is that commanders must create a bond and breadth of experience based upon trust, not mistrust. Most important thing you can do is build up bonds of trust between the commander and subordinates, or among the subordinates themselves. Because when you do that, then you've got an organic whole. And if you don't do it, you don't have it. And when the squeeze comes on, you're going to come apart.

Well, how is this atmosphere achieved? I only know one way, by example. The leaders have to set the example. If they're going to be a leader, they're going to have to set the example. If they don't want to set the example, kick the bastards out. Or at least don't put them in a situation that goddamn, is going to pull you apart. You have to set the example if you want to run the show.

If you want to be good, and you like to win, which I sort of, I think that's more attractive than losing. I don't know why I have that funny feeling. It's a lot more fun winning than losing. So that's the only way. You have to have the physical energy, mental agility, and moral authority. Which leads back to the trust. When it's mistrust, you've lost your moral authority, there's none

there.

Remember a few years back, they wanted to have morale officers. There's only one guy responsible for morale, and who's that?

Audience: The commander.

Boyd: Goddamn right. And if you have to have a morale officer, the commander just said he doesn't know what the hell he's doing. That's exactly right.

So what is the price? There really isn't a price, got to use those words. Courage to share danger and discomfort at the front. You've got to be able to share that with your people. To understand what they're going up, also they respect you if you're willing to do that, and they understand you're out there playing the game, too. Also to get a feeling for what the hell is going on.

Willingness to support and promote unconventional or difficult subordinates that accept danger, demonstrate initiative, take risk, come up with new ideas, et cetera, et cetera. [20:00] In fact, in an old German equivalent to our OER—Officer Effectiveness Report—they had a code word in there, they put in there when they wanted a guy to get promoted. This guy is a “difficult subordinate.” That meant promote early. In our system, it's “two.” Because they recognize when you get this kind of guy with these kinds of characteristics, he's going to be difficult because the system is not used to it. He's trying to change ways. To make them better. He's a pain in the ass to a lot of people. Because they get nice and comfortable doing things the same old way. They've got all these preconceptions in their mind. They're very comfortable with the way the world's going on. And so, this guy comes along, like, son of a bitch, get rid of him. Big mistake. Huge mistake.

It's going to give your organization vitality. Now, you know, if he goes too far and gets a little bit obstreperous, then you'll have to hold him down. In the meantime, you're going to have to give him a little leash, give him some headway. Be possessed of vitality. That's your ability to thrive and grow. Win rather than lose. Be adaptable rather than rigid. Dedication and resolve, to face up—face up and master uncomfortable circumstances that fly in the face of the so-called traditional solution.

Now if you can do these things, the benefit is you'll have internal simplicity that permits rapid adaptability, because you'll have an organic whole. You can make those adjustments. If you don't, you're going to have to have detailed orders, move like molasses in January. Everybody going off in the wrong direction and you're still trying to control them. The one thing you don't have is the very thing you want, control.

See, those bonds of trust, that common outlook, that's where your control exists. Not through having a guy slavishly do this, or do that, or do this. Treating him like an automaton or a robot. In fact, some of the latest management guys, they say your control exists—you read some of the management yourself, some I'm going to hit you with it: control exists through what?

Audience: Excellence.

Boyd: Through what? It's through your value system. Your systems of values are the things that are important. That's through your control exists. And if you've got that common theme, you've got control. And our management people are just beginning to wake up to that, some of them. I won't say all of them. Go ahead.

Audience: We have a guerrilla war to fight with the American people on that issue.

Boyd: A friendly guerrilla war.

Audience: Well, a friendly guerrilla war.

Boyd: I understand what you're saying, but we don't want to make it hostile. It's a friendly guerrilla war. I understand what you're saying.

Audience: It's one that has to be not fought, or else we cannot, we can't act if—

Boyd: No problem. But we got to inculcate that, but it's what I call a friendly guerrilla war. We don't want to make enemies of them, but we're going to say hey, there's a game that can be played here and we're all part of the team. I mean, I think that's what you're suggesting, right? Did I misread you? I hope I didn't misread you. Maybe I did.

Audience: No, I don't think so. The President was recently criticized, President Reagan, for having that style of management, and that was the same style of management. In other words, he delegated, he had a value system [unintelligible].

Boyd: As long as you hold the value system.

Audience: When his subordinates, when one of his difficult subordinates got difficult, the American people then have to understand, well, this is going to happen, he's now going to take that under control.

Boyd: Reagan has been admired for defending his subordinates. He might have made some mistakes, but one thing he's been admired for is generally for defending his subordinates. Sometimes he might have gone too far, but if the guy's a bastard and he's violating— see, if a guy violates those value systems too, you know, he's earned discipline then, you know, stringent measures against him, because you've given him an opportunity to act in that value system. You give him freedom of action. If he goes against that, you know, you can't give him a free load, because other people are going to do it and the whole thing comes apart.

Audience: The guerrilla war you're talking about, is the press on the side of, you don't know what your people are doing? The press should take the side of, well, nobody can know what everybody's doing all the time, all they're doing is exercising the—

Boyd: But then we have to educate the press. Say, look, do you know all of your editors? I can hit the press back. Oh, you're one of these goddamned geniuses. You know exactly everything that's going on in your paper, huh? You do know that, Mr. Reporter? Of course, he has to say no. Then I say, why do you expect me to then? You know, put him on the goddamn defense and

stick it up their rear. They don't know either.

Audience: Maybe I took it out of context when you said impose the value systems. I don't think— it's fruitless. You don't want to impose values. That's a relative note of importance to that individual, like you were alluding to earlier.

[Cross talk]

Boyd: You don't. You don't want to impose it, but you want to show them a set of values that's going to be beneficial to them as well as yourself in that. That's what's got to be done. In other words, they got to readily accept those values. They got to be able to inculcate it within themselves, and that can be done.

Audience: [25:00] Well, a friendly guerrilla war because—

Boyd: That's why I call a friendly guerrilla war—

Audience: —we all have those values. It's just— it's sort of like the same issue with Wright. When we accept them, when it's going our way, we notice [unintelligible].

Boyd: That's right. But see, there's a lot of people there, that's what I'm trying to say. So if you wind up where a little group gets the benefit and everybody else is getting screwed, they've got to go. You can't do that. You're going to pull the organization apart. That's like having cliques. That's what hurts organizations. You get a little clique inside, and they're taking care of themselves and opposing everybody else, but trying to make it look otherwise. We've seen that, and I've seen it in other organizations that fail. Okay?

[slide 119] So here's the book that I read shortly after I talked to Balck, and I got the thing for 25 cents [unintelligible] tremendous buy. I just ran into it in one of the bookstores and happened to think, hey, this is very interesting. And these pages particularly got it, by Cyril Falls. And the underlines are mine and I'll let you read it, but note what he's talking about. If you look at all three pages, they're all related, even though they're— one case, two cases they're talking, the first two cases are [pages] 124 and 161, accounts of World War I, 165 about the German Army in World War II.

And he's hitting on a moral issue. In this particular case up here, these first two, you know they're experiencing things they've never experienced before, and they're having a hard time coming to grips with them. Now I'm going to define "moral" differently in my view, when we get around and I give you my strategy brief. [unintelligible] There's another way of looking at "moral" that I think is more profound and more powerful, but this is a way of looking at it, and it's okay. There's more than one way to skin a cat. Okay?

Now, thinking about that, let's see if we can make some sense of all this. [slide 120] So, what we've got here are some insights regarding Falls' statement and Balck's ideas. Now Falls' comments, we know, you take all this stuff, and at a quick glance at these words and phrases are all directly related to one another, all those phrases that I underlined. Even though they're from

different times, they're all pretty much directly related to one another. That's one point.

Going further, we can see that his comments, what do they say? The moral effects in some sense are related to the menace posed by the zeppelins and dive-bombers, and the uncertainty associated with not knowing what to expect or how to deal with it. At least that's the message he's bringing out to you. Whether you like it or not, that's the message. So put simply, from that viewpoint, moral effects are related to menace and uncertainty. That's the first thing.

So I say for a first cut, this suggests that moral strength represents mental capacity to overcome menace and uncertainty. But we're left a little bit uneasy with that. On the other hand, it seems to leave out something humans either need or must overcome for collective moral strength. In other words, I'm bringing in the organic whole.

So we've got to remember, going back, and looking at some of, remember those guerrilla commanders, they're trying to stress propaganda, civil disorder, they're trying to generate mistrust so they can pull the government down and then build up bonds of trust for their own, for the people they're trying to swing over to their side. And Balck emphasized the importance of trust, not mistrust. That being the case, then we're getting on to something. Recognizing that these guys really know how to operate in these environments, suggests moral strength in some sense represents mental capacity to overcome menace, uncertainty, and mistrust. Overcome them, then you've got the moral strength. That ability to counter that mistrust, trust the men.

That being the case, we can start making some definitions here again. **[slide 121]** Start peeling some ideas back to Clausewitz then. Remember, we talked about things that bring out fear, anxiety, and alienation or their counterweights, courage, confidence, and esprit. We've already said what moral strength is. Moral victory is the triumph of courage, confidence, and esprit over fear, anxiety, and alienation, when confronted by menace, uncertainty, and mistrust. In other words, you're bringing out those positive virtues, rather than what we call those more negative qualities. You know, we have them, as human beings, we have these things. Fear, anxiety—what you want to do is be able to bring these, well these up over these, and therefore you're going to deal with that menace, uncertainty, and mistrust. That's what you want to be able to deal with then. Moral defeat, of course, is just the opposite. In that case, fear, anxiety, and alienation, they well up, the others suppress [unintelligible]. And moral values, those that permit one to carry on in the face of that. Moral authority. That person or body that permits you to deal with that.

So now by pulling it apart and bringing it all back together again, we come up with the essence of moral conflict. **[slide 122]** So we're going to create and exploit these: [30:00] menace, uncertainty, mistrust. Here's the idea: surface fear, anxiety, and alienation in order to generate many non-cooperative centers of gravity, pull the guy apart. And the aim is very simple. Destroy those moral bonds that permit an organic whole to exist. It can't function. Does that chart bother anybody? It should. It bothers me. I'm trying to get at something here, and then in this follow-on chart. **[slide 123]** If you think about that a little bit, it's all one side, is what I'm doing here. I'm saying that the essence of moral conflict, as presented in the previous chart, it tends to take the negative or dark side. So let's see if we can bring out the positive side. In other words, if courage, confidence, and esprit represent the positive counterweights to fear, anxiety, and alienation, what

are the positive counterweights to menace, uncertainty, and mistrust? So let's see if we can kind of come to grips with the thing.

[slide 124] And we begin to look at it, you begin to see something here. You work it backwards and begin to say, okay, presence of mistrust implies there's a rupture or loosening of human bonds, so you have to build up harmony in a group in order to build up that trust. So that seems to be a counterweight. In dealing with uncertainty, you can't say we're going to have certainty. All you have to do is you have to be adaptable, that's the only way you can deal with uncertainty. You have to be adaptable, build adaptability and flexibility into the organization to deal with it. Life is inherently uncertain. Don't say, well, we're just going to have certainty. That's bullshit. You're not going to get it. You may think you are, but you aren't.

And with respect to menace, the only way you can deal with that, you're going to have to take the initiative. You can't sit there. So if you pull all that together, then we can reconstruct that previous chart, the essence, we'll leave the left side the same, and we have the negative factors as well as their counterweights. That's a way of dealing with it.

[slide 125] I haven't changed the left side, just called them "negative factors" and "counterweights." Initiative, internal drive to think and act. Adaptability. Harmony. Then you've got a negative aim as well as a positive aim, and now you can see it from both sides of the argument. We want to get the negative on our adversary and we want the positive on our side, obviously. That's what—the guerrillas where they see it, that's what instinctively they're doing all the time. Trying to build up the negative atmosphere on their adversary and trying to build up a positive atmosphere in their system. Remember what Napoleon said: the moral is to the physical as three to one. They understand that, whether they know those numbers or not, and they're using that in a very powerful way.

Okay, it's 10:00 o'clock. So I think we ought to stop it tonight. I guess we're going to have to get together and take the synthesis later on, we spent a lot of time on it. The rest of the stuff goes fast if we can set that up, Mike, if we want to set that up, because I'm going to be here for a while.

Wyly: Okay.

Boyd: So we've done the hard part, and the rest of it goes very rapidly. And so all we have to do now is do the synthesis, the application, and the wrap-up. And that goes very rapidly. Because now what I'm going to do, I'm going to pull all these things we've looked at, we're going to pull it all together. What are we really talking about?

Any questions before we leave tonight? We took a lot of time, we made those digressions, but I think they're important because we're trying to address certain issues. People want to get to it, and I feel that, okay, if we want to get to it, we're going to get to it. It takes time.

