

Four basic principles that apply to Marine Training, High Tech Industry, and, of course, Hockey:

- **FAST IS BETTER THAN PERFECT—THE 70% SOLUTION:** A good decision now is better than a perfect decision later, because by then, the play will be over. Be confident working with incomplete data, do the best you can under the circumstances.
- **MAKE EVERY TEAM MEMBER A PROBLEM SOLVER:** Play every position, play other sports, be active at and away from the puck, cover for each other.
- **REWARD FAILURE:** Every turnover is a failure to maintain possession—hockey is full of failure: be accountable for your failure, own it and profit from it; expand the comfort zone by treading outside of it. Ask players questions and wait for answers—when the puck drops, it's not what the coach knows that's important—it's what the player knows. Don't fear dead air. A coach's job is to make himself unnecessary.
- **SEEK OUTSIDE PERSPECTIVES:** Other sports, other professions, other principles apply to what we do—find them. As a coach, you may need to do more than be an on-ice lighter of lightbulbs. What else can you do that will make your coaching experience more rewarding? It may involve educating parents or finding ways to decrease costs or a million other possibilities—look for them and you'll find them. We aren't in this for the money.

A Few Good Principles: What the Marines Can Teach Silicon Valley [David H. Freedman, Forbes ASAP, 05.29.00](#)

For many managers, business has become a nightmare of velocity and complexity. In the technology sector in particular, companies leap into existence and steal significant market share from established companies in a matter of weeks. As a result, companies are desperate to be nimbler.

One might suppose the military, with its legendarily hierarchical, command-and-control habits, would be the last place to look for nimbleness. The Marine Corps is sometimes perceived as the most hidebound military branch of all, with Marines imagined to be mindlessly aggressive soldiers ready to hurl themselves at the enemy under the orders of abusive officers.

But in spite of the boot-camp images of snarling drill instructors and compliant, shaved-head recruits that are so deeply ingrained in the popular culture, my research on the Marine Corps showed it to be an extraordinarily innovative, almost freewheeling organization. In fact, the Corps' ability to react quickly and effectively in environments seething with complex, unpredictable, and fast-changing threats could make many Silicon Valley startups seem hidebound. It's the Marines' specialty. With their survival as an institution and as individual human beings at stake, the Marines have had to ruthlessly and endlessly examine, discard, define, refine, and redefine their approaches to achieve the ultimate in rapid, effective response to dynamic challenges.

Based on my recently published book, *Corps Business: The 30 Management Principles of the U.S. Marines*, here are four principles that the Marines employ to face fierce challenges in short time frames. Though I describe these principles based on the Marines' experiences, it's not hard to recognize how they apply to the New Economy's dynamic business climate.

FAST IS BETTER THAN PERFECT—THE 70% SOLUTION

In environments where conditions can quickly flip, and where the opposition can regroup and take the advantage in a heartbeat, the Marines consider indecisiveness a fatal flaw--worse than making a mediocre decision, because a mediocre decision, if swiftly rendered and executed, at least stands a chance. When it comes to planning missions, it is constantly hit home to Marines that fast and bold is where it's at. Driven by the notion that there is a cost to every minute spent mulling over decisions, the Marines have worked to push as much inefficiency as possible out of the mission-planning process. "If your decision-making loop is more streamlined than your enemy's, then you set the pace and course of the battle," says a general who commands an infantry division at Camp Pendleton.

The drawback to fast decision making, of course, is that the decision may have to be rendered while information is still sketchy or not yet filtered and analyzed. This fact leads to a sort of organizational uncertainty principle: The faster your decision-making cycle, the less assurance you can have that you're making the best possible decision. "If you're going to have a higher tempo than the enemy, you have to accept a higher degree of uncertainty," says one colonel, adding that there can be a benefit to the uncertainty: It leads to breaking challenges down into manageable chunks. "If you strive for low uncertainty, you'll have a longer decision-making process that is more likely to be driven to big, win-or-lose decisions," he explains. "Small, frequent, rapid decisions will save you from having to come up with a big decision at the 11th hour."

For all these reasons, Marines speak of the "70% solution," by which they mean an imperfect decision whose saving grace is that it can be made right now.

To see how Marines keep their decision-making cycles short, consider one planning session, which takes place in the bowels of the USS *Tarawa*. The *Tarawa* is currently home to the heart of the 11th MEU, or Marine Expeditionary Unit. An MEU generally consists of about three ships' worth of Marines, jets, helicopters, artillery, tanks, amphibious and ground vehicles, weapons, and supplies--it is a floating invasion party.

