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Chapter I: What is Airsoft?

The History of Airsoft (from <http://www.practicalairsoft.co.uk/>)

The Airsoft Skirmish Game has its roots in the higher-power skirmish game of paintball. There is some contention in the Airsoft community, as to when the first true 'Airsoft' model was marketed, but what is known, is that an American air gun manufacturer, Daisy, marketed what they called a 'softair' gun in the late 1970s and early 1980s, which fired a miniature 6mm caliber hollow plastic shuttlecock-like projectile, and incredibly low speeds, from a toy gun. The intention, it would appear, was to develop a new market for its products. They succeeded, and a new generation of rifle shooters was born.

This series of 'softair' guns are generally thought, on balance, to be the ancestors of what we now know as Airsoft models.

Shortly after Daisy marketed their softair guns, Tokyo Marui, then marketing self-assembly plastic replica gun kits, modified some of their designs to fire the same form of projectile. Within five or so years, they had all but halted production of the 1:1 replica kits, and gone into full-time production of virtually 1:1 self-assembly low powered 'ASGK' AirSoft kits, firing a new 6mm spherical plastic projectile. Within another five or so years, in the early 1990s, spring powered Airsoft models became 'old news', as the first generation of Automatic Electric Airsoft Guns, or AEGs, were marketed, not as self-assembly kits, but ready to use out-of-the-box models, of remarkable realism and accuracy to the real-world counterparts that they represented.

The rest is history, as well over ten main-stream manufacturers in Japan, Taiwan, and other parts of the far east, have sprung up to supply a brand new hobby sport, that uses these models in mock-combat games, called Airsoft Skirmish Games.

So, now we know the history of the models, how about the game?

The original hobby sport combat game is, of course, paintball, and this has been so well documented over the years, that it would be redundant to go into its origins here. However, paintball is illegal in Japan, which has probably the strictest firearms laws on the planet. This means that no-one may own any form of firearm privately, without a great deal of red tape to comply with, making it, for all intents and purposes, a non-starter. The same applies to paintball markers, which, as I understand it, are classified as firearms in Japan.

However, the Japanese, due to their culture of group-led activities, do enjoy combat games. How they accomplished this prior to Airsoft models being manufactured is beyond me (do you know? PLEASE tell me!), but the introduction of these models gave them the edge they needed to develop the hobby sport, which they get involved in, in truly massive numbers; it's not unusual for there to be well over 100 players at any given playing venue, on any given playing day, and well over 500 players at a competition/convention event!

The rules to the game originated in Japan. Similar to the Paintball Skirmish game, there are one or two major differences. Firstly, the Airsoft models have a much lesser range than paintball 'markers'; second, there are no paint gel projectiles used in the Airsoft Skirmish game, thus an 'honour' system predominates. The fact that paint is not used to mark your opponent could have been a major problem. However, since personal honour is a way of life and culture in Japan, and disgrace follows a cheat in that country, they found that to get the rules to work, all they needed to do was rely on their innate codes of personal honour. Thus, if you were hit by an airsoft projectile in a game, you were required to declare this, and remove yourself from the game. It worked, too, as cheating tends to spoil the fun of the game for every one else involved. The basic rules were, therefore:

You cannot use physical force, as the object of the game is to shoot the opposition, and have fun - it is, after all, only a game.

If you're hit, you're out of the game.

These are the rules that form the basis of the Airsoft Skirmish Game, and, for all practical purposes, have not changed one bit.

The game then grew, moving to Hong Kong, Korea, Taiwan, and the Philippines. It was then only a matter of time before other countries saw, and adopted the game. It appeared in America and Canada at about the same time, and Europe during the mid 1990s, but it is only in the last three to five years, that the hobby sport has started to thrive in the UK.

Now, in mid 2000 AD, there are well over twenty playing sites in the mainland UK alone, and more planned. However, the feature that appeals to the hobbyists most of all, is also the most controversial feature: the realistic nature of the models used in the game. It was therefore paramount to professional site operators that some checks and balances were imposed, in the form of self-regulation. This has resulted in an unwritten code of conduct, that, broadly speaking, mirrors air weapon rules. These unwritten rules appear to be codified into the following:

No one under the age of seventeen (18 in the USA - this text added by SpeedyToys.com 6-18-04) should be permitted to purchase an Airsoft model.

Airsoft models should NOT be shown in public places, and

the Safety rules that apply to real air weapons and firearms should, in the most part, apply to Airsoft models.

So far, then, this seems to be a good start, and would appear to work in the majority of cases. It remains to be seen if the APAC campaign will result in a more formal code of conduct for the UK Airsoft scene, but one lives in hope.

This, in mid 2000 AD, is where the hobby is at. A minor, but legal (if somewhat controversial to some), hobby sport, enjoyed by hundreds of people around the country. In any event, both the technology, and the hobby, appear to be here to stay - and long may that continue!

b. How to Play

To get started playing Airsoft all you really need is an Airsoft Gun (if it's a spring gun) and some BBs. The most affordable guns start at under \$20, so Airsoft is a hobby that virtually anyone can afford. Once you have a gun and some BBs, you can practice shooting at home against a target, you can shoot cans in your backyard, or anything like that. Airsoft guns are actually made to be able to shoot at other people safely, when proper safety precautions are taken (i.e. eye protection, body covering).