Wyly: You're suggesting we do it next week sometime. I don't see how we can do it this week. [cross talk] Nobody probably wants to, so we'll set it up.

Boyd: If it's okay with you. So we can get the synthesis and the wrap-up.

[multiple audience members talking over each other]

Audience: One of your wrap-ups has to be how we adapt this to a nine-month curriculum for a 35-year-old major.

Audience: It's bigger than that, because we're talking about forged leadership from the corporal to general. So the whole profession—

Boyd: So you want the lowest guy all the way up to the commanding general to have these attitudes.

Audience: Corporal to general. We've got to cover the whole spectrum.

Boyd: They're all part of the team.

Audience: Yes, sir. It's a long term— we do a pretty good job— private to generally, really—

Boyd: Not corporal, private. I want to go through private all the way up to the commandant.

[Cross talk]

Audience: We do a great job on the corporal and below level. It's when we get to our lieutenants that we don't trust them and we don't give them the leeway for initiative. In boot camp, they get the esprit, the trust, the initiative—

Boyd: You need to educate all your people, not just a piece of them. To play the game. Because you really want to build up this whole organic philosophy, so you can operate as a family. Just like a family— really like a family. We say we operate like a family, but a lot of it is hype, it's not quite there. But you really want to operate like a family, and you're a very large family. But then you want the whole family's got the *fingerspitzengefühl*. You understand what I'm saying? You want to get them all that *fingerspitzengefühl*.

Audience: But on a larger scale than what we were talking about, we're talking about this idea of warfighting, [35:00] the concept and repeated application in peacetime so it becomes the fingertip, inherent. We're missing the procedures to do that in wartime, but in peacetime, here's the idea. To repeatedly do it, to practice in peacetime what we want to do in wartime. The trust. What's missing from my mind are the education and training tools to take this—

Boyd: Oh yeah, and we're going to have to develop that so you can get that, so you can inculcate it, and it becomes a natural part of the whole system then, that's what you're really saying. You want to make it very natural. Not some foreign substance.

Wyly: We were talking about, I just use the Germans as an example, here you have a society, that for a number of reasons, placed a high value on education. And we don't do that. And I think therein lies the difficulty. If education comes naturally, and it's something we know how to do, that would make the job a little bit easier. But it's not, it's not. We give out the quotas and

sometimes it's not through a whole lot of education.

Boyd: [laughter] Yeah, but that's done all over. It's unfortunate. You know, that's why the sergeant's comments are quite applicable. The military's not the only one that has this problem. You look at industry, industry's got some horrible problems.

Wyly: Absolutely. It's a society-wide problem.

Boyd: We've got a big problem. Somehow we got to pull it together. We're having problems around the world—

Wyly: I was saying to this gentleman here during the break, I think maybe the Marine Corps has a better chance of solving that problem than any other segment of society. I just think maybe that, idealistically I think that. I see we've got some control over our future. The other services are too big, the rest of the society is too chaotic.

Boyd: In a sense, somebody going to have to set the example. If somebody doesn't set the example, the rest aren't going to do it anyway.

Audience: Sir, I'm trying to think of an example where a military organization could function, at least for some period of time, by using the menace and uncertainty and mistrust. Can that be done? I guess one example, and I know it's not a good example, maybe Shaka Zulu, and the way he brought the Zulu tribes together by just killing anybody that screwed up, and driving them to the point of utter fear and exhaustion. Yeah, he was successful against the British for quite a few years until he went bonkers, and his brother-in-law put a spear through him.

Boyd: Well, if he's done that, what kind of a culture do you have in order to do that in, and did we misread that? Is that what we're saying, because he's the enemy, and he's a bad guy, so we want to constitute all evil in him and we want to constitute all the good in ourselves. I'm very worried about that, having seen that happen before. Since he's the enemy, goddammit, he's all evil. He's done everything wrong and we're pure and all that.

Audience: Well, the Soviets and the KGB and the way Stalin—

Boyd: I'm not saying he didn't do that. Well, Stalin was a son of a bitch. Yet we ascribed to him during World War II, we'd call him "Uncle Joe" and all that stuff. In the meantime, Christ, he claimed he made Hitler look like a piker. He cleaned out twenty million people. Hitler only pumped out only around, other than the war, about six million or so.

Audience: So how can a military function based on, at least in part, menace and uncertainty and mistrust? What you're telling us tonight, it can't be done—

Boyd: Remember— wait a minute, I'm going to come back to that. Remember, when Hitler invaded Russia, what happened then? Remember, they wanted to be on Hitler's side. They all went against Stalin because of that, and then Hitler became, behaved even worse than Stalin did, so therefore it became a Great Patriotic War. You go read the history. They were signing up— so what happened, they said Christ, this guy's even more menacing than Stalin, we'll keep Uncle

Joe, at least he's one of us. You read that. For the early part of those campaigns, they were welcoming the German invaders. Finally, we're going to get rid of this goddamned yoke we've had over our heads.

You've got to be very careful when you examine them. That's what I'm saying. Don't look at it, don't isolate them in context, understand the culture and try to examine it from a total situation standpoint. And so, maybe, what's his name, Shaka, I haven't studied the Zulu but maybe, you know, remember, you can't just look at the Zulu, you got to look at the British, how were the British behaving toward them, and even though Shaka's ideas and actions might seem stringent, maybe what the British were doing to them were even more uncomfortable than what he was doing. Therefore, they could accept his measures, because it was at least for the Zulus rather than for some foreign interloper, so to speak. I mean, I don't know but I would look at that carefully. [40:00] I can't answer that, because I'm totally unfamiliar with that. Any other questions?

Audience: Colonel Wyly, is there any other option besides next week? None of us will be here—

Wyly: Well, it depends on how long Colonel Boyd's going to be here. I don't think you've really decided on when you're going back. I see Friday as an option, I think normally—

Boyd: What about tomorrow night?

Wyly: We may not be back.

Boyd: You think the commandant'll keep us there?

Wyly: I don't know, but sometimes he gets wound up—

Boyd: He's the commandant. If he wants us to stay, we stay.

Wyly: I just hate to make a commitment for tomorrow night, with that in mind. I really hate to do it for tomorrow night.

Audience: Sir, how long will it take for the wrap-up?

Boyd: What, this here? Jesus, you've got me very nervous. I was supposed to do this in two nights. I'm afraid to make a prediction about that. Normally the wrap-up would take about 45 minutes, but I'm afraid to say that. I think we'd better allow for two hours.

[non-pertinent cross talk about meeting the next night]

[41:56]

[End of Tape 4, Side 2]

[Begin Tape 5, Side 1]

Boyd: It can have a protracted character, on the other hand, it may not be. Now one of the reasons why they say that is, well, look at the Philippines. I already put the dates up there, 1946

to 1954, and as the gentleman back there pointed out, we had the Malayan campaign. What was that? Eight or ten years also, in Malaya. But really, they finally figured out what to do and the last couple of years, they went pretty good. It was because the dummies in the beginning couldn't figure out what the hell to do. Magsaysay came on board, he said, "I got the picture." He cleaned it up real fast. And they were on the verge of defeat, too. Of course, it's not so cleaned up right now, it was sort of a temporary respite, because now they're back in trouble, again.

Audience: But you know, two years of [unintelligible] of conflict, for two years, that could be a protracted war for us, based on how the public views it.

Boyd: You trumped me. I said, you trumped me. And I agree with you. When I say, you trumped me, in a sense you're right. In other words, our "two-year war" that's not— that's too long.

Audience: So how is our military [unintelligible]?

Boyd: But see—but that's—whose fault is that? You made a good point there. Whose fault is that if they think it's too long? Whose fault is that?

Audience: United States government.

Boyd: Goddamn right, it's our fault. Whether we're in uniform, or in other parts of the government, to make sure that people understand that you can't do it any other way. So the fact that we let them have that perception, it's the government's fault. If they look in the mirror, he's the son of the bitch. Government guy looking in the mirror, he should look, there's the son of the bitch that did it, and he's the one. That's him. See, because I think you could put out a compelling message on that. Of course, you got to know what the message is, how to handle it and all that stuff. But you don't know what you're doing, you can't put out the message.

Audience: What's the message?

Boyd: Well, what's at stake in this whole thing? And the fact you just can't run a goddamn— a thousand-tank operation through some jungle somewhere, a blitzkrieg operation, or leave the perception in their mind that it's strictly going to be a high-intensity conflict like we had over in Europe, and we're going to win the goddamn thing. European scenario.

Audience: I guess, my question was more, I understand that. But getting the American people, I mean, just— I think we're still singing from Vietnam and anything that's more than a weekend long like Lebanon, when you're in an op before the press can still be—

Boyd: Why? Why?

Audience: Just because of how—

Boyd: Because we haven't got the message out, and I blame it on ourselves.

Audience: Well, I say, this is—

Boyd: You got to blame it on yourself. If you don't do anything, what? If you don't blame it on yourself, you're not going to change. It's important you blame it on yourself because you say, "Goddamn, we're dummies. Let's get the damn thing straightened out." It forces you to do things that you wouldn't otherwise do, and come to grips with the problem.

Audience: I think we realize that—

Boyd: See, now what you're doing is, you're making yourself come to grips with the problem. That's my opinion on it.

Wyly: I'd take it a step further. It's not just that we have not gotten the message out. That thinking that you just described, that we could take a bunch of tanks down there and roll them through Nicaragua, or wherever, and drop a lot of bombs, and then when the war— I find that mentality still exists within the military at very senior levels. At very senior levels. So not only have we not gotten the message out, but we haven't learned how to do it.

Boyd: Not only haven't you gotten the message out, you haven't even gotten it in within the services. Not only out, but not even in.

Audience: Well, you could win the war in Nicaragua in a couple of weeks, with a bunch of tanks to show intent. That's not what the problem is. The problem is, what's involved in national level that'll sound good.

Wyly: Yeah, Nicaragua is the wrong—

[Cross talk]

Boyd: Nicaragua's the wrong one. Yeah. You're right.

Audience: So the point is, that we really need to explain to people, after we've learned it ourselves, is that we're talking ten, twenty years. We started dealing with the Salvadorians, sir, we wanted to hear a three-year war, they said ten. Well, now we've been committed since '80, basically, and it's almost ten, and Duarte⁴⁰ gets on TV three months ago and says, "Well, thirty-five, forty." Really, it's a permanent commitment. We haven't convinced ourselves that, but if we ever do that—

Boyd: But if you have a permanent commitment, you also got to know how you're committing yourself. And because we didn't know how to commit ourselves, and our leaders in many areas—maybe some of them were malicious, but many of them weren't—in a sense, they were lying to the American people. Sometimes they didn't even know they were lying, and their guys looked at them, and they got madder than hell.

[multiple audience members begin talking over each other]

⁴⁰ Jose Duarte was the president of El Salvador from 1984-1988, at the height of a civil war against communist insurgents. He received both overt and covert financial and military assistance from the United States as part of a larger effort to push back communist influence in central America.

Audience: They were two factions, essentially. One that wanted to put U.S. guys on the ground, and one that wanted to do what we're doing. Show up to this country, within the limited context of their capabilities. They still think that helicopters' recon is the answer. The point is, that I don't think you'll ever sell that you're, you know, politics being what they are. You'll never sell the American public on a forty or fifty-year commitment at X millions of dollars, that they don't understand.

Audience: Depends on the level of how you approach it.

Boyd: That's right.

Audience: What does that commitment entail? If it means putting in some advisors, as we did in Vietnam initially, they might buy off on that if you really hit them with the rationale for it.

Audience: But it's much more than that now—

Audience: And convince them of it.

Audience: It's equipping them, it's arming them, and it's to this tune of seventy, one hundred million dollars a year.

Audience: [05:00] Well, what was the initial—

[Cross talk]

Audience: No. I don't agree with it.

Audience: What was the initial cost of Vietnam, putting in the gaps? What did that cost us?

Audience: I don't know. But what I'm saying is, you're not going to put U.S. guys on the ground and you advise them—places like Salvador, or [unintelligible], and you have to equip them, and you're going to have to continue to arm and supply them. That costs a lot of money.

Audience: Well, if we're not willing to do that, we'll lose it. The military can sell that message.

Audience: There you go.

Boyd: Let's kick off and get back to that. I'll get back to that. I got some things that you mentioned, I'll get back to it. Let's get back to [unintelligible] otherwise, we're going to miss something. Okay. We're up to the synthesis now. **[slide 126]** What, basically, what I want to do is, we looked at all these various wars, and conflicts, and the various ways we approach it. Tactically, strategically, grand tactically, and all that. And we've pulled things apart and put them back together. Now what I want to do is go into a super synthesis. In other words, we're going to take advantage of all that information we've been gathering, and we're going to start stuffing it together in terms of a, sort of a conceptual way we can look at this thing. And remember in the beginning, I made a promise to you. I said, not only are we going to look at categories of conflict, we're going to look at the tactics, strategies, and grand strategies. And that's what we're going to get at right here in the synthesis. Okay.