The MEU is at the end of a training cycle. Before it is allowed to deploy to the Persian Gulf or elsewhere, it has to get through two days of evaluation exercises, during which it will have to carry out a seemingly overwhelming 27 missions, ranging from assaults to airlifts to humanitarian assistance. As many as four missions will be under way simultaneously at any one time.

It is 8 p.m., and the first three mission orders have just been radioed to the *Tarawa*. This meeting of a 12-person "crisis reaction team" has been convened by Colonel Thomas Moore, the MEU commander, to deal with the first order: set up an aid operation in a poor country that has been devastated by floods, leading to starvation and disease. The group has one hour to come up with a mission plan. If they're lucky, they'll get a few hours of sleep before they have to execute it.

An unlit cigar bobs and jerks in Moore's mouth as he surveys the cramped and visibly rocking room. "The fight's on," he rumbles heartily. "How'r y'all doin'?" The responses, and Moore's responses to the responses, vary from sounds that approximate, variously, a seal bark, a warthog growl, a foghorn, and, most frequently, an "oo-rah." Apparently, the meeting is in order.

Moore promptly moves the meeting through a standard series of questions designed to lead a team to a quick decision:

What's the essence of the challenge? One of the Marines' greatest tools is that of simplicity: taking complex, confusing, or ambiguous situations and concepts and then boiling them down in their minds to their "essences"--easily graspable and actionable representations of a situation or order. In this case, the group decides that the essence of the order is to provide food and medical aid to a starving and sick population.

What assumptions can we make? In high-speed planning there is almost always a shortage of clear, complete, certain information about threats and opportunities. Having to think about and prepare for every possible contingency would be paralyzing. The Marines like to spell out those conditions

that seem highly unlikely so that they can be put out of mind, and state as a given those conditions that seem highly probable and thus must be addressed. Moore's group, for example, makes explicit the assumption that the mission will not be threatened with nuclear, biological, or chemical weapons, or by land mines.

What must we not do? Decision makers who are perfectly clear on what they need to accomplish sometimes fail to consider the unintended consequences of their actions. Determining what actions must be avoided can sometimes be at least as important as deciding on the actions that must be taken. Tonight, Moore's team decides that damaging property would be unacceptable, since it could lead to a loss of popular support for the Marines' efforts and make it difficult to safely distribute food.

What's being overlooked? The Marines hold as an article of faith that there are always angles they aren't anticipating. Later, Moore tells me that one mission nearly failed in the last MEU full-scale exercise because the execution team didn't take along enough spare batteries to keep special communications equipment powered up. Tonight, one officer points out that the somewhat rich prepacked meals the Marines carry could easily overwhelm the digestive system of a person suffering from severe malnutrition. Another notes that the meals may be incompatible with some of the population's ethnic and religious dietary restrictions.

MAKE EVERY TEAM MEMBER A PROBLEM SOLVER

The Marines' organizational structure is the classic military-style pyramid: A corporal has a squad of three men; a sergeant and second lieutenant have a platoon of three squads; a captain has a company of three platoons; and so on, up to the general.

This arrangement leads to an organizational hierarchy that might seem to some businesses appallingly narrow and tall--there are typically eight full layers of management between an infantry private and the colonel commanding the unit. That sounds like exactly the sort of stovepipe structure that businesses have been moving away from because of how slowly information and decisions filter up and down. The Marines have resisted flattening their organization because they've discovered by extensive experimentation that giving a manager direct responsibility for more than three people in a time of crisis is overwhelming, and it degrades decision making. But at the same time, the Marines have made a critical modification in this arrangement that allows it to become faster and more effective than a flattened organizational structure, pushing as much decision-making authority down to lower levels as the situation demands.

To understand how this twist works, first consider how it evolved. Up until the 1960s, the Marine Corps relied on the same basic style of fighting as most modern infantries: a "linear warfare" approach, typically in which two companies rushed at the enemy, while one hung back to support them. A battalion commander with a good vantage point and daylight could often visually track the progress of all his troops, enabling him to precisely control their movements. But there is a price to be paid. In the intense Pacific island fighting of World War II, linear warfare was effective but also resulted in devastating losses for the frontally advancing Marines. In the 90-day battle for Okinawa, nearly every single Marine present for the initial weeks of the fighting was either killed, wounded, or missing in action.