Chapter II: Types of Airsoft Guns

Airsoft guns are divided into three major categories, so we will discuss the advantages and specifications for each category.

a. Spring Guns:

Spring guns are generally the most affordable Airsoft guns, and they are the easiest to use. By definition, spring guns are powered by the air push caused by an internal spring, but the potential energy transferred to the spring when the gun is cocked originally comes from the user himself. Therefore, you don't need gas or batteries for these guns, but you have to cock them yourself.

In pistols, the spring is usually cocked by pulling the slide back on the top of the gun, similarly to the slide action of the real gun. So before each shot of the pistol, you must pull the slide back like you were cocking a real gun. Revolvers vary slightly in that you only have to pull the trigger back with your thumb to cock them.

Spring rifles are similar in that the action is like that of the real gun. In this cast the action is usually the same bolt you would use in the real rifle.

b. Gas Guns:

Gas are generally pistols, and they allow the guns to operate on semi-automatic fire, similar to real pistols. The most commonly used gas in Airsoft guns is Green Gas because it can be loaded directly into the gun's magazine along with the BBs so the gun can keep its real form.

c. Electric Guns:

Electric guns have two major sub-categories: Electric Pistols and AEGs (Automatic Electric Guns).

i. Electric Pistols

Electric pistols are similar to gas blowback guns in their operation but rather than using gas to power the gun, they require 4 or more AA batteries. Electric pistols are less expensive and easier to use than gas blowback guns, but they are generally quite a bit lighter, made of plastic, and less powerful. Electric pistols are better suited for the beginning or younger Airsoft player, as seasoned veterans who require semi-automatic action from a pistol prefer the gas guns because of their weight, power, and sturdiness.

ii. AEGs (Automatic Electric Guns):

AEGs are the most powerful, highest end, most expensive Airsoft Guns available. Their prices can differ quite a bit because more and more cut rate, cheap Airsoft manufacturers are offering flimsy cheap AEGs for prices as low as \$50. High end AEGs can cost as much as \$500, though. The low end AEGs are hardly worth their cheap prices, but high-end AEGs are the best of the best.

ICS manufactures fully-automatic Airsoft rifles that are replicas of several MP5 models (most commonly used by police SWAT teams) as well has M4s and M16 (standard military issue assault rifles). All of the ICS AEGs

feature full metal bodies, high-capacity magazines, and the ability to fire 600 rounds a minute - the same firing rate as the real weapons.

AEGs use a rechargeable battery pack similar to those used for radio control cars. The battery packs can cost a bit of money, but they are easily recharged in standard sockets.

Chapter III: Common Uses

a. Indoor Target Practice

One of the great things about Airsoft guns is their nature allows indoor use without risk of great damage to your property or excessively loud noises. Airsoft guns do generally shoot at a slower rate than conventional BBs, and with lightweight plastic BBs, the risk of damage to furniture, etc. is as significantly lowered as the risk of bodily harm.

Most Airsoft manufacturers now offer BB target traps and sticky targets. Sticky targets are padded adhesive targets designed to catch the BB exactly where it hits. Trap targets are designed to catch the BBs via a cloth backdrop after it goes through a paper target. Both targets allow players to reuse BBs.

b. Replicas of real guns

BB size aside, the real factor that separates Airsoft Guns into an entirely new category of hobbies is the fact that they look identical to real guns. Even without shooting anything, this opens the door for some other uses.

i. Film / TV Props

Traditional film and television prop guns cost several hundred dollars even for the most simple prop gun. Most prop guns today don't even fire blanks, as the gun fire is added digitally in post production. With the digital revolution and the rise of low budget and zero budget filmmaking, resourceful filmmakers have quickly found less expensive ways around virtually every cost involved in filmmaking.

Airsoft guns that look identical to real guns on camera can cost as low as \$20, while the average movie prop gun costs \$300. Smart, savvy low-budget filmmakers all know about Airsoft Guns.

ii. Gun Collectors

Gun collectors also like the idea of Airsoft Guns, because they're great for display purposes. Collectors can get Airsoft guns identical to the guns used in WWII, Vietnam, their favorite movies, and so on.

c. Fun with Friends

The most common use of Airsoft Guns is the simplest. Games like these have been played since the first kids played "Cops and Robbers" or "Cowboys and Indians," and the games change, but the spirit does not. Of course now days, people must use proper protection when playing the Airsoft version, but now even adults can have fun with it. But, having a toy gun that looks exactly like a real cop's gun adds a whole new element of fun to the traditional game.

Many families have found the safe fun that can be had with Airsoft Guns both indoors and outdoors, and really our next section is just a more complicated version of this game:

d. Airsoft Skirmishes

It is fitting that Airsoft Skirmishing is similar to Paintball games, but different because Airsoft Guns have so

much similarity to traditional paintballs guns, but are different.

Airsoft Skirmishing is a sport where two teams battle each other in an environment as similar to war as possible. Across the United States Airsoft Teams and Leagues now exist to promote and organize this sport so that its enthusiasts can have as much enjoyment as possible.

Skirmishers can use either paintballs or BBs. 6mm Paintballs do not explode as large as regular-paintballs, and the paintballs do not provide as good accuracy as heavier BBs, so many hardcore skirmishers prefer BBs and the honor system.