So first of all, one of the things I said we wanted to look at was the pattern of operation. [slide 127] The pattern for a successful operation. First of all, you've got to have some kind of a goal in mind. Where in the hell you're going? Then you're going to have to have some kind of a plan to feed that goal. And some kind of action to feed the plan, and support. And a command structure to glue the whole thing together. Without that, you don't glue it together, nothing's going to happen. So you can kind of think of it that way.

[slide 128] So knowing that, and thinking about what we've been through here, some words you could put to it in a very general sense, the goal would—in a sense, what you're trying to do, is you're trying to diminish your adversary's freedom of action. Cut his ability down to do the kind of things that he wants to do, at the same time, improve your ability or improve your freedom of action. As a result, you can shape and cope with events and efforts as they unfold. He will be unable to stay up with you. That's sort of your goal. You want to lay that on, in a very general sense. I don't want to make this specific now. We're not talking about going to Nicaragua, or Chile, or wherever you're going. Or even in our own country. We're just saying, we want a general idea. What are we really trying to achieve here? In a very general sense. Remember, I want to keep it very general now.

Okay, knowing that, we say, let's look at our plan. Straight Sun Tzu. You got to know your enemy. Remember he said, "Well, you got to know yourself." Strength, weakness, maneuvers, intentions. Remember what I said Palmer said, and what Krepinevich, we never knew our enemy over there. We got to reach inside his system. And if you don't reach inside, how are you going to exploit weakness? It's kind of tough. Or expose vulnerability? Play the weakness vis-a-vis the vulnerability. It's going to get very tough.

And then apply a variety of measures. Menace, uncertainty, and mistrust. We put in the moral dimensions, as well as ambiguity, deception, and novelty. That way, you have a basis for not only breaking down his ties, but also disorienting or twisting his mental images. So he can't even cope with the world, with that environment you're exposing him to. Therefore, in a sense, we magnify our presence and activities. In other words, Christ, they think we're everywhere but nowhere, like the Mongols. And like what Liddell Hart discusses.

And then, you want to select an initiative or response that is least expected. Some people say unexpected. Well, you've got to expect his best. But at least, least expected, so he can't cope with it. And not only a physical sense, we're talking about moral and mental sense as well. Remember, we're always keeping the moral, mental, and physical in mind.

Then you want to set up your focus of main effort, or if you want to call it your focus of effort, together with your other related effort, and pursue those directions that permit—note what I'm saying here—permit many happenings. Because you only have one thing and that gets blocked, the game's over. You want to have many things, because what you're doing, you're trying to put him in a position where he can't keep up with the activity; he can't discern what's going on. Also, many branches. It doesn't mean you're going to pursue them all, but what you're doing, you're giving yourself the opportunity to lever him on your terms, keep the initiative. And threaten alternative objectives. Remember, I said Liddell Hart had brought that up. In other

words, have more than one objective so you can shift gears and always keep him rolling under your punch. Okay?

Then move along those paths. In fact, what you do by doing that, you're really setting up the paths of least resistance. By setting it up, maybe getting him to reveal himself, so now you can roll through those paths of least resistance. Morally, mentally, and physically. Either reinforce or exploit successes. And then here's something important. Note what we want to do. We want to exploit, rather than disrupt or destroy, those differences, frictions, obsessions, et cetera, that interfere with his ability to cope with unfolding circumstances.

Let me give you an example there. The guerrillas do it very nicely, and this is what I mean by this. Let's say there's a guerrilla operation going on, as you want an example, and there's a corrupt province chief in there. Well, normally, the people tend to try to go through the guerrillas, to get them to try to take out that corrupt province chief. The guerrillas say, "Bullshit. No, no. Don't take out the corrupt province chief." I'm going to show you how these guys are tough. Instead of taking out the corrupt province chief, by having him there, he becomes a recruiting poster for the people to come over to their, against his side. So they resist that until they got the whole thing, then they'll take his head off. Because he's a recruiting poster— if they put a good guy in there, then it's going to make their job tougher. See what I'm getting at?

[10:00] I mean, this is why you got to think through this stuff. Now, if they make too big a fuss, then they're going to have to take him out. But they sort of would like to use him as long as they can, as a recruiting poster. It's a very subtle, very insidious game. And then, subvert or— I'm just using that as one example.

And then these concepts, subvert, disorient, and the idea is go after those critical connections. In other words, find out— to generate those many non-cooperative centers of gravity that we're talking about here. So you can break down their cohesion and then you can mop them up. Absorption or mop them up, as the case may be, that's what you're trying to do. So these are the kinds of things you sort of want to—you don't memorize. These are the sort of things that you just kind of get as part of your thinking, sort of in the back of your head. Don't get them too present, because pretty soon you can't think. You're only worried about filling squares. They're just sort of back there.

And then your action. Observe, orient, to be more inconspicuous, do it quicker, and be more irregular. Remember what I told you about Jomini. About the Cossack cavalry. Had a big a discussion between the Cossack cavalry and these other cavalries, like the French cavalry. And he talked about, boy, the irregularity, was hard to figure out what they're doing and all that, but yet, they seem to do things to a common purpose. And he said, he made the remark that, oh, Lloyd, the guy that preceded him. He said he recognized that was—the Cossack cavalry was better than the other cavalries because of that. But then, as he looked at the evidence, he said, "In a sense, Lloyd was right. But we all know the regular cavalry is better." So he voted against himself, even after he looked at his evidence. But we don't do that today. We don't vote against ourselves, even after we see the evidence. Only Jomini does that. And that's what I'm trying to tell you. When you see it, don't fight it. You say, "God, is it true? Do I [unintelligible]?" And

you say, “It’s true.” And so therefore, you’re going to have to get over your preconceptions, say, “Goddamn, we’re going to have to face that thing.” And Jomini didn’t face it. That’s a good example.

I showed Mike in there. You go to get the book, it’s right in there like that. It’s very clear. You read it, you say, “I can’t believe this!” Clear as a bell. He voted the wrong way. And just like I told you, in the Civil War. You’re looking at the book, *Attack and Die*— I don’t know how many people read it. And *Forward into Battle*. What you wanted— it’s Civil War, I mean, not— yeah. *Attack and Die* was Civil War, *Forward into Battle* covered a lot of those wars in the 19th century. And where these formations would break down, because they broke down, the attack would succeed. And so they thought they just blundered into a victory. They didn’t realize that the formation, these regular formations, were making them unable to succeed. Once again, voted the wrong way. The writing’s right here. I looked at it and said, “My God, here it is.” And they couldn’t see their own evidence, because they had their biases fixed by all those drill regulations they’d been looking at for twenty, thirty, forty and fifty years. We all know that they’re good drill regulations.

And that’s why you’ve got to always try to—one thing I haven’t brought up. You always should try to unravel your own ideas. When you look at it, say, try to keep unraveling your own preconceptions. Make that an honest process within yourself. I mean, you’re not doing it to have chaos, you’re just doing it to be sure you don’t have biases that are not allowing you to face the situation. So these are the kind of things. The basic idea. By doing it— look at this. More equipped to be more irregular. Christ, the other guy says, “What the hell’s going on here?” See, that allows you to get inside his loop. So therefore you can shape your main effort and go out and unexpectedly penetrate vulnerabilities and weaknesses exposed by that effort, or the other efforts you’ve got going on, that tends to free things up. In other words, sort of like a *cheng/chi* idea that we talked about. Okay?

And then, your support. Your communication, your logistics. The other— one is to maintain cohesion of the overall effort, and the other one is so you can operate at appropriate base of operations. Want to be sure you have that.

And then finally, your command. Look, I call this command with a light touch. Decentralize in the tactical sense, in other words, you want those guys to be tigers. Give them freedom of action within a common outlook, a common frame of reference. And then, by doing that, as they see those opportunities open up, they go through. They streak through. I call this command with a light touch. Remember, the more you try to control somebody—what we were talking about before—the less control you really have. You want exert control through your value system, through your common ideas, common outlook. That’s your control measure. Not say, “Do this exactly this way,” because you lose your control when you do that. And I can’t overemphasize that.

And then centralize in the strategic sense, because that’s the overall—where you’re worried about establishing aims, matching ambition to the means and talents, sketching flexible plans, allocating resources, shaping the overall focus of effort. Even Patton understood that. He told his

colonels, “Get the hell out of the tactics. You’re only going to muck up the operation.” You probably saw that. Remember you saw—

Wyly: Oh, sure. I found that in the—

Boyd: Yeah. I’m not quoting him, but I’m paraphrasing.

Wyly: No, I’m afraid you are. I quoted them in a *Gazette* article.

Boyd: Yeah. “You’re going to screw up the goddamn operation. Get the hell out of the tactics. That’s not your job.” Told his colonels that, now stay the hell out of it. So he understood that.

Okay? Knowing that, now what I want to do is, I want to sort of focus on this plan and action. I want to play with that a little bit, you see what I’m saying? So let’s play with that. [15:00] **[slide 129]** You’re going to see why in a minute. So the impressions I’m trying to create there with those plan and action movements. One, we’re trying to penetrate adversary system and mask ours against his penetration. So he can’t get inside our system.

Two, we want to create a variety of impressions of what is occurring, or about to occur. In other words, once again, it makes it difficult for him to keep track and know what’s going on. And because of that, you want to generate a mismatch between what seems to be and what is. In other words, he’s got an image or images of the world that really don’t correspond to what’s going on. Got it?

And finally, you want to push him beyond his ability to adapt. So he can’t even keep up or keep pace with what’s going on. And I call this, for lack of a better word, we’ll just call that first impression. First bullet and sub-statement. And second, remember, the intentions that make up the plan cannot happen without application of transients that make up the action. You know, you have a good plan, but you don’t have no initiative to execute. Baloney. So you got to execute. Okay?

And I call this the second impression. Now let’s work— look at the first bullet, the first impression. **[slide 130]** And I go back to Napoleon. Some comments made by Napoleon. I’ll let you read them. And what I’m showing you here, his comments really fit in very nice with our plan and action statements. Fit in nice, I mean, his— yeah. These tactic— these, Patton strategic and tactical— you know, the plan, you’re sort of thinking strategically, the action you’re thinking tactically. You see what I’m saying? In that sense, they fit in nicely with the following comments by Napoleon. I’ll let you read it and then comment on it. Getting tongue-tied here.

[long pause as audience reads slide]

Anybody? What does that—what do those two paragraphs tell you? Or those two passages. What do those two passages really tell you? What’s Napoleon tell you? Just give it me very condensed, what he’s saying. I want it very condensed, very succinct.

Audience: Fog of war. It’s always there.

Boyd: That’s right. Which means what then? What do you want to do? Knowing that all—what he’s saying, all human beings, even the genius that he was, Napoleon and the commanders, this

is a big problem for him. And it's something they have to resolve, right? I mean, that's what he's saying. I mean, I don't care whether you like his language or not, but basically, that's what he's telling you. You might say, "Well, I wish he would have said it different." That's not the argument. I don't care whether he said it differently or not. That's the message. And if you think about it yourself, that's really a true message. That's really true. What is he really saying? If that's the case, that's a vulnerability that all human beings have. What you want to do is feed that vulnerability to them. That's a weakness or vulnerability. You want to turn the argument around, say, "Oh, is that the problem? We're going to make it even tougher, then he'll never be able to do it." Reveal ever-present vulnerabilities. What is this? So if we turn these arguments around, you want to play to that. You want to lever that, because it's a natural human condition. You want to lever that natural human condition, if you're in a conflict situation. Okay? So we're going to do that.

So putting together the stuff we've been talking about here, when you want to think about grand tactics, or operational level, or whatever you want to call it, or like you Marines like to call it, campaigning, which is all right too. I just use the old-fashioned term. **[slide 131]** And note what I'm saying here. This then sets up this, which sets up this. Note what I'm saying. Get inside his, by doing these kinds of things. Create tangles of threatening or non-threatening efforts. Generate mismatches between those things he observes, and those kind of things he's going to have to react or adapt to. Now if you can start doing that kind of stuff, thereby that allows you to enmesh him in an amorphous, menacing, unpredictable world of all these kinds of things.

As a matter of fact, not only that, you literally fold him back inside himself, because now he's out of touch with his environment. And what happens when that happens? Doubt, uncertainty, panic, chaos, unglued. And see, thereby, that sets up your— maneuver adversary beyond his capacity to adapt or endure, so he can neither divine our intention or focus his efforts to deal with it. You just pull him apart. More than bit by bit. Chunk by chunk, bit by bit. So that's the sort of a philosophy you want to have. Okay?