Over the past four decades, the Marines have reinvented the logic of combat. The result, now known as "maneuver warfare," shifts the emphasis from throwing swarms of Marines directly at the enemy to surprising and confusing the enemy by attacking quickly and repeatedly in smaller groups from multiple directions and at unpredictable times, spontaneously exploiting opportunities as they arise. But maneuver warfare poses a new problem: the enormous difficulty involved in coordinating, or even tracking, the movements of groups of Marines who are constantly shifting their positions and plans. The urban combat environment in which Marines are increasingly likely to find themselves adds a number of additional complications: The area may be densely packed with enormous populations of noncombatants on all sides, snipers can be hiding in any window, and buildings often block radio communications.

Maneuver warfare and urban fighting have made it increasingly doubtful that the conventional chain of command can at all times effectively control the actions of Marines who are on the front lines. If the chain of command can't hand down effective decisions quickly enough, there's only one solution: The lower links of the chain have to make their own decisions.

The answer, in other words, is empowerment carried to an extreme: allowing someone at the lowest level of the organization to make decisions that can impact the success of the organization's most important missions. This Marine-style empowerment allows lower-level officers and enlisted personnel out of touch with the chain of command to jettison preestablished plans, make up new ones as the situation demands, and commandeer the resources they need to carry them out.

One general recalls how, during the Gulf War, part of a platoon found itself pinned down by fire from an Iraqi machine gunner, and separated from the platoon's lieutenant and sergeant. A corporal from East Los Angeles decided to take action. He divided his squad in half, sent one of the groups to dig in at a relatively safe distance in front of the gunner, and then took the other half skirting around the gunner's side, where they surprised him. "It was a drive-by shooting," the corporal later explained to his lieutenant.

Marines guarding embassies, or stores of food and supplies during a mission, are authorized to make their own decisions on the spot about whether or not to fire on charging, hostile crowds that may be armed. The Marines give them this responsibility knowing that the decision these young people make will likely reverberate in headlines around the world the next day.

REWARD FAILURE

While Marine officers can be hard on willful or negligent screw-ups, they tend to be extraordinarily tolerant of most other types of mistakes. For starters, when a subordinate slips up, Marine officers usually look to themselves for blame. One sergeant describes how a corporal under his command forgot to process the paperwork for a training course the corporal needed to take. "I went to my lieutenant and told him I had failed to impress on the corporal the importance of getting those papers in," the sergeant recounts.

But no matter who is seen to be at fault, failure is not the worst thing that can happen to a Marine in many situations. It's not even necessarily treated as a bad thing. The Marines practice failure tolerance to a degree that would raise most managers' hair. To a certain extent, they demand failure: A Marine who rarely fails is a Marine who isn't pushing the envelope enough.

Marines see the occasional failure not only as a sign that a Marine is taking chances, as he or she should, but also as the best possible learning experience. As one captain puts it: "It's hard to keep quiet when you see someone making a mistake in training, but you have to. When that corporal makes the decision and sees it not work, that's how it becomes internalized."

One Marine told me how, shortly after being promoted to corporal, he took a squad out on a live-fire drill, where he decided on the spur of the moment to let a relatively inexperienced private run one of the teams. But the private promptly missed a cease-fire signal, and in the few horrifying moments before the corporal realized the slipup, the private's group continued to fire while other Marines had put down their weapons and were preparing to come out from their cover. Few mistakes have more serious potential repercussions in training; Marines are killed every year in such accidents. The corporal quickly found himself explaining to his lieutenant what had happened, even while picturing his career going down the drain. "But the lieutenant said that since no one was hurt, it was a good learning experience," he recalls.

Marine officers like to see their subordinates skirt the edge of failure, under the belief that people thrive under adversity and challenge. "The Marine Corps will definitely get you out of your comfort zone," explains one sergeant. But at the same time, officers don't go as far as purposely pushing their people over the line into failure (except at boot camp). No matter how difficult the mission, Marines are drilled to claw out success through planning, training, information, and resources. "I set my troops up for success," says another sergeant, "so that even when everything goes wrong it's problems we've already hit, and they can handle it. That takes them up to a higher level."

Marines' failure tolerance is not constant across all situations. Failures in training missions, for example, are obviously regarded as far more benign than failures in actual missions. In addition, failure tolerance is adjusted downward as the level of the mission climbs. That is, the failure of a high-level mission is regarded with a great deal more angst than the failure of a small task. And when it comes to the big mission for which the Marines have been called in, failure is truly regarded as unthinkable. "Mission accomplishment is what it's all about," says one colonel. "There may be setbacks along the way, but in the end you win."

In the same spirit, failure tolerance also decreases with higher rank. Officers don't blink twice when a private not long out of boot camp screws up; it would be miraculous if he or she didn't make mistakes with some regularity. The opposite is true of generals. "A general can't look like a mortal," says a former officer. "One failure and he's through." There's a sliding scale for the ranks in between.