Many skirmishers carry multiple guns and act similarly to Special Forces Units in guerilla-type combat. In a situation like this, a player will carry a primary gun, usually a fully-automatic electric rifle such as an MP5, M4, or M16 – arms similar to those that Navy SEALs, SWAT teams, and infantry carry. In addition, they will carry a sidearm, a pistol that is usually gas or electric powered. They may even carry more guns depending on their investment and involvement in the sport.

Rules are written for each league, documenting surrender rules, maximum velocities for the guns, legal ammunition, and every other tactic that may come into question. Teams plan their battles carefully, using many of the strategies used in real military combat, and this is no surprise since many Airsoft enthusiasts ARE ex-military.

Following is more information written by Airsoft enthusiasts on issues pertaining to skirmishes:

CHAPTER IV: Airsoft Accessories

a. Clothing for Airsoft

Skin and/or second layer clothing

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What you wear next to your skin, under your jacket, is equally, often more, important, than the jacket itself. In summer, a light tee-shirt is probably best, but in winter, you MUST have a good air-trapping layer, or you're likely to get not only rather cold, but slightly exposed as well. Think about a 'Norwegian Shirt' style of light-weight jumper; its got a 'terry-towelling' inside face, which traps air, forming a surprisingly warm layer next to your skin. If it's unreasonably cold, either a fleece layer jacket under your camouflage jacket, or an army 'wolley-pully' are good ideas. The idea is to build up two or three layers of insulating clothing, over which you wear your wind-breaking and waterproof jacket or jackets.

You might also like to think about laying your hands on a fleece jacket, if you don't want to get a Norwegian shirt; the Soldier 2000 issue fleece is good; available from several good British Army Surplus shops, the prices vary, but the laws of averages suggest that you shouldn't have to pay much more than £30 for a decent one. Get the camouflage one, if you like, but they're also available in OD Green!

Gloves

Gloves, for winter time, are also a 'must'. A good pair of 'Northern Ireland' gloves is my personal preference. They're cheap, last a long time if properly cared for, and the original items are made to a military specification (check the label inside the gloves - if there's no label, it's a copy. Accept no substitutes!

Head dress

Also for winter, is the need for a good head warmer, or a 'hat' <grin>. Hats come in many forms, from woollen (not very waterproof, but nice and warm), to camouflaged helmets (not really needed in Airsoft skirmishing, unless you really want to look the part). I prefer a woollen hat for dry winter days, and a dark green beret for most other days. In summer, I change the beret for a 'boonie hat', in British DPM (Get the ones made by Compton Webb, as they're the official UK MoD suppliers, by the way).

Footwear

Footwear is a very personal thing, as no two pairs of feet are the same. Never the less, I advise a pair of military-style combat boots. They can be expensive, but you can still get new pairs of the now redundant 'Boot, Combat High' in Army Surplus shops. They're good value for money, and tend to last a fair while. In any event, the boots you purchase should offer GOOD ankle support (there's a lot of running around, jumping, and LOTS of 'broken ground' in most Airsoft games), and be waterproof enough to resist the occasional three or four inches (or more) of water depth in the winter.

Now, some people (myself included, these days, sad to say!), tend not to do much heavy exercise. Consequently, they, like me, can be prone to what's called 'lower limb strain injuries'. Basically, you could hurt your feet from the impact of your feet hitting the ground, under the weight of all your kit that you carry. To lessen this, I recommend that you get some form of shock-absorbing foot bed insole, to put inside your boots. Probably the best, and well-known make out there, are Sorbothane. Specifically, I suggest you get the Sorbothane Sport Footbed. It's got shock absorbing cushions around the front and rear of the sole, and works wonders - don't try to be roughly-toughy about this, either: A broken foot, whether through someone putting their 16 tonne lorry's Michellin tyres over it, or through stress fractures, is still a broken foot. The insoles I suggest might just prevent you from getting lower limb stress injuries!

Caring for your Clothing

It's not enough to just sling it in the washing machine after you've worn it in a muddy field/wet undergrowth/dusty building while skirmishing all day. Oh, no. Not at all. Combat clothing, while intended for rough usage, must be carefully looked after, or it won't last long at all. My old combats lasted seven years, before I had to replace them, and so can yours. For outer wear, i.e. your camouflage jacket and trousers, do NOT use normal washing powder or liquid. Instead, use Nikwax TX-10, or Nikwax Cotton Proof, which is available from most good outdoors shops, and a few good Army Surplus shops. Each bottle has pretty much enough for ten small washes. DO NOT mix normal clothes with a Nikwax wash, by the way; firstly, it's a waste, second, it's not intended for normal non-outdoors wear clothes.

For your gloves, follow the directions given when you bought them; in the case of N.I. Gloves, a wash in warm soapy water does the trick. You can then treat them with either Dubbin, or Nikwax Aqueous Wax. Dubbin's cheaper, and goes further, but I prefer the finish that the Nikwax gives.

Your head wear shouldn't need that much care, but do brush off the much inside and out, and wash it every so often, or it'll probably up and walk off of its' own accord!

As for your boots. A rather emotive subject, this. I can only give you the benefit of my experience: Use Cherry shoe or boot polish, and loads of it, as well as a fair amount of elbow grease.