With that in mind, then, let's go to the second impression. **[slide 132]** Where I said the transients— you have to have the transients to feed the intentions, which make up the plan. So remember— I don't care whether you write it this way. But you want to get inside his tempo or pace, or get inside his OODA loop, whatever you want to call it. Get inside his mind-time-space. That, by doing that, that permits you to realize these intentions. And these are nothing more than a replay of the statements I had under what? The plan and the pattern of a successful operation.

But note what I underlined. Note these underlines. The reason why I underlined those, those underlines, actually, if you look at those words, *[20:00]* it's implicit in all those statements. The things that are underlined are implicit in every statement there. And by doing this—all this, you can realize the statement inside the box, was what you're trying to realize. You're trying to realize that statement. So then, if you take this and merge it with this, you glue the whole thing together. Just synthesize it. You see what I'm doing? I'm merging. What am I doing when I use the word "merge?" Synthesis. I'm not analyzing now, I'm synthesizing. I put it together. And so when I put it together, now you can come up with a generalized strategy.

[slide 133] We talked about generalized tactics, generalized grand tactics, and here's your strategy. You want to penetrate his moral-mental-physical being to dissolve his moral fiber, disorient his mental images, disrupt his operations, and overload his system. As well as subvert or seize those moral-mental-physical bastions, connections, those things that he depends upon. In order to destroy his internal harmony, produce paralysis, and collapse his whole ability even to carry on. That's your strategy in a generalized sense, regardless of where you are.

Now, obviously, you're going to have what? Many specific strategies. But they at least should subsume under them. Or like grand tactics, you can have as many grand tactics or operational things, maneuvers you're going to have, but they should be subsumed under that, because that, you're working—this is the human dimension. You're working his mind. Remember I said, terrain doesn't wage wars, machines don't wage wars, people do and they use their minds. And if you can get into their minds, you've got the people, you've got the machines, you've got the terrain. Okay?

Now, let's look at them all together. [slide 134] And if we look at all these—question?

Audience: Are you saying this is one of the main objects of terrorists?

Boyd: Oh, goddamn right.

Audience: I mean, that—

Boyd: A lot of this that I've got—a lot of this stuff that I've showed you—well, this is a summation, but all I'm doing is to say let's take it all together. Tactics, the grand tactics, the strategy, and the strategic aim—am I answering your question? The tactics feed the grand tactics, that feed the strategy, that feed the strategic aim. And there's overlap. The whole thing's coherent, too. Do you see what I'm saying? It's all coherent.

Now, answering your question, where did I get a lot of this? I looked at the guerrillas, I say, "Hey, these guys are really gifted at this stuff." I mean, it's in the blitzkrieg too, but you really see it in the guerrilla operations and that kind of stuff. They're really gifted. I mean, they cause us enormous problems. And look what the Afghanis did to the Russians. The Russians, when they went to Afghanistan, the idea wasn't to leave. They wanted to stay. They left with their tail between their legs. To this day, they still can't believe it. In fact, they're calling it their Vietnam now. You see it on TV where they say, "Well, we're having our Vietnam."

And they still—they're all screwed up. Their veterans all are pissed off, they're all arguing with one another, they still can't figure out what happened. Have you looked at it? They're talking just like our guys. They had the same problem. They didn't realize they had to be in the village and not attack the village. I mean, in a different sense. It's not like Vietnam, I'm just trying to say there are connections.

Audience: Colonel Boyd, the difference between it is, I think they had handled it worse than we did. They once—

Boyd: They figured by just being hard-nosed they're going to make a take. Well, they had to leave. They had to depart the scene. I mean, they're looking at themselves, they still can't figure

out why they had to depart the scene. Because here, they were the champion revolutionaries. But we were revolutionaries before those— when we fought the British. We did those kind of things. And now, meantime, everybody's doing it to us, and also the Russians.

Forgot something along the way. We forgot something along the way. So did they. They thought they were invulnerable. They're not. But you see what's going on here. It all plays together. It's all very coherent. Okay? I'm just pulling it all together.

Now, let me give you an alternative portrait. **[slide 135]** I'll let you read this chart. I mean, you can look at it that way, I just want you to look at it other ways, too, and think of your own ways. Remember I said, the important thing is to be able to look at these from many different viewpoints. So now let's just—let's pull it apart and look at it another way. But you'll see it's very similar. So we want to look at that pyramid from a few different sides.

So here's another way I can look at it. **[slide 136]** Synthesize these things. Lethal effort, maneuver, and moral. Lethal effort, this is the kind of things. Maneuver, these are the kind of things. Moral, you're trying to work them in. Pull it all together, here's your basic idea then. You can think of it that way. And you say, "Well, hell, I can think of another way." I say, great! Think it, write it down, good! *[25:00]* And the aim's very similar.

But if you think about it, this is not much different than the previous chart. I mean, it's got a little different focus. But you see the same kind of themes in there, it's just an alternative way of thinking about it. And maybe in some cases, this might be a better way of thinking about it than the other way, or maybe your own way. Okay?

Now what I want to do, now let's step all the way back to the beginning, because we worked our way all the way through. Sun Tzu, Mongols— I mean, Napoleon, Mongols, blitzkrieg, guerrilla war, counter-blitz, counter-guerrilla war, categories of conflict. There's something that keeps repeating itself over and over again. A theme that begins to show up. And this is it right here. **[slide 137]** Read that first box. An underlying insight. Note what I'm saying there. And I underlined the key word, penetrate. Unless one can penetrate adversary's moral-mental-physical being, and sever those bonds, or connections, that permit him to exist as an organic hold, as well as subvert or seize those things that he depends upon, you will find it exceedingly difficult, if not impossible, to collapse adversary's will. If you can't penetrate and do that, why should he throw the towel in? He won't.

And so, even though Russians made a physical penetration of Afghanistan, they didn't penetrate the other stuff, therefore, they didn't throw the towel in, instead, they had to get out. Just like we did in Vietnam. You think back over everything we've talked about the last two nights and tonight, work your way back from Sun Tzu, Mongols, Napoleon, Clausewitz, Jomini, World War I, World War II, blitzkrieg, counter-blitz, guerrilla, counter-guerrilla, that's what's going on. Which leads to what I call "the name of the game." With that penetration, then it permits you to isolate him from his allies, or isolate themselves from one another. In other words, you're generating those many non-cooperating centers of gravity, they don't have a base of support that nurtures, that keeps the operation going. It just withers away. It withers away.

Now, if you're going to have principles of war, which I'll get into, these are two good principles. Penetrate and isolate. Two of them, at least. You want to penetrate that guy, they're outwardly focused—you want to isolate those components one from the other, and then subdue or overload those components so you can get him to do what you want him to do, not what he wants to do. That's part of it, and I'll come back to it later on.

Okay. Now, which raises an interesting question. **[slide 138]** We want to step up to a higher level. How do we connect these notions, or the theme for disintegration and collapse with the national goal? Remember that other thing we called “theme for disintegration and collapse,” that alternate view. How do we do that? So let's look at that. And these are the kind of things you should be interested in.

[slide 139] One, it should support the national goal. Two, we should pump up—we should set it up so it pumps up our resolve, drains away adversary resolve and attracts the uncommitted. That's where we lost in Vietnam. We lost at the grand strategic level. We pumped up their resolve, drained away ours, and they attracted the uncommitted. We had to come home. We lost at the grand strategic level. So did Hitler. He had some good tactics. He'd pumped up the other adversary's resolve, drained away—he didn't really drain away his, they held together pretty well. But he did cause—because their operations caused the enemies to attract the uncommitted. He also lost at the grand strategic level.

And you want to end conflict on favorable terms. Obviously, ensure that peace terms do not provide seeds for future conflict, or in the event they do, at least not unfavorably towards you. So if you paste all that together, you can come up with a basis for grand strategy. **[slide 140]** Here's the basis for you. You better have this basis, because, otherwise, you're not even going to be able to play that game. Sun Tzu had two-thirds, remember he said, “Know your enemy, know yourself.” You got know your enemy, you know yourself, and also, those third parties out there. It's not just a two-cornered stool, it's a three-cornered stool.

Audience: Is this the level above us as military people though?

Boyd: You, as a military person, better understand that, particularly if you get caught in a guerrilla operation.

Audience: I understand. I understand. But how—

Boyd: But the politicians better understand this, otherwise, they can get us in trouble if they start doing the wrong things. If that's your nature of your question.

Audience: But once we're committed, we're well beyond this, and this is out of our hands.

Boyd: Wait a minute. No, no, no. You get in a guerrilla war, like I said, you can get inside the villages, instead of attacking the villages, in a sense, you're playing this kind of a game.

Audience: Sorry, this is pro-active? You can do this before the conflict starts?

Boyd: Of course.

Audience: —is what we should be doing, before the goddamn conflict starts.

Boyd: Of course. Before, and even afterward, but it gets tougher afterward. [30:00] Your point is well taken. It's harder. But it can still be done. It's got to be done very delicately. But, you know, you can't think of running a couple hundred tanks in there and blowing away villages, because all you're going to do is alienate—you're, pretty soon, it's "that dirty son of a bitch," they're against you then.

Audience: But we should be doing this before the conflict starts, to begin with.

Boyd: Exactly. You know when we should be doing it? Right now.

Audience: Right now.

Boyd: Right now. The answer to your question, absolutely. Right now we should be doing it.

Audience: Not waiting for the conflict to start, when we have—

Boyd: Yeah, you want to get on top of it. Get that leverage. Not only that, you build up friends. Not only that, you're not hosing a lot of people, except the guys you're trying to beat. [Cross-talk] getting beat.

Audience: Maybe I was getting too much down into the weeds. By the time they send me in, I don't have the opportunity to go into Grenada prior to, and try to make friends, try to get into the village to work with them.

Boyd: That could happen. When you're sent in that kind of operation, you've already been given the order to do it. But you can't disobey the order.

Audience: Very true.

Boyd: But then, what that is, that's a screw-up on their part because we got pushed into that position to do something like that. In other words, now we're attacking the village, instead of trying to get inside the village. And you can't say, "I'm not going to do it," because they're going to court-martial you. But it's still a screw-up. You understand what I'm saying?

Audience: Yes, sir.

Boyd: It's still a screw-up. And we got to recognize it. We don't recognize it, we're going to continue to make more and more screw-ups. That's all I'm trying to say. And so, it's not only know your enemy and know yourself, but also, the third parties out there. And understand their culture in all those different countries, so then you can play this game.

And like the gentleman back there—what's your name? If you're not prepared to play that game, you know what my recommendation is? Stay the hell out, because you're only going to muck it up and embarrass yourself before your country and everybody else. Which was your point, the other night. You're going to screw it up, that's all. And the people lose confidence in you, like right now, Christ, we're having a hard time running that third-world operation, because every time you try to think of something like that, when we're trying to help people out, "Vietnam," right away they raise the flag. The very thing you're talking about. They raise the goddamn

Vietnam flag, then they all— everybody starts trembling. “Well, we can’t do that.” Even though you’re right. Okay?

[slide 141] So we paste all that together, now we invert again. Remember, I went from bottom up. Tactics, grand tactics. So now we’re going top down. Your national goal. Of course, you already know what I’m going to say: we got national goal, grand strategy, strategic aim, strategy, grand tactics, and all these groups. So you don’t have to read them all.

The point I’m trying to bring out here, if you look at these, the upper two tend to be constructive in nature, yet they operate over a longer timeframe. Whereas, the bottom four, which is—he was sort of alluding to—tend to be destructive in nature, but they operate over a shorter timeframe. So the question is, how do you harmonize these two things that sort of have opposing tendencies? Short-term versus long-term and constructive versus destructive? You sort of have to—you know, that’s the way the world is. You’re going to have to face up. How do you deal with that kind of stuff?

[slide 142] And so this little note here, this message under this insight here, is a way of thinking about it. I’ll let you read it in a formal sense, and I’ll deal with it even more simply after you read it. I’ll let you read it first.

[Long pause as audience reads slide]

Boyd: What am I really saying here? Anybody? What am I really saying? What I’m saying is very simple. That if you go in there, and not only get a quick victory, but behave afterward, the people are going to tend to be on your side. Why? Because here, if they spent money over a number of years, building up their defense establishment, and the whole thing collapses away in no time, they’re going to think they’re a bunch of corrupt bastards. So you got that working for you.

But if you go in there and come down heavy-handed, you lose it all. You lose it all. Think about it. Remember, let’s say our country got invaded and here we spent years, billions of dollars for defense, and somebody came in here and took us over very fast. You’d say, “Those dirty bastards. They didn’t even know how to do it.” But then if a guy comes down hard, then you reunify them. In a sense, that’s what happened with Hitler against Russia. Remember, they were welcomed in, but then, Hitler came down harder than they—Stalin, they said, “Well, we’re going to have a dictator, we’re going to have our own.” [35:00] So it’s very delicate. You’ve got to be very careful. Okay.