As one colonel points out, the boldness that the Corps' tolerance of failure is meant to nurture is supposed to be an aggressiveness of action, not an aggressiveness of personality. "Being willing to step forward in action has to be seen as a good thing," he says. "Getting in everyone's face doesn't. People sometimes confuse the two."

SEEK OUTSIDE PERSPECTIVES

The Marine Corps is constantly on guard against becoming stagnant, or constrained by an inbred point of view. "Today's solutions are tomorrow's problems," says one captain. One key to keeping up the pace of change and a flow of creative thinking, say Marines, is to get good input from outside experts and thus to avoid becoming insulated. By "outside," the Marines don't simply mean other military services, with which the Corps is constantly exchanging information. They mean a variety of institutions in the government, academic, and commercial sectors.

Take, for example, the Corps' relationship with psychologist Gary Klein. It offers an example of the Marine thirst for the sort of fresh, offbeat points of view from which the most influential new thinking often emerges.

A group of Marines, one of them a sergeant, is hiking up a long, steep hill under a scorching sun. The sergeant's mission in this exercise is to have his squad take out a mortar pit that he was told is at the top of the hill and that has been firing on a nearby helicopter landing zone. Two-thirds of the way up the hill the sergeant is informed his squad is under machine gun fire from the top of the hill; the mortar is in fact on the next hill over. After directing the squad to take cover, the sergeant mulls over his options. His first inclination is to have his squad continue up to take out the machine gun, before heading over to the next hill to get to the mortar. But then he considers the mission, which was to protect the landing zone. This suggests the appropriate move is to go directly to the mortar, since the machine gun can't shoot far enough to threaten the landing zone. On the other hand, reflects the sergeant, leaving the machine gun in place could result in casualties to his squad when they try to head back down, which would also jeopardize the mission.

As the sergeant thinks out loud, a man stands nearby listening and taking notes on a clipboard. Though he has been trying to keep in the background, he couldn't stand out more from the Marines with whom he has been tagging along. He is slight, bearded, bookish looking, and dressed in shorts, white shirt, and running shoes. This is Klein, who has been hired by the Marines to design for them entirely new approaches to battlefield decision-making training.

If there is something incongruous about the idea of an academic psychologist helping to run a combat exercise, it is exactly the sort of incongruity that the Marine Corps seeks out. Klein had been researching decision making, in hopes of coming up with a better way of teaching people to make decisions, and had come to the conclusion that the conventional model of a rational chain of reasoning did not in fact reflect how decisions are usually made in most lines of work. "The rational model worked well in some cases, like when it came to deciding about whether a bank should approve a mortgage," he explains. "But for most situations the model seemed wrong." To confirm his suspicions, Klein spent months interviewing firefighters and observing them in action. His conclusion: Firefighters, and apparently most crisis decision makers, seemed to employ a sort of intuition to arrive at a course of action. Unfortunately, decided Klein, this intuitive decision making couldn't be taught; it could only be learned through years of experience.

A Marine colonel who read Klein's work believed that Klein was right about everything except the part about not being able to teach intuitive decision making, and he managed to convince a dubious Klein to try to create a course for Marine squad leaders. The result has been so successful that Klein has since gone on to teach decision making to businesses, aviators, and army officers.

The goal of Klein's teaching process is to turn decision-making trainees into what he calls "reflective practitioners"--that is, people who can think about and articulate the elements that contribute to their decisions. He prescribes that one-third of all exercise time be spent in debriefing. At Camp Pendleton near San Diego, Klein gives an example from a simulated exercise earlier in the day. "A squad is hit by artillery," he recalls. "The leader tells them to run for cover, and one of them steps on a mine, so two people are killed, and it's like ringing on the enemy's doorbell. Afterward, I asked the squad leader, Was he aware there was an artillery spotter? Was he aware of other assets? Was he aware of the risks? What information does he wish he had? Does he know how he'd do it if he were in that situation again?"

To gain yet another perspective, the Marines sent officers to Wall Street to hang out with financial traders. The goal: to learn how to make fast decisions based on information flowing in through banks of monitors--which may be exactly the way colonels operate in future conflicts. The experience proved helpful; the traders taught the officers, for example, to make better use of split-screen displays.

The Marines are even considering bringing civilian business managers into the Marines as instant colonels or at other high ranks. After all, notes one general, the Marines and the business world have at least one thing in common. "Whether you're pursuing peace or profit," he says, "there's a lot of tough competition out there."