Immediately after returning home, remove the laces, scrape off the mud and muck (onto something that won't leave a mess on the carpet!), and put the boots in a dry, room temperature place, stuff them lightly with porous paper, such as newspaper (NOT Kitchen roll or toilet paper!), and leave them for a couple of days, if you can.

After this, scrape off the remains of the mud and muck on the outsides (not forgetting the soles and tread gaps), and completely cover the leather and synthetic outer surfaces, INCLUDING the soles and joints between the soles and the uppers, with polish. Apply the polish liberally (that means a fairly generous coating), and do not forget to do the tongues of the boots, either. Leave the boots for a couple of hours, then attack the coated-on polish with a stiff boot brush, removing the polish in even mono-directional strokes (one way brushing, not both ways. You'll get a better shine this way!). By the way, if you want to use specialist waterproofing polish, designed with the great outdoors in mind, instead of black boot polish, then go right ahead; just don't expect much of a shine!

Look after your boots in this way, and they should look after you, as well, for a fairly long time.

b. Types of Camouflage

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There are over ten or twelve types of camouflage, ranging from those used by the various national military services of several countries, to civilian makes and designs. Overall, you need to consider the main use that you'll put it to: are you playing in a woodland, open, or urban setting? Do you want to be different, or follow what most others will wear (a team uniform, if you like)?

The most common patterns of camouflage on clothing, that I regularly see on UK Airsoft Skirmish sites, appear to be (in order of appearance, and from left to right):



British
DPM



American
Woodland



German
Flecktarn



Swiss
Alpenflage



French
Central
European

I'd suggest, for cheapness, that the various form of British DPM camouflage clothing are probably your best choice; I say this for two reasons. One, it's plentiful, there being loads of it on the surplus market, and two, that due to this abundance of clothing in the surplus market, it tends to be cheaper, like for like (quality-wise), than different camouflage patterns.

Whatever pattern you choose, get a jacket and TWO pair of trousers at the minimum - you never know when you're going to need that second pair - and likely as not, it'll be a ripped pair of trousers that leaves you cursing your rotten luck, and wondering why you didn't follow my advice, and get TWO pairs of strides!

c. Other Accessories

More information coming soon.

CHAPTER V: The Science of Airsoft

a. The Physics of Hop Up

by Tac, Supergeek, Pikachoad and Jeff 'Dr Strangelove' Ridgway (who provided the graphics as well as content)

Used with permission from [Airsoft Retreat](#)

What is hop up?

'Hop-up', short for 'higher operating power', is a method of allowing a bb to travel further without imparting any additional energy onto it by applying a backwards spin.

With Hop-Up

Hop up works by the means of a rubber seal or nub inside the top edge of the barrel of an Airsoft gun that grips the top of a bb as it passes through. The friction on the top of the bb is greater than on the bottom as it has to overcome this rubber seal. This causes the BB to "roll" under, creating a spin.

The backspin allows the bb to counteract the pull of gravity for a short while, thus allowing the bb to travel straight further than a bb without any spin. The basic principle that explains this phenomenon is the Bernoulli principle, which is also the theory that explains how the wings of an aircraft generate lift.

When a ball passes through the air with out spin, the force from air pressure on the top and bottom are essentially equal and so cancel each other out. Thus, gravitational force (which causes objects to accelerate downward at 9.81m/s^2) is free to pull the BB down.

Daniel Bernoulli was an eighteenth century Swiss scientist who discovered that the velocity and pressure exerted by a fluid is related. As air (or water) moves faster, it exerts less pressure than a slower moving fluid. Airplanes use this principle by the shape of their wings: since the top edge is curved, it compresses the air flowing on top, making it travel faster than the air below the wing.

With spin however, there is some difference.

When any type of ball is given spin, there will be a small force on the side of the ball which is rotating towards the shooter/thrower.

For example. A boy throws a ball with left spin, i.e. the ball is rotating anti/counterclockwise. The left side of the ball is 'coming towards' him. There will be a force pushing the ball to the left. The same with hop. The ball rotates up, therefore creating a force upwards.

Now, this is all to do with air pressure. Applying spin on a ball in a vacuum is useless, as there is no air.

The force is due to decreased air pressure on of the ball rotating towards the shooter. This is because the air is being accelerated on that side of the ball. The acceleration of the air causes a drop in pressure, and as the air is not being accelerated on the other side of the ball (it's being deflected), the pressure doesn't drop on that side, so the increased pressure pushes the ball in the direction of lower air pressure. This mechanism is known as the Magnus effect, and is the same effect that makes golf balls go father, and what tennis players use to get the ball arc towards the ground faster.

A secondary effect to this a force due to turbulence from the spinning ball.

If a non spinning ball is thrown through the air, it will create turbulence behind it. But, as the ball is not spinning, the turbulence will be symmetrical behind it, and there is no net effect on the ball.

However, when the ball is spinning, the air coming off the ball is pushed to one side behind the ball, and the 'untouched' air will try to counteract this asymmetrical turbulence, creating a force on the ball, also in the direction of the force due to air pressure.