[slide 143] Now let’s have a further elaboration. Let’s build up to a higher level. Build up a philosophy. Pull it apart, and put it back together again in a different sense. Working up to a higher level. I’ll let you read that. In other words, what we’re talking about here is what I like to call a unifying vision, or a unifying theme for all this stuff. You can think of tactics, you think of grand tactics, or strategies, goals, but also you want to work a big, huge unifying theme.

[Long pause as audience reads slide]

Okay? [slide 144] And this I call a “theme for vitality and growth.” Remember, we had the “theme for disintegration and collapse.” Now we got a theme for—juxtaposing it, for vitality and growth. Unifying vision. This kind of a thing. Now the Marxist stuff, they had one there for a while, but since then, their systems been tested and it’s not holding up. And that was the theme that the world was going to march to. A unifying vision. They were trying to show the flaws in the other systems. You develop that, you better be sure you have that looked at pretty carefully. In other words, you’re trying to really build up a super-organic whole. On the other hand, you got to be very careful. You make it too rigid, then you lose these things.

Well, here’s the ingredients needed to pursue that vision. Insight, initiative, adaptability, harmony. Those kind of ingredients. Now too often, when people build a unifying vision, they lose this. In the U.S., we’re the other way. We tend to have this [references left side of slide, “unifying vision”], and not this [references right side of slide, “ingredients”]. They’re sort of opposite—they’re sort of in tension with one another. You go one way, you tend to lose the other. You go the other way, you tend to lose the other. So there might be some times you’re like, this is more important, you might lose a little bit. And other times, you want to play this. This is less important. So you’re always trying to work that balance. It’s an endless game, always trying to work that balance.

Now there was one time when we sort of had the good balance. When was that? I mean, talking about a time of real crisis. World War II, because we had Hitler out there, you see. So we got everybody unified, we can use him as the basis, he’s the evil, and therefore, we can still have these two things together. Go ahead.

Audience: That’s easy to understand, because we were threatened. We were hit at Pearl Harbor and things like that. But when you take a look at Vietnam, or even the present situation—

Boyd: Note what you just said. No, wait—let’s stop. I’m going to let you pick it up. What’d you just say? Go back up what you just said. Very important what you just said.

Audience: When we were directly threatened.

Boyd: You were hit at Pearl Harbor.

Audience: Yes.

Boyd: So what happened?

Audience: Well, we hit back.

Boyd: We used that as a basis to unify. In other words, these guys doing that. That’s what I’m trying to tell you. That’s why you got to be very careful about being heavy-handed. So if you do something like that, you can unify your adversary. And that’s particularly important in guerrilla war. That’s why I said, note what you just said. The Japanese unified us. Before that happened, we had “America First” units, we had the German-American Bundt, that—all that stuff. If you look back in history, I was a young kid at that time and I remember that. And as soon as they did that, the whole country unified. Goddamn it, if they’re going to play that kind of game, we’re going to kick them in the ass and win this thing.

Audience: With our [unintelligible] situation is not—

Audience: —country that ever consistently worked. I think in our society—

Boyd: Say again.

Audience: In our society, what I can see, you look at the history. To unify us, as a society, the way you're talking, is an attack on us. It was on our soil—

Boyd: What you're really saying, in a sense, we need a kick in the ass.

Audience: That's right.

Boyd: Yeah. Unfortunately.

Audience: Short of that, doesn't give us that unifying threat.

Boyd: That's tough. That's what I'm trying to tell you.

Audience: Vietnam, Grenada, none of that—

Boyd: But some way, if you know how to play the moral and mental game, and show people are really undermining you, and you really are in that crisis, if your people are clever enough, you can do that. Maybe not to the extent because of a Pearl Harbor, but it's sufficiently enough so you can play the game. That's what I'm trying to tell you. But if you don't know how to do that, and a guy says, "Fuck them. We're going to bomb them back to the Stone Ages," you lose it all. You lose it all.

Audience: It's not the same. In my battalion, you can almost see it. With what happened with the *Stark*,⁴¹ in the Persian Gulf, and then shoot-down of the Iranian airliner,⁴² I've thought many times to myself, if we had shot down that airliner just five years ago, seven years ago, I think that the whole reaction of the country and the media would have been completely different. And yet so, when that happened, basically, the attitude of the American—

Boyd: Why'd we get away with it?

Audience: [40:00] I say, I think because relating it to the *Stark*, short time earlier. Look, out of everything that's happened—

Boyd: Not only that, and the way the Iranians were behaving, and sinking those ships, and shelling those ships, that just warned everybody off and so they, the people, said, "Okay. We shouldn't have done it." You remember, people thought we shouldn't have done it.

Audience: Right.

⁴¹ In 1987, the USS *Stark* was deployed to the Persian Gulf in the midst of the Iran-Iraq War. On 17 May, an Iraqi aircraft fired two anti-ship missiles that hit the *Stark*, killing 37 American sailors.

⁴² On 3 July, 1988, Iran Air Flight 655 was shot down by the USS *Vincennes*, killing all 290 passengers and crew aboard. The *Vincennes* had mistakenly identified the aircraft as an F-14A Tomcat fighter flown by the Iranian air force.

Boyd: But it was a goof, and it wasn't intentional. Where if you were saying it was done in peacetime, they'd want to see generals fired and politicians fired. You're right.

Audience: They were shooting at America.

Boyd: That's right. But see, the circumstance, it was a different environment. In other words, it wasn't really morally justified, what we did. But it was recognized as a goof, there wasn't an intent to do it. They could get away with it. That's my point.

Audience: Absolutely. Absolutely. If we had said—

Boyd: And we didn't want to do it. It's obvious the guy that did that, didn't want to do that. It was a goof. Just like the Iraqi guy, pumped—at least, we think he pumped one into his cutter. I mean, we didn't like it. We were supportive. I mean, so the guy goofed, he got—he probably looked at the scope, “God, I've got a big goddamn Iranian target out there, let me launch one.” Two, I mean.

Audience: But I think if the same situation had happened—

Boyd: Because remember, they pumped two missiles into the *Stark*—

Audience: The late '70's, even. Even though it was a goof. I don't think it would've been accepted by the American people. I think we would still be beating up, because of the times.

Boyd: But because of circumstances. See, that sets the moral climate, that's what I'm trying to tell you. But in that case, we weren't attacking Japan or Germany and that. When they made an attack on Pearl Harbor, they just unified the nation.

Audience: Got a lot of national resolve when those hostages were taken by the Iranians—

Boyd: Yeah, the Iranians helped us out there, too.

Audience: That's right. And the press. But I think, unless you have something like that, you're being some of our Central American [unintelligible].

Boyd: Yeah, but let me show you. That's why I want you to hear my strategy brief, I address a lot of those things more specific and in the very way. I show you how to use those mismatches, but use it to your advantage. There's mismatches there, and how you use those, you could lever the situation. But it also demands a certain way you have to behave, and if you don't behave right, you could lose it all.

Audience: Do you agree that it's got to be in spite of what the politicians are doing to each other?

Boyd: Well, the politicians can undermine the whole thing if they do some dumb things. So they have to be careful, and people have to say, “Listen, tiger, that doesn't help us.” Why is Jim Wright in trouble right now?

Audience: I think he's in trouble because they went after Pamela Small?⁴³

Boyd: Well, that's one reason. That's part of it. I'm sure that's it. Look, why do you—I told you the other night. Why are these guys in trouble? You know what happens if—see, right now, we got a huge national debt. I mean, it's going in—what do you call it? The deficit financing. We got our trade balances going to hell. We're paying these huge things. Our standard of living is going to hell for a lot of people. Maybe in the military, you're better off and some of the guys, the rich people are better off. There's a lot of people out there are not doing well. They're on fixed incomes and everything's sliding away from them. They're even getting less income. I mean, I'm out there and I'm watching. I'm not in the Washington area inside the Beltway, Christ, smoking a cigar, having a nice glass of wine and living a good life, or a *Washington Post* reporter, who does all his goddamn work out of the press room up there and Christ, he's got a nice word processor and all that, and Christ, the editor, kiss his ass in order to get a good story and give him a good salary. And they do all their work inside the goddamn Beltway. And they're not sensitive to what's going on. There's people who are horned off.

And that 51% pay raise, it outraged the whole—I was down in Florida, and man, they were sore. They would have strangled some of the guys if they could have gotten a hold of them. Why do you think that Congress gave it up? They really wanted that pay raise. They knew they were in trouble if they went for it. And you know what they said down there? They said, “When they start delivering the goods, getting rid of the debt, and doing what they're supposed to, then we can talk about pay raises.” In fact, you know what they said, they said, “Wait, we ought to give them a 51% pay cut.” We'll give them the money based upon what they do. They haven't been doing anything, except grabbing money for themselves.

And if the goddamn job is such a poverty job, why is everybody fighting to retain their seat? Remember that 99% re-ran. And if it's such a goddamn—but why are they fighting to retain that seat in Congress? Couldn't be too bad, or at least they like being poor. I mean, you should have seen. I saw them talk to. Their people said they were out—it was terrible, they were outraged. Boy, they were really sore. And then you got these idiots in the *Post*, David Broder and the rest of them, “Well, they deserved it.” And boy, is he getting one hundred fifty or two hundred thousand dollars a year. He doesn't know what the hell's going on out there. He's comfortable inside the Beltway.

I'm just picking on *The Post* because they're inside the Beltway. They're not the only— See, that's —we're getting down to some very fundamental things. And that's why they're mad at Jim Wright. If they were picking the pockets and all that, yet the other people were doing very well, they say, “Oh, well, life goes on.” But not only are they playing that game, in the meantime they're hosing others, and the other people are getting screwed in the process. Say, “Oh, no.” Then it's too much.

Audience: [45:00] Politicians sort of have an innate guerrilla ability to flow like water themselves.

⁴³ Boyd is again referring to the scandal embroiling congressman Wright and his aide.

Boyd: Well, they sure did flow on that one, didn't they? And I forgot the pay raise.

Audience: Depending on the national sentiment, the American people adopted an attitude that the politicians immediately shook.

Boyd: I think they thought they could get that 51%, and the American people would just sit there with little grumbling, and get away with it. Well, it blew up in their face. They didn't do just a little grumbling. They raised a fuss. You heard about the letters? "You go for it, we're going to throw you out." That's the constituents on it. "You go for that, and you vote for it, we're throwing you out. You're not going to be re-elected, we guarantee." And one guy said, "Holy Christ. I want to be re-elected." He forgot that pay raise.

Audience: Another source of resentment is the back-door approach that they took, which they know is—

Boyd: Which is a filthy approach.

Audience: Right.

Boyd: So they didn't have to take any—

Audience: If I don't vote, then it happens.

Boyd: Yeah. They don't have to vote. In other words, they didn't even take responsibility for it. They couldn't even put it up front. They tried to do it under the table, so to speak. Not only did they want to get 51%, they knew they wouldn't get it if they had it up front, so therefore, they tried to sneak it in under the table.

[46:11]

[End of Tape 5, Side 1]

[Begin Tape 5, Side 2]

Boyd: They're holding their constituents in contempt by doing that. And so they reacted. Now they're afraid to vote anything. Because there's people out there waiting, "let them come in again, we'll beat up on them again." You know, because they know they're going to probably come in for 20% or 25%, they said we'll go after them one more time. Because now they're sensitized, you understand? They're out there, sensitized out there. Okay.

Now, what I want to do, application. **[slide 145]** I'll skip the thing on the blitz/counter blitz, it's sort of like what I had on the counter-blitz for the other thing, just in more detail. I call it "a'la Sun Tzu." **[slide 146]** I'll let you do that, but I want to go to the Manstein stuff. As soon as I can get my glasses on here. Skip that and we're going to go to Manstein. You can do that at your own leisure, it's pretty easy to follow if you want to talk about it. **[Boyd shuffles through slides 147-155, section "Counter-Blitz a'la Sun Tzu]** What number is that, please?

Audience: One fifty-six, sir.

Boyd: Yeah, one fifty-six— one fifty-seven, that's the one I want. **[slide 156]** One fifty-six, one fifty-seven, "Blitz/Counter-Blitz Strategic Design" or what I call "Manstein Divined." You'll see

why I say “Manstein Divined.” How many people here read *Lost Victories*? Also, Balck talked about it very heavily when he was in this country. Everybody else said boy, that guy, he was their best strategist, one of the best field commanders, Manstein. The guy was a genius of war. And that’s why I have it “Manstein Divined.” So let’s look into it, okay?

This is going to be up at the operational level, grand tactical level. **[slide 157]** First of all, I’m going to talk about the background, I’m going to lay out some background for you before we begin talking about it, and then the strategic design that plays to that background. So let’s look at the background.