This secondary effect is known as the "Wake Deflection Effect"

So, in hop up, the bb is given backspin. This causes the air pressure above the bb to drop, hence allowing the greater air pressure below the bb to cause an upward thrust to the bb. This can be seen if you turn the hop on your weapon too high, and the bb will fly upwards.

The bb's spin will eventually drop away, as will the force holding it aloft. Then gravity takes over, and pulls the bb towards the ground.

b. Accuracy vs. FPS in Airsoft

by Pikachoad & SLB from Airsoft Players

For too long we have seen basic confusion regarding the effects that upgrading guns can have on your range and accuracy. People know the physics involved- its just sometimes difficult to translate the physics into real world observable results.

Part of the reason for this problem is the role of hopup on the system. For the sake of completeness, hopup is the name of the process of putting backspin on a pellet fired through an airsoft gun in order to create lift on the pellet, thus counter-acting the forces of gravity, resulting in a longer straighter flight path of the projectile. Since the hopup mechanism actually comes into contact with the pellet, it becomes pretty difficult to determine how the system will react.

So after hearing enough conflicting stories about what causes what, SLB and I decided to do some simple tests.

Phase 1: The effects of pellet weight on velocity

This was a simple test. We had two different guns. The first is my stock, unaltered G36c. The second is SLB's Frankenstein M16A2. It has a TN 6.04 inner barrel and is upgraded (along with scads of other accessories not relevant to this article) using a Systema M120 spring.

We tested using .2g, .25g, and .3g pellets, as those are the most common weights.

The results:

This is exactly as expected, and this was known well ahead of time. As the pellet weight goes up, velocity goes down.

Side note: Using the .2g reading as the baseline, we used an online velocity calculator to determine the energy of the gun, in Joules. Then using that J reading, we estimated what the fps of the guns mathematically SHOULD be for the .25 and .3 g pellets. The numbers the calculator returned were near identical to our tested results. The biggest margin of error was .5 %. So from our tests, it seems you can use the online fps calculators for accurate estimations of velocity.

Now, what was unknown was whether or not the lower velocity, heavier pellets were any more or less accurate over distance.

Phase 2: The accuracy of projectiles

For this test we just used the Chrony F1 Beta Master chronograph that SLB owns, pictured below.

The chrono trap area is about 139 square inches overall- we included hits against the chrono body as well. 139 square inches is about the same amount of surface area as a 13 inch diameter circle.

We stood the chrono at 25 feet away, then further back in 25ft intervals. We took turns firing 10 shots at the chrono, and counting how many made in through or made contact, vs. how many missed.

Is this a scientific test? Nope. Not even close. Is it realistic? I think so. When playing airsoft, you don't have scientific conditions in which you shoot anyway. We did this test in my backyard, diagonal across the yard. We are 100% sure of the distances we mention. Sadly, we could only go back to 125 feet, because we ran out of room.

Important note: we did NOT lob any of these shots. ALL shots were done aiming directly at the target. I used the stock sights on the G36c, SLB used his scope.

First, the G36c results. To know the velocity of the projectile, just refer to the chart above.

Now, the M16A2.

Interesting indeed. Observations:

1. Both guns became more accurate as the pellet weight went up.
2. The higher the velocity of the gun, the heavier the pellet weight should be for stable shots.
3. Up to a range of 125 feet, a stock G36 is able to use .3s with as much or more precision as the upgraded M16.
4. You cannot discuss accuracy without also discussing projectile weight.

I think that is pretty exciting information. Think about the numbers for a bit, and I think you will agree. There are some other conclusions that can be drawn as well.

Have a stock gun, and want it more accurate? Use a heavier pellet. Will that take away from your total range? Likely, but at least at a distance of 125 feet, it will make a huge difference. Is massively upgrading guns important? If accuracy is a concern, then yes only if you use very heavy BBs.

I apologize for not having a bigger back yard (well, it's out of my control), as that would allow us to see the disparity between the two guns at larger distances, and we would surely reach the point where the stock G36c is totally ineffective just due to the distance.

I will let you decide how relevant the distance of 125 feet is to you, and whether or not our target was too big or small. If you want a better understanding of that distance, I strongly urge you to actually measure and mark that distance off. SLB and I agree that at 125 feet, even with his upgraded M16 that had the faster closing time, if you were looking at the shooter you could relatively easily

dodge the pellets if fired in semi auto.

So there you have it.

CHAPTER VI: Airsoft Skirmish Tactics, Philosophies, and Articles

a. Airsoft Surrender Rules

by Pikachoad from Airsoft Players

When playing airsoft, there will always be cases where a player will try to get another player to surrender... i.e. give up without a fight. Due to a lack of normalization of the protocols for surrender attempts, we often find that some of the most dangerous encounters on the airsoft field come out of botched surrender attempts.

This article attempts to codify the procedures for surrender attempts. While I am not indicating that everyone should/will use this, these procedures WILL be used at least at every event I host (Op: Southern Comfort).

To begin, a few observations:

1. Safety is the paramount concern. You hear that? Paramount. Even more important than the simulation aspect of the activity. No matter WHAT, you should never shoot anyone at close range.
2. Simulation is the second most important concern. After safety of course.
3. Accidents will happen. But...
4. You are responsible for your actions. It is easy to get caught up in the moment of a skirmish, but there are no excuses for sloppy play when safety is at risk.

How does one ask for a surrender? This can be left up to individual groups or events. Some people say "bang." I personally prefer that the attacker say "Surrender." The key is just make sure every player knows what to listen for.

That being said lets begin with the rules for WHEN a surrender is feasible. As an attacker, you should consider a surrender attempt only if you are in total control of the situation. This is KEY. You should know where the opponent is, you should have a positional advantage on your opponent, you should have your gun properly shouldered/aimed, and your attempt at a surrender should come as a surprise to your opponent. If there is a CHANCE that your opponent could feel that he or she has the advantage over you, then do NOT try a surrender. In other words, a surrender should be a 100% one-sided action. The opponent should be caught totally off guard. If they know you are there, and know you are coming, DO NOT try to get a surrender.

Why?

On a philosophical level, when you ask someone to surrender, you are saying that their death is imminent, and you are giving them the chance to avoid having to actually be shot. Now, this means that for you to ask for a surrender, the opponents death must be imminent... meaning that the kill must be 100% yours. If there is ANY chance of them getting the kill on you first, then it is inappropriate to go for a surrender.

When going in for a surrender, KEEP YOUR FINGER OFF THE TRIGGER. Under no circumstances will you shoot the person. If you fear you will get shot yourself, maybe you should reconsider if you are actually in control of the situation, and if a surrender is appropriate.

When going for a surrender, you should only call for a surrender when your opponent is at point blank range. Meaning less than say 5 feet away... close enough to almost touch them with the barrel of your gun. If you cannot get in that close, then maybe you should reconsider if you are actually in control of the situation and if a surrender is appropriate.

Some people indicate that you should only call for surrender from behind... I find this to be a bit too exclusive, in that you can often get surrenders from the side or above, depending on the terrain and the layout of where you play. Just make sure you are within 5ft, and are in no real danger of getting shot.

Lets look at practical examples of this.

- - I saw this at an event in Atlanta this past weekend. We knew bogies were in a barn. Someone ran across the door of the barn, and while running, aimed their gun into the barn, and yelled "bang" a few times. This is not a valid surrender attempt. It was safe, which is fine, but it fails any degree of realism and control. The attacker had no idea where specifically the opponents were. Do not try for a surrender when you don't know where your opponents are.
- - You have one person in a bunker, one outside. The one on the outside knows the other guy is in there, so he sticks his gun in through a window, and calls for surrender. This is not a valid surrender attempt. You should be able to see the person and be in total control of your gun. I think it is lame anytime someone fires a gun without having it shouldered or properly aimed (ever see a person fire a M16 just by holding it off to their side, and not shouldered???), but it is especially dangerous to do it in a surrender attempt.
- - You have two people in a close quarters area, who suddenly each round a corner and see the other person a few feet away. Neither is in control, both are aware of the other, no surrender attempt should be made.
- - Same event in Atlanta as I mentioned above, same barn. Opponent on inside of barn, shooting out to the side. I come up to the barn, knowing he is still focusing on the people to my right, and him unable to see me because of the barn walls. I come up to the wall, waited for him to reload, spin round with gun in hand, aim the gun at him, and call for surrender. I am in control, I have my gun aimed, he has no idea I was there. That was a proper surrender, and he did. Once I finished that surrender, a guy that way behind me on the other side of the barn, hiding behind a door called for my surrender. I didn't know he was there, he was in control, and had his gun steadily aimed. Without hesitation, I surrendered. True event, with two proper surrenders.
- - At the field in Dothan, Steve and I were having a shoot out in Dodge City at fairly close range. He pulled back to reload or just get his bearings, and I quickly ran up to the bunker he was in, ran around the back of it, came up behind him, and called for surrender. He knew I was close, but didn't know I had gone around the back of the bunker, and I caught him by surprise. Properly executed surrender. True story.
- - At the field in Dothan again, Steve went for a surrender on Blake. Blake was shooting out of a window in a bunker, when Steve came up to the front of the bunker, and just suddenly popped in front of Blake and called for surrender. Blake was startled, and as he pulled back, his gun (which was already sticking out of the window) snagged on the window, and since the gun stopped but his hand kept going, he ended up squeezing the trigger and shooting Steve at point blank range. Now, this is an interesting case. Steve called for surrender, but because he wasn't in control of the situation properly, he was actually shot. If there is a chance you will get shot, then don't call for surrender. While it is unfortunate that Steve was shot at point blank, he shouldn't have thrown his body in front of a shooting AEG only 4 inches away.
- - Event in Athens, GA. One guy covers up in a bush by the side of a trail. Some opponents come by in a tank. The guy pops up when the tank is about 20 ft away, and calls for a surrender. This is an improperly executed surrender. Opponents were too far away.

Now, some of these scenarios beg the question... what do you do in cases where you cannot call for a surrender?