[slide 158] In the background, remember we talked about— I’m just using this as sort of a scheme, don’t play it too tight. We talked about fighting the Battle of Leuctra and Leuthen, which what was the big thing when I talked about Leuctra and Leuthen? Remember, this is people’s minds, the commanders’ minds. Remember, they were examples of successful what? Single outflanking, or single envelopment scheme, remember. Remember we talked about the circumstances surrounding it, that’s all I’m talking about when I use that. Not that we’re going to fight it like Leuctra or Leuthen, but the fact they represent the single envelopment or single outflanking scheme.

The Battle of Cannae, double outflanking, double envelopment scheme, remember? And the Schlieffen strategic maneuver was on a grand scale, all it was, was a single envelopment scheme. Okay. And I just trying to play back and you look at— how many ever read about Napoleon’s Ulm maneuver? That’s a big, huge, wheel too, but except it was a fluid wheel, not the rigid wheel that they had in Schlieffen. And as a result, in fact it was his best maneuver, he pulled it off, and Mack didn’t know what the hell to do, so he surrendered. Threw his whole force in, didn’t even fight, threw the towel in. Yet people talk about how great Napoleon was at Austerlitz, Jena-Auerstadt, you know, other battles. But note the word, those were battles, the other was a maneuver and the guy threw the towel in, threw in his whole force.

Got so screwed up by the way it happened, he couldn’t keep up, cope. Yet it’s hardly ever mentioned. Okay? Okay, with that in mind then, the point that I want to make here, and I’m going to make an observation. **[slide 159]** Your single envelopment scheme, whether you want to think of Leuctra, Leuthen, Schlieffen, or whatever you want, they usually take less force than the double envelopment scheme, a’la Marathon or Cannae, to achieve the same benefit. Remember, we talked about that before.

Okay, so in a sense what I’m taking here is sort of a Jominian mindset to look at how you set up these operations. One of the reasons why I’m taking this as a mindset, these guys had those kinds of mindsets. The commanders, not necessarily bad, providing you use it in the right sense, okay?

[slide 160] Now, with that in mind, we’ll pretend we’re looking at it from the German viewpoint, World War II, the German viewpoint. First Poland, then France, then Russia, so we’ll look at Poland first, okay?

[slide 161] You look at Poland, and what do you see there? You see a lot of thrusts. You know to the uneducated eye, there’s a lot of goddamn happenings here. Not only that, they’re not—

they're really more than that because remember, they're just showing you Army-level thrusts. They're not down in the thrusts inside thrusts, which is all these kinds of these operations going through there. And of course they enveloped all these forces, you know, they cleaned out Poland in no time.

Not only that, you can look at that, there's not much of a concentration there, is there? The word concentration doesn't have much of a meaning. There's a focus. Okay, and what's my point? In a large scale, what it is, it's a Cannae operation. In other words, it's a double huge, double, you know, just look at the flow, it's a huge double envelopment scheme, with what I would call a Leuctra/Leuthen undertone. Because there's more weight that's shifting in this direction from the other direction. So there's sort of a combination of the two, to bag the forces.

Now can you see anything else there besides that? I showed you that. If you want to look at it through a Leuctra/Leuthen mindset, is there another mindset you can look at it through? And if so, what is that mindset? [05:00] You might want to use both, go ahead.

Audience: I should say the Mongols with the flying columns?

Boyd: That's one. Remember the Mongols were doing that kind of stuff.

Audience: Multiple thrusts.

Boyd: Say it.

Audience: Multiple thrusts.

Boyd: That's right, that's multiple thrusts. Why are they using multiple thrusts? Let's pin it down. Why are they using these multiple thrusts, that's what I'm trying to pin down, that's exactly right.

Audience: Confusion.

Boyd: Confusion, that's great, in other words the guys can't figure out what's going on, go ahead.

Audience: To disclose the surfaces or the gaps.

Boyd: I didn't hear what you said.

Audience: Surfaces and gaps.

Boyd: They're finding surfaces and gaps, that's true. Remember, it doesn't say surface, in fact in your new manual, FMFM-1, it doesn't say "surface" and "gap," it says "surfaces" and "gaps." So if you're using the words surfaces and gaps, you've got to think multiple thrusts. Yet some people still don't.

Audience: They have to see whether they can have success and exploit that—

Boyd: You're still— you're not quite getting what I want you to get. I want you to get at something very fundamental. You're on to it, you're all saying the right thing, what am I getting at? If I can't penetrate my adversary, how can I envelop them or isolate them? I can't. So the reason why you're having the multiple thrusts is so you can penetrate into his system, isolate the components from one another. What it really is, is a penetration/isolation scheme. So those Leuctra/Leuthen maneuvers are penetration/isolation schemes. I mean, you know, if they all walk up in a line and try to go into it, they can't penetrate it.

And that's the idea, the surfaces and gaps. I mean that's the thought behind it, what are you trying to do, you're trying to duck the surface and shoot the gap, because you're trying to penetrate his system. And then isolate, break down their organic integrity, and then scarf up the components, as you like to call it, and like the military likes to call it, in detail. Scarf them up in detail. Which you cut them off in all levels from their supporting, or their support bases as you might call, if you want to call it, and their supporting and nourishing elements.

So it's simply a penetration/isolation scheme, that's all it is. And then of course the overload, where you can subdue them at all levels. In this case, I'm just showing you the operational level. Okay?

[slide 162] And key point, you've got to keep in mind. Remember, the Germans did have more forces than Poles. It's important, in other words, they weren't the deprived aggressor here, to say the least. They had not only more forces, but better forces, because they had tanks and Poles were trying to run cavalry against tanks if you recall. Okay?

[slide 163] Now, let's go to France, and you can lay it out in two phases. And I lifted these right out of some history books, all these charts. And you see the first phase, phase one here, you see what's happened, remember they had this other sort of what I call the *nebenpunkte* or the *cheng* going up north here, and then the *schwerpunkt* coming out of the Ardennes, sweeping around until they threw the British out of France, and then the second part, where they conquered all of France. And this is strictly a, really a Leuctra/Leuthen operation, a single envelopment scheme you're playing out here. And here, you see a couple, you see, a sort of a inside out Leuctra/Leuthen, another one here. So it's an eccentric Cannae with what I call Leuctra/Leuthen wings. Eccentric meaning it's going outward rather than inward, in that sense.

But once again, what are they doing here? Penetration, isolation, penetration, isolation, that's what I'm trying to get at you. No penetration, no isolation, no penetration/isolation, the guy's not going to throw the towel in, you're not going to subdue him, you're just going to go on and on and on.

Wyly: But at the same time, that non-cooperative center of gravity—

Boyd: Yeah, what's you're doing—

Wyly: —it's going on.

Boyd: Not only that, what you're doing is you cut those connections. You generate those many non-cooperative centers of gravity so he can't function. That's what the isolation does, see. Remember, I said the inverse Clausewitzian. Not go after the center of gravity per se, because you may not, but generate many non-cooperative centers of gravity, and then scarf up the debris. That's what I'm trying to tell you. And so, you know, how do you call this a concentration [unintelligible]? You know, it's sort of not the right word, is what I'm trying to tell you. It's some excess baggage we've got from the 17th, 18th, and 19th century, it doesn't fit. There's a focus, oh definitely that, that's why focus is a good word. You have a focus of what? Efforts or focus of thrusts, so multi-thrusts. You see what I'm getting at? What's focus, right? Damn right. Focus and direction. Okay?

[slide 164] Now, France 1940, key points, I'm sorry. Germans had fewer forces than Allies did before phase 1, yet we call them the "hordes," [10:00] when you look in the history. They actually had fewer forces. Not only that, we had about the same number of tanks that they did. But they knew how to use them and we didn't. And when I was a kid I remember that, before Germans made their push on France, because of the Maginot Line, I was about, what, 13 then. And in fact they said the best army in Europe was France. Well, that was until they went through the Ardennes. They weren't any army, they were done.

The Germans had more forces than the Allies before phase two, the second phase here, because they threw the British out and conquered half the French Army, so then they could use all these, more of the double envelopments. Their first phase single envelopment, the next one double envelopment scheme. But once again, it's penetration/isolation. So you can generate not only penetration, multiple penetrations, multiple isolations, because the multi-thrust operation, see, to generate these many non-cooperative centers of gravity and then scarf up the debris.

Okay, Russia, '41. **[slide 165]** And we see here Army Group North, Army Group Center, Army Group South. Actually their main effort was supposed to be Army Group Center. But they had a number of efforts here, look at all this, whole front, multiple thrusts. So it's an eccentric Cannae with two Leuctra/Leuthen wings. Okay, and then of course, this is the first phase, another phase of the operation here before the winter weather set.

[slide 166] But what you have to understand, the Germans had fewer forces than the Russians, in other words they had grandiose plans and they were spread out, and they also leaped off with even fewer forces than the Russians. Had fewer forces than the Russians. Okay now— let's go on to another, 1942, what they did. **[slide 167]** Caucasus/Stalingrad campaign, you have Army Group B and Army Group A. And once they came down, their initial intent was to go on and mask off Stalingrad and conquer the Caucasus.

But then of course you know what happened, Hitler said we've got to take Stalingrad, because it was named after Stalin and that, figured would act as a moral victory for him over Stalin. So then he used his strength to go against Stalingrad, and you know what happened, instead of going strength against weakness, he started going strength against strength. And blew his panzers away and everything else, and eventually lost it. Really screwed up the operation.

But once again they trying to do the multiple thrusts, but then later on, they couldn't penetrate and they kept pounding away, just kept pounding away. So they're violating their own philosophy of going strength against weakness, and they paid the price. Because he was obsessed with taking Stalingrad. The obsession.

[slide 168] So if we look into this, World War II, blitz/counter-blitz strategic design and many other ones, what we see is Leuctra/Leuthen/Schlieffen. Manstein was the architect of phase one. Anybody that has read anything about the German operation, Manstein came up with the idea where they came crawling out of the Ardennes, or I mean not crawling, roaring out of the Ardennes against the French. Manstein had a beautiful operation. The question mark, I'll address that in a few moments. Manstein— Kerch Peninsula, anybody ever look at Lost Victories, that Kerch Peninsula operation? He was outnumbered by the Russians on a very narrow front, and you should see how nice he slickered them to get in behind. And at the same time he usually called a Grodich [PH] Brigade, remember that? He sent them down the whole length just to make the Russians, to put their attention on them so they couldn't realize his true purpose.

It's a beautiful operation. In fact, I thought it was one of the most beautiful operations, because if you look at the circumstances and the terrible circumstance, he had fewer troops, it was a narrow front, and yet he was able to still penetrate the front, capture a couple, two hundred thousand Russian soldiers and roll over the whole Kerch Peninsula. You've got to read it. I said goddamn, that's beautiful! So he had, psychologically, he's totally inside of them, they didn't know what the hell hit them, totally inside of them.

Okay, the Caucasus/Stalingrad counterstroke. Once again, this is a Manstein operation. No, no, excuse me, this is the OKW, this is why I call it a counterstroke. Initially, it was supposed to be a stroke. The Russian intelligence got wind of the German operation, in fact I should have shown you that in the previous chart, let me go back to that. I don't know if it showed it or not. It doesn't show it here, it doesn't show it. But initially, the Russians got wind of the German operation, so they knew it was coming because their own intelligence penetrated the German intelligence. So what they did, they leaped on with a preemptive offensive against the Germans. The Germans then, as they pulled into the German system, they didn't panic, they just pulled out and let them come in, choked them off, got about a couple hundred thousand troops, leaped in the back of them and spooked— still blew the operation, then they went against Stalingrad. So their thing that was initially set up as a stroke, took on the aspect of a counterstroke. In other words, a bait and envelop.

And it's real interesting. To the Germans' credit, instead of panic, they just adjusted to it, [15:00] and bagged a couple hundred thousand Russian troops, and then leaped into the void. And then still blew it. I mean they had everything going for them, and then they still blew it.

Okay, Man— this is the one I was trying to think of, Manstein— Donetz counterstroke. This is after Stalingrad. And this is Manstein, what I call his reverse blitz. And Hitler was furious at him. He's made what he called this long step backward, all the way back to the Donetz River. Way back, just pulling his forces, pulling them back further and further. What he wanted to do, he wanted the Russian fangs really to come out, "we've got those sons of bitches running," they're going for it, see. And he's back, and I forget the name of the city, and Hitler visited him. He says

you're crazy, but Hitler's afraid to fire him at that point, because Stalingrad was so bad. And so he says, "when are you going to launch the counterstroke?" He says, "not until I can see him outside my headquarters. I've got 'em stretched out as far as Plosse [PH]." So Hitler got in his plane and whoosh, took off, pissed off at Manstein. And he didn't launch until he could see the smoke of the tanks coming in. He says *now!* Whoop, chopped it off and in two weeks they had gained everything back they'd lost, all the way back to the previous— not to the, to Stalingrad, but previous to the Stalingrad operation.