- - In the first example above, if you get close to someone but cannot make a controlled surrender attempt, and your only choice is to run by and yell "bang", then simply look for a better angle. Pull back, and try to approach from a distance and angle where you can either get a controlled surrender attempt, or, you can engage the opponent with your gun.
- - In the second example above, if you find yourself dangerously close to someone and you cannot get a controlled surrender attempt, either totally fall back and go for a longer-range attack or try to maneuver around to get a controlled surrender. In the fifth example above, I found myself in that position with Steve. My choices were either to retreat to a safe position and resume firing, or sneak around and take him by surprise, which I did. If he had turned around and seen me as I was approaching, a surrender attempt would have NOT been made (see the very next case below).
- - In the third example above, which is quite common, two people suddenly are face to face. No one is in control of the situation. Here you have two choices... either you both are out, or you both agree to part ways and meet again later in the battle. Remember, safety first, and no matter what are you to ever shoot someone in close. For the sake of realism, I would prefer that both people be eliminated in this scenario.
- - What if you have a good angle on someone, but suspect that if you move in close for a surrender, you will jeopardize your control of the situation or put yourself in an unsafe situation? Just position yourself so you are outside of the minimum shooting distance, and shoot them with a single shot. No need to spray on fully automatic if you have the element of surprise. In the seventh example above, the guy laying the ambush should have just waited and shot everyone in the tank, rather than trying to make a long distance surrender.

Can you deny a surrender? No. IF someone properly executes a surrender, then the opponent cannot deny it in any way. The responsibility in these situations falls on the attacker going for the surrender, not the opponent.

Can you exclude yourself from the surrender rules and just take close shots? While people may say "just go ahead and shoot me up close," that should never be allowed. People may not mind getting shot in the arm or chest up close, but in frantic situations, the attacker may accidentally aim for the head, and then suddenly things can get ugly. Literally. So for the sake of safety and

respect, everyone should adhere to surrender guidelines as they are explained.

So, with all that discussion in mind, here are the official rules I am putting for as a general guideline for surrender rules, and the rules I will be employing at all of my events.

1. 1. Under no circumstances can you shoot anyone inside of 20ft.
2. 2. Player(A) can ask player (B) to surrender when
 - i. (A) is in total control of the situation
 - ii. (A) has no real risk of being shot
 - iii. (B) doesn't expect (A) or doesn't know that (A) is there
 - iv. (A) knows (point iii) to be the case
 - v. (A) is within 5ft of (B)
 - vi. (A) does not have their finger near the trigger
3. 3. To call for a surrender, a player is to have their weapon properly shouldered/aimed, finger off the trigger, and call out "Surrender" loud enough for the opponent to hear. The opponent in turn is to respond by calling out "I surrender."
4. 4. Given proper conditions are met, a surrender cannot be denied or refused
 - i. It is the attacking player's responsibility to only attempt a surrender under proper conditions.
 - ii. Failure to attempt a surrender under proper conditions results in both the attacker and defender being eliminated.
5. 5. In any case where an engagement occurs in proximity less than 20ft, if there is ANY question as to who should be eliminated, both parties involved are to be eliminated.

So be smart. If you think there is a risk of you accidentally getting shot by the person your are trying to get to surrender, then you honestly are not in a good enough position to call for a surrender to begin with.

b. Ambush Tactics - The Winning Edge...

In airsoft, it's the team that uses the best tactics that usually wins even a small-size team can overwhelm a large-size team and be victorious. So here are a few ambush tactics that will help any team achieve victory through, teamwork, aggressive firepower and of course the element of surprise. It's a definite advantage to be able to pick the time and place to fight.

Ok, there are two basic types of ambushes, the deliberate ambushes and ambushes of opportunity. First, deliberate ambushes are predetermined ambushes that on planned out ahead of time and usually entail information about the enemy. Like enemy strength, weapons, size, location, direction of travel, speed, time of arrival and so on. An ambush site is picked out ahead of time and the ambush team arrives on site with plenty of time to set up for the ambush. The site is picked for different reasons, like it may provide good cover or have high ground advantage. It must be a site where the enemy is going to pass through, without a doubt.

Second, ambushes of opportunity are unplanned ambushes, in which there is no known information about the enemy. It's a happen upon chance that you get the opportunity to ambush an unsuspected enemy team, but the chance can be reversed too, in favor of the enemy. So when setting up for these types of ambushes, you have to be quick, silent and prepared for the unsuspected. Leave nothing to chance or luck. Ambushes of opportunity can also be just where a team is sent out to a particular spot and told to set up an ambush. Then they ambush any targets of opportunity that happen to pass by.

Ambushes can be used as a harassment tactic, two or three shooters lie in wait maybe where a trail or road slightly bends. They set up in the bend and just wait for the enemy to move through the bend and then open fire on them with full automatic fire. After 30 to 45 seconds, the ambush team breaks contact and hauls butt out of that area while the enemy team is still trying to regroup. The ambush team can then move to the next ambush site and wait again for the enemy to approach. Once again, they open fire and break contact after about 30 to 45 seconds, moving out of the area as fast as they can. They can try to repeat the ambush at another site, but more then likely the enemy will be more at guard and quicker to react to a third ambush. Besides, the ambush team has probably inflicted some pretty good damage to the enemy already.

Another ambush called the "maneuver ambush" which entails two separate ambush teams, one is the lead ambush team and the other is the rear ambush team. This to will use an ambush site where the trail or road has a bend in it. The lead ambush team sets up just slightly passed the other side of the bend and the rear ambush team sets up opposite side of the bend. As the enemy comes around the bend and enters the lead teams kill zone, the lead team opens fire with full automatic fire. The enemy who are on the end or rear still not around the bend yet, can't see where the fire is coming from. And or cut off as the rear ambush team moves in back them and starts firing on their position. Now, the two ambush teams have split the enemy forces in half with one fighting in one direction and the other fighting in the opposite direction. Neither of the enemy forces can assist nor help the other without compromising their own. The ambush teams can even have a third team waiting at the point of the bend. To add extra security or firepower to the enemies' flank.