And then of course, the spring rains set in and they couldn't go any further and everything bogged down, everything bogged down. It was beautiful operation, it was a reverse blitz. If you want to read it, it's beautiful. But then, like he said, like Balck said, all you've got to do, in fact, Balck talked about it, he said it was beautiful. He said, all you've got to do, is you've got to have nerve to do it. Just all you need is iron nerve. He said, and Manstein had that iron nerve.

Manstein proposal for counterstroke from Kharkov to Sea of Azov. He proposed that in lieu of the Kerch operation, pinching off Kerch. He recognized that preparations were going too long, he felt the Russians had wind of it, and he said, well, why not really thin out our forces down in the southern sector, the southern wing? Thin them out and do it, even though it looks like we're trying to hide it, don't hide it too much, so the Russians can get wind of it, because their fangs are still out. They'll make a huge stroke into our system, and when they start streaking way out past the Sea of Azov, then they're going to launch, they're going to gather, the Germans will have their forces against up there north, I'll show you what I mean, this chart, if they got, it's upside down.

They have Kharkov, yeah, Kharkov here, **[refers back to map on slide 167]** he wanted to thin out the whole southern sector here and let them go through, and then loop down here, and then pinch them off against the Sea of Azov and the Black Sea and roll them up in the rear, the whole southern Russian wing. And of course, Hitler said, "you're mad. We defend every foot." Wouldn't let him do it. It was a brilliant idea. Because if we can do that, then we'll take out a huge bunch of their forces and then we can go back in the offensive mode again. Disapproved, wouldn't let him do it. And Balck and a lot of the other guys said it was good, but they didn't have enough guts to take on Hitler, they should have made more of a noise. He was already in a weakened position because of Stalingrad, they said if they would have pushed it, they probably could have pulled that off.

So that was down-voted. See, once again, what was he doing, a super reverse blitz. Okay, and then Rundstedt/Rommel proposal— Normandy, they wanted to do a similar thing in Normandy. And then of course, the Ardennes in '45, you know about that.

Then the Cannae, Poland '39, France Phase Two, Russia '41, and the Kursk operation. You know about them. Okay, now notice I have question marks up there, why do I have those there? Well, it's a natural question. **[slide 169]** How come the Germans didn't attempt a Leuctra/Leuthen, in other words, a single envelopment, grand single envelopment scheme, because they knew they had less forces than the Russians, particularly in 1941. So they didn't get stalled out, outside of Moscow. And if they did want to come up with one, how would they do it? Guess what you find out in Liddell Hart, one of the few good things I found in his book.

[slide 170] And I'm quoting him, on page number, *The German Generals Talk*.⁴⁴ Note this, he's quoting Von Rundstedt. "The 1941 operations in Russian should, in my opinion, have had their main effort directed, not at first towards Moscow but towards Leningrad." In other words, you're still going to do it down in the central part of the front, but then you're going to loop up toward the Leningrad area, and then you're going to roll up the northern wing of the Russian forces against the Baltic. The Germans controlled the Baltic at that time, and you'd wipe them out.

And then, after you got that whole area up there set up, you're going to have a second phase of the operation, a two pronged phrase, two large prongs, many pronged, and you're going to loop down out of the Leningrad area, and also the one coming in from the west. And that way, you're going to bag, you're going to roll up the whole front from north to south. And the advantage of that is, the Russian communications, the railroads and that were very good down that front, so they could not only have a good port for all that having it, but they just roll up the whole front. [20:00] And just like a huge goddamn Venetian blind, take out the whole front, all the way down to the Sea of Azov. Just pumping them in, roll up, pump them in and roll up.

But then what we don't know is whether they thought about it ahead of time. And the advantage to that is one, the Germans controlled the Baltic, two, the communications up north were better so they could make that operation, three, the other advantage of it is because the north-south communications were very good, where they had a problem with that transportation going directly into Russia, the railroads, the roads, and all that kind of stuff.

And so we saw, what I don't know is whether that was proposed ahead of time. I looked it up very carefully, I couldn't see it, it looks like Rundstedt prodded this after the fact, not before the fact. Because I talked with Balck, and I mentioned this idea. He says well, he didn't think so, and I talked to von Mellen [PH], I spent some time with both of them when they were here. And they said no, that was a good idea but he said it wasn't thought of ahead of time, and it should have been. And Balck said it probably still wouldn't have worked. He said the operation would have worked, and I said why not, he said very simple. It's because Hitler, the way he behaved in Russia. He said we probably could have won the other way because the people were on our side, but then he came down heavy-handed with the SS group, and then of course, they turned against him.

Wyly: You know, it's amazing how many times I've found that in military history, where generals after the fact, including a lot of American generals, you know. Some of these ideas, and I've done the same thing, I'd look to see if they were thinking about it before. And usually they have but after the fact.

Boyd: [slide 171] So then, therefore, I said okay, I'll give him credit for it, even if it's after the fact. To do that kind of an operation, which it does go after the fact. [slide 172] Of course here's the message I'm trying to convey to you here, on their side. And one of the problems the Germans have is, we reformers have been criticized for using a lot of the German ideas. And they say after all, they lost the war. But you've got to ask yourself, at what level did they lose the war, they didn't lose it at the tactical level, they lost it at what? The strategic level. They did not

⁴⁴ B. H. Liddell Hart, *The German Generals Talk* (New York, NY: William Morrow and Company, 1971).

lose it at tactical level, they lost it at strategic level, that's where they lost it. Their tactics were superb. Their strategy sucked. So the British and the Americans, particularly the British and the Russians, the Americans actually did a better job of strategy. They lost at the strategic level, is where they lost it.

[slide 173] Okay, with that in mind, let's go into the wrap up. Any questions on what I— but note through all that, what is the theme? It's always that penetration/isolation where you might bias it one way or the other way, and you're doing it many levels, so you just pull that guy as far, generate those many non-cooperative centers of gravity, and then just scarf them up.

Okay, and here's the message, so I'm giving you a little wrap-up here. **[slide 174]** I'll just summarize what we've done here in about ten minutes, and then—

[long pause as audience reads slide]

You want— my point is, do you want to be hoser or the hosee?

[slide 175] In continuing that then, here's the game we're sort of playing. Use that as a basis to do this, thereby you can realize that, and how you do it. Quite simple when you put it all up. Note that word again, penetrate, to sever his moral— and see what I'm saying? Probably should have underlined it, but I don't like underlining all the time. Without the penetration, you can't get there from here, is what I'm trying to tell you. Well, you know, one thing we ought to keep, we obviously got to be more indistinct, and more irregular.

Why did we go to camouflage uniforms, why do we not wear, you know, red coats and white trousers, and all that? Because, you know, you're kind of revealed. What you try to do is you try to blend into the background, that's why we wear that. There's other ways of blending into the background, to operate in an irregular fashion so they can't do it to you. You want to do all the things you can do so the other guy can't discern what you're up to.

And frequently change what you're doing, so you're always giving a screwed-up picture of what's going on. Don't let your troops get comfortable, because then you're going to get sand-tabled. They're going to want to get, oh I've got [unintelligible] once again, while you're there, the enemy recce's always working a problem on you, in a patrol action. They're going to start knowing your outlines and they're going to start to figure out how, where your weakness are, they're going to be able to penetrate that and cause you problems. But if you're moving about, you're giving, you're screwing up their mental picture all the time.

[25:00] That's what you turn to, so you can pull them apart, produce, and do this. Okay? **[slide 176]** I'll let you read this chart, then I want to talk to this one, this is important, the implications behind this. You all want to understand in a tactical sense, these multi-dimensional interactions suggest a spontaneous, synthetic/creative, and flowing rather than a step-by-step, analytical/logical, and discrete move/countermove game.

And of course the two dashed statements below that are related. In other words, what I'm saying, without that, if you don't get the *fingerspitzengefühl*, you get all these goddamn procedures and

checklists, these complicated plans, well what is it going to do, [makes raspberry sound] just grinds you down, slows you down, slow as molasses in January. So put it another way. Complexity—I don't care whether it's technical, organizational, operational—that causes commanders to be captured by their own internal dynamics or interactions, hence they cannot adapt to rapidly changing external, or as a matter of fact even internal circumstances.

On the other hand, war is complicated. So you're going to have, you're going to tend to have complexity, how do you get around that? Because remember, you want to have the variety and rapidity, so how do you get around it? That's what we've been talking about now, for two days. And this is the third day.

How did I say get around that? Come on, you know the answer, you just won't feed it to me. I told you about the fighter pilots doing all that. You take groups of people, have them work together, and throw them against a whole bunch of different situations. And pretty soon it becomes part of them. In other words, that's the *fingerspitzengefühl* they build up. And with the *fingerspitzengefühl*, once you have that, in a sense then things don't look so complicated.

You know a basketball game, to the uninitiated, the way all that stuff happens it looks complicated, but the guys in there, Christ, they're blowing everything, do you understand what I'm saying? Same thing. And it can be done. We know it can be done, the Germans did it with some of their commanders and troops.

Audience: I think a real good example of that is that everybody here is familiar with is Pegasus Bridge, where Howard went in and they practiced over and over and over again every night, night after night after night. Attacking this bridge and knocking out the Germans that were there, and so they could almost do it in their sleep. And when they actually—

Boyd: They didn't even have to think about it.

Audience: That's right.

Boyd: Because it was in their subconscious.

Audience: It was a piece of cake, once they— they just knew what to do.

Boyd: No matter how the other guy adjusted, they were on top of it, they just keep getting on top of it. You've experienced that, do you ever notice when you're— some days when you're in some kind of a sport, with a lot of complicated, and all of a sudden, everything seems to gel, no matter— in fact, you ever notice when you're good at something, everything else seems like it's in slow motion.

Did you ever get that feeling? I used to get it when I fly the fighter, everything was really good, everything else just seemed very slow to me, and you're just carving that son of a bitch up, going after the other guy, whipsawing in here, and I've heard ground troops say the same thing. It's just that, Guderian said that, get that feel, that *fingerspitzengefühl*, and you've got everything, you just know it, and you're adjusted. Balck, same way, he kept saying you gotta have that

fingerspitzengefühl, all the time.

And that's what we're talking about here. In a strategic sense, these interactions suggest we need a variety of possibilities, so the other guy can't get wise, rapidly implement, and why? Ability to have these and generate many different possibilities, and permits one to repeatedly generate those mismatches. You want to get mismatch on top of mismatch on top of mismatch. In other words, you really want to screw up his image of the world. Or give him multiple images of the world. Because what does that do? Doubt, uncertainty, paralyzes his counteractions, et cetera. And if you don't have a variety of possibilities, you give him the opportunity to read into what you're doing, which means then you're not going to do too good, in fact you're going to get your head handed to you. So that's why you've got to have variety, rapidity, harmony, initiative, you see what I'm saying? All plays together.

Audience: Sir, you said one thing, you have to have the feel all the time.

Boyd: Well, sometimes you may be surprised.

Audience: If you lose it, hopefully you—

Boyd: But you want to get it back.

Audience: Come back, yes sir.

Boyd: And there's another thing I hate, and we talked about it in the car today coming back. I've heard people say I'll never be surprised. I just start laughing, that's horseshit. Because now they have a perfect image of the world, and never going to be surprised. You're going to get surprised, you'd like to minimize it. What you want to do is set yourself up so when you're surprised, you can adjust to it, and get back on top. You're going to get surprised, you can't say you're not going to be. That's a horseshit argument. The question is, can you cope with it? And if you've learned how to do all these different things, you start gathering yourself together to try to get back and you may have some problems. But you gather yourself together and get back on top of it.

Audience: I guess your example you use about the basketball team, you have to fight to say time out, time out.

Boyd: Yeah.

Audience: Be patient enough to work through it.

Boyd: That's right.

Audience: It's hard too.

Boyd: But I heard guys say, you know, I've heard it, I say get the hell out of here, that's bullshit. [30:00] In other words, you're God, you're a perfect human being. That's baloney. Have you

ever heard guys say that they're not going to get surprised, they're going to set themselves up so they are never going to be surprised, huh? I know some of you have heard it, I can't believe you haven't. I've heard people say it and I just laugh. Now if you want to say we want to set ourselves up so we're not surprised all the time, you want to diminish the possibility of it, that's a different thing. But nevertheless, you've got to be expecting, when you get a surprise you're going to get on top of it.

[slide 177] Okay, so now let's look at all these things— look at all these things we've been talking about, Clausewitz, grand tactics, strategy, and that; remember variety and rapidity, what does that allow you to do? Variety and rapidity, in other words we're throwing variety and rapidity at our adversary. It allows you to magnify adversary friction, stretch out his time to respond in directed ways. It will take him longer to cope.

Harmony and initiative, what that permits you to do is diminish own friction, compress own time and exploit that variety and rapidity, because you're trying to build up this *fingerspitzengefühl* to a higher-level harmony, so you can exploit that relative your adversary.

So if you glue all that together, variety, rapidity, harmony and initiative together, it allows you to get inside his OODA loop. Put uncertainty, doubt, mistrust, confusion, and all that stuff we've been talking about into his system, or fold himself back inside himself, so he can't cope with events as they start rolling over him, and just start scarfing him up.

And simultaneously, by looking through these things, evolve and exploit insight, initiative, adaptability as the basis to shape or influence events, et cetera. In other words, we're looking at it from a destructive viewpoint up here, and a constructive viewpoint down here primarily.

You see the two different themes? There's constructive themes and there's destructive themes. Sometimes you have to use destructive themes, or you have to use destructive themes in conjunction with constructive themes. Not just "we're going to bomb the bastards back to the Stone Ages." Because then they get mad and they fight longer and harder. Okay?

And the final chart under the wrap-up. [slide 178] What I call it, pretend we're a modern Sun Tzu, the art of success. I just said we're thinking like a Sun Tzu so it would be "Art of Success." And see, that's your game when you're in a conflict situation. You're always playing a destructive way against the constructive. It's guerrilla war, regular war. Today with vast communications, you need those third parties out there, otherwise they can cause you enormous problems.

Okay, now let's go on my epilogue. [slide 179-180] Remember what I told you, after I've gone through this, and thought about all of this, then mentally, not that I wanted to, I sort of started juxtaposing these things as the principles of war, the stuff we've been uncovering. And I was a little bit disturbed. So, it left me a little bit unsettled so I want to take them head on. So let's illustrate it by looking at some principles of war. [slide 181] And these aren't always the same, these all weren't drawn up at the same time, they were drawn up at different times, but you'll see in a minute, it feeds my argument.

For U.S.A., you've seen these, United Kingdom, in fact ours are very similar to the United Kingdom, because actually we got them from J.F.C. Fuller and we've modified it a little bit, but basically are about the same. And the Soviet Union— but notice the Soviet Union, where we don't have anything about speed or tempo, their first one is mobility and tempo. Where the hell did they get that? Because they got their head handed to them by the first part of the blitzkrieg, they didn't have it before World War II.

Audience: Didn't Fuller, after he wrote the "Principles of War," shortly afterwards says all this is a bunch of—

Boyd: Yeah, after he put it together, he said, when he saw people were using it, he says toss it out, it's bullshit. And then guess what we did, we went for it even harder. That's exactly right, that's exactly what Fuller did. I'm glad you mentioned that.

Wyly: In fact, J.F.C. Fuller waited years before he said toss it out, it's bullshit. He kept changing them, and I think it was in 1925, we looked at them, and adopted them, and they've stayed in concrete ever since. So then he changed them for several years, and then finally, threw them all out.

Boyd: Yeah.

Wyly: And the American ones and the British ones initially looked exactly the same—

Boyd: I think they were exactly the same.

Wyly: In fact ours lasted longer, we kept his old ones longer than the British, the British list in 1925 would have been just like our list.

Boyd: Yeah.

Wyly: And ours stayed in concrete the longest.

Boyd: Now these were drawn up in the Soviet Union right after World War II. And any—how many—some of you people might have read some of those—used to have translated documents, *The Operational Art*, [35:00] they've got them listed in there, you know, the book by Savkin.⁴⁵ Are you familiar with the book I'm talking about by Savkin? And that's where they're laid, you can just look and you can see them all. And he has long goddamn dialectic conversations on them, most of it's horseshit, but you know, if they don't get— I think it's about if they don't have one-third of their document full of dialectical materialism, they won't publish the thing.

And so you've got to work your way through all that baloney. It's terrible stuff to read. You know, every time I read that stuff, I got to sit there every five minutes and say, "hang in there, Boyd, it's going to better," knowing it's not. [audience laughter] Knowing that it's not, it's terrible. Drink a lot of coffee, "come on, tiger, it's going to get better," I'm giving myself a pep

⁴⁵ V. Ye. Savkin, *The Basic Principles of Operational Art and Tactics (A Soviet View)* (Moscow, USSR: USSR Ministry of Defense, 1972).

talk, knowing that it's never going to get any better. I got to deceive myself.

And then France, you'll see this, concentration of efforts, freedom of action, and economy of forces. In fact, they had different ones in their country. They argue about the, you know, the typical French, you know, different factions are going to have different principles of war.

And then of course the Germans—they might have them now—they didn't even have any. Well, isn't that interesting? They didn't even have principles. I don't know whether they do— do they have them now, I don't even know?

Wyly: Not that I know of.

Boyd: They might, I figured after they might have learned from us, but they don't even have principles. So the question is, you know, will the real principle stand up? Who's right or who's wrong, or what are we talking about here? And here's my critique. **[slide 182]** Second bullet is the important bullet. In other words, you know, Newton's second law of motion is not different for different countries, it either fits or the goddamn thing doesn't fit.

My point is, instead they seem to me to be some kind of a goddamn laundry list or checklist you're going through. I don't know what the hell else you'd use them for. To put it mildly, I'm very turned off. Not only that, they've got them mixed up. Let me go back to the list again. **[flips back to slide 181]** Christ, they've got input mixed up with output and all that. You look at it, they've got it all— this is us, this is us, or we'll take this one, we get objective, offensive, mass, maneuver, security, surprise. That's output. Some of them are your input, then they got output—they can't even separate the input from the output. Surprise is what you're getting the other guy, concentration is what you do. Same with Soviet Union, mobility, tempo, and surprise, output. I mean that's what you're trying to get out of your adversary. Mobility, that's you.

So the whole thing is all gomed up. That's my point. You see what I'm getting at? What do you do and what are you trying to get out the other guy? So it's— let's put it this way. It's not too well thought out. Not very well thought out. **[slide 183]** In any case, maybe there's an alternative possibility, way to think about this stuff. Not only that, I wouldn't get too keen on some of these scientific principles, because they're blowing a lot of them over right now. They've got stuff you know, the super— superconductors, you know. They had theories to explain that, and now they don't explain it. They get turned over too, not as frequently, but they get turned over. Or maybe not the whole thing, but certain aspects of it.

But here's an alternative, maybe we can come up with something that might help us. In other words, putting a— why not do this? If we need some guidance, then we evolve statements to reflect at least the conflict dynamics and some kind of a connected sense, where it plays together.

Or put it another way, why not collect appropriate bits and pieces and put them together in a coherent whole? In other words, let's do an analysis and a synthesis and see what we've got. There's a way of doing it, we've already done it, we've just got to look at it. **[slide 184]** So I'll do it in a simplistic fashion. You want to keep things simple. First of all, I think we want to compress our time and stretch out adversary time. Or do you want to do it the other way? Do you

want to stretch out your time and compress his? You're going to get taken to the cleaners if that's the case.

You want to generate unequal distributions as basis to gain superiority and leverage against him. We just see that piling up all the time. You want to diminish your own friction, or if you want to think like a modern 20th century guy, diminish your entropy while pumping his up, his friction or entropy. In fact, that goes right along, friction and time. You pump up your friction, you're going to stretch out his time. If you diminish your friction, you diminish your time for doing things, see what I'm saying? They go together.

So the more I can put friction in the other guy's system, the longer it is going to take to get his act together to do something. You're going to give him more and more delays, whether it be mental, whether it be moral, whether it be physical, or combinations thereof. And as a result of doing all these things then, that permits you to get inside his OODA loop. If you don't do this, you're not going to get inside his. Or get inside his mind-time-space.

[40:00] All this together then allows you to penetrate his organism and pull him down and bring about his collapse. And that's the destructive side. The same time, you want to amplify our spirit and strength, drain away his, and attract the uncommitted. So let's glue it all together.

And this is my last chart, and it's five after nine, getting late. **[slide 185]** Here's the central theme, what we've been talking about through the whole presentation in a very simplistic way. Now there is a subtlety there, I'm hoping somebody notices. It's my last chart, the next chart's just sources. You see it?

Audience: The noble philosophy is not stated. It needs to be the theme, an element of the theme.

Boyd: That's not what I'm getting.

Audience: But we have to actually construct the noble philosophy.

Boyd: You have to construct that, that's correct. But apart from that, there's a point that I'm trying to make here.

Wyly: Well, it's a destruction and creation value—

Boyd: Go ahead Mike, you're onto it.

Wyly: —both the positive and the negative.

Boyd: Note what I went through, sometimes I go from the negative to the positive, but in the end, you always want to start with the positive and go to the negative. In other words, you don't want to start off beating a guy up and then trying to add that, you always want to start on the positive side, and only do this when you have to, whereas before I showed it to you the other way. If you've been following my presentation, I invert it, I'm do a lot of inversions all the way through so you look at both sides. I don't know if you notice that, I construct that one way, and

then flip it up and go to the other direction. You should do that in your thinking. Turn your argument around, and then how does it play. You can say ooh, it plays differently.

Audience: Kind of *yin* and *yang*—

Boyd: That's right, so keep flip-flopping your arguments back and forth,

Audience: Destroying the will to resist can occur before the conflict actually begins.

Boyd: Of course.

Audience: And that's the constructive aspect of it—

Boyd: But you see, here's the constructive part, here's the destructive— whereas I showed you in a previous one, remember I showed you destructive first, then the constructive. And see, when I say this, I didn't say "yet." In the other one, I had this chart, I said, "yet do it." This one I said do this, yet be able to, I didn't say to do it, be able to. Because if you're not able to, you may get in trouble. So try to play that positive side as much as possible.

Because see then you justify, like we were against Iran, see if we have a noble [unintelligible], they play hard ball, even though we shoot down some airplanes we shouldn't have done, we don't look too bad. Which is the point you were trying to make. And that's sort of the idea we're talking about here, do you see what I'm saying? And when you get into a guerrilla operation, low intensity operations, that kind of stuff, this moral stuff becomes super important. Otherwise you'd lose the whole nine yards. I mean everybody would turn against you, Christ, it's all over, like Mike found out. I think we were talking about that last night. You're going to be in there, you're going to stay with us, yeah, we're going to stay here. So then they moved out because the commander ordered them to move out, they slaughtered the people who cooperated with them, they never trusted them again. Could never get anything out of them, right, Mike?

Wyly: That's right.

Boyd: That was the end of the line, done. So you people can't just be combat officers and sticking something into somebody, or shooting somebody at them. You've got to think in many different ways nowadays. It's a much more complicated world. Particularly as officers. And otherwise you can go into the thing. I mean not because you're malicious, because you really didn't think it through.

Audience: I just want to make sure I get it straight, you can work either side. You can go from constructive to destructive or vice versa.

Boyd: That's right. But keep in mind when you're doing it, keep in mind of the situation, whether you have justification. Remember, you want in the end, to have that moral support all over so you can lever your adversary rather than him levering you. And that's particularly true in a guerrilla, or what we now call "LIC," "Low Intensity Conflict."

Audience: You do that, you go from destructive to constructive, isn't that another way of saying you're reacting, you are on the reactive as opposed to being proactive—

Boyd: You're forced to go to the destructive, you're forced to go to the destructive, in a sense you're already reacting, that's exactly right. You've got it, you've got it. I mean you have no choice. But in any case, if you have to do it, try to get over to the constructive as fast as you can. You still may have to, but try to get it there as quickly as you can, do it.

Audience: But it's interesting in World War II, when we got into that conflict, I mean we hit them so hard and so fast, destructively, and then came on as the good guys at the end, it's interesting. The point is that, however this sounds, we won that one with no problem.

Boyd: We were justified. We were justified because of the way Hitler behaved. He was a badass from beginning to end. So we could be bad guys from beginning to end, and relative to him, [45:00] we looked like good guys. Remember it's a relative situation, that's what I'm trying to tell you. Remember we blew his— you know, we complain because he bombed London and he bombed Rotterdam and all those places, but then he set it up so we could do it him, we said they deserved it. And we took apart Berlin, we took apart Dresden, we should never have bombed Dresden. And of course we've been— people are still mad at us today. But at the time it was, well, Hitler deserved it.

That's what I'm trying to tell you, so we could get away with that, because from a moral viewpoint, he still looked worse than we did. And what you want to do when you're playing this game, you want to set things up so the other guy, morally, is in the gutter and you're not. Or at least if you're in the gutter, he's in one even below you. Very important. And see, that's why he was making the point he made. We got away with some stuff that happened at different times, guys would have gotten fired, we would have been in deep trouble.

Audience: You shoot some arrows, blame it on the other guy--

Boyd: Be careful, because then if you do something like that and you play a game like that, and then it surfaces that you did that, then you're really deep [unintelligible].

Audience: I was suggesting that that may have happened.

Boyd: Oh, okay.

Audience: It's a dirty play, but it's the real world.

Boyd: I understand. Okay, so—
[46:31]

[End of Tape 5, Side 2]
[end of "Patterns of Conflict"]