Other ambushes are the V, Z and L-shaped ambushes; the L-shaped ambush is considered to be the most effective and is my personal favorite. So I'll start with that one. Again, you can set this ambush up where the trail or road bends and it entails two separate ambush teams again. One team is the back of the L and forms a line along the straight part of the trail or road to just slightly passed the bend. Kind of ties into the other ambush team which forms the bottom half of the L, which extends slightly past the back of the L, more like a T. Only one side of the T extends towards and passed the bend. When the enemy enters the kill zone both teams open fire with full automatic fire, which catch the enemy in crossfire. The damage the two ambush teams can inflict is quite severe, as long as both teams know their fields of fire.

The V-shaped ambush is positioned in the straight of a trail or road and entails a total element of surprise. The enemy may not be expecting an ambush in the straight of a trail or road. Anyway, two teams set up on either side of the trail or road, exactly opposite of each other, but facing outward in a sort of V-shape. Leaving the trail or road open so the enemy continues to advance without warning. The enemy enters into the V and both ambush teams wait for the Point Man to pass through as so to not alarm the rest of the enemy force. Once the Point Man is slightly out, both teams open up with full automatic fire again knowing their fields of fire. It's also a good idea to assign some flank security for this kind of ambush, just in case the enemy can get back and slip around behind either team.

The Z-shaped ambush works best where there is a winding trail or road. It also takes a large ambush team to set this kind of ambush up, but it can be done with a small-size team. The team sets up in a zigzag formation like a Z, as the enemy forces approach the winding trail or road and even if they are separated by distance. The ambush team can open fire with full automatic fire. The enemy force is caught in both a crossfire and over-lapping fields of fire. The bottom half of the Z and the connecting line of the Z can also provide flank security.

The most basic ambush is known as the "linear ambush" this is the simplest to set up and is most commonly used when setting up an ambush of opportunity. It requires little time to set up, little planning and works just as good as most ambushes. Again, it does require a total element of surprise. All that it takes to set up this ambush is to form a line along the straight of a trail or road. You'll want to set up some flank security, just in case. As the enemy enter into the kill zone the ambush team open fire with full automatic fire. The idea of this ambush is to lay down over-lapping fields of fire with each shooter knowing his field of fire. With that much firepower being sprayed into an enemies' flank the damage is quite severe.

Ambushes can be used for all kinds of scenarios, like eliminating enemy teams. They can be used as a defensive measure to warn the main body force that enemy forces are in the area. And to help weaken the enemy force before they try to assault the main body force. Ambushes can be used by Mike Forces or Security Forces to ambush retreating enemy forces or enemy reinforcements. They can also be used to capture a V.I.P. and team leaders. You can even leave an ambush team behind to protect the rear flank of an assaulting force. You can even deploy a type of search and destroy ambush, where one team is used to flush an enemy into an ambush, which is set up by another team.

So as you can see ambushes can provide any airsoft team with the tactics to win, whether they are a small-size team or a larger size team. It's the winning edge...

SHADOW

Silent, unseen, stays in the shadows.

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c. Treatise on Sniping in Airsoft

by Pikachaod from Airsoft Players

Due to the massive amount of time I spend online talking on this subject, I decided it necessary to gather my thoughts in one location. I am not writing this as a veteran airsoft sniper- I am writing this as someone that by virtue of business and pleasure has spent a lot of time dealing with and thinking about and playing airsoft. And this is here to try and get some more discourse going on the subject, and to save me from having to retype my thoughts over and over.

My dilemma is this: the notion of sniping in airsoft is losing meaning. I can't say for sure that there ever was a time when it had a true meaning, but from what I have seen discussed in forums I think it is safe to say it is straying from wherever it once was.

As a background, let me explain that I think realism is important in airsoft. The more realistic something is, the better it is. This of course has limits, and there will be times that realism comes into conflict in the way it is manifested. This will become clearer as I

continue.

In order for there to be such a thing as a 'sniper', that term must have distinct meaning from other terms describing the roles in airsoft. We all know that all AEGs are basically the same, and can be upgraded to perform basically the same. A MP5K can be used out in the field just like a M4 or a SIG550. Sure, different inner barrel lengths, but when you get down to it, they can all be equally effective doing the same thing. Because there are a few people that want to be a sniper, as compared to not being a sniper, we must determine what qualifies someone as an airsoft sniper.

There is really only one thing to determine this- the weapon. I know some people will get upset, claiming that a sniper only does certain things, but hear me out- with proper weapon definition, the roles are actually forced, and don't need to be enumerated as a second criterion. So operationally speaking, I am considering anyone that uses a proper airsoft sniper rifle an airsoft sniper.

A sniper rifle should have advantages and disadvantages over fully automatic guns. The advantage comes in the form of increased range, which of course is brought about by increased fps. Now, there is no absolute standard for what this fps should be- I propose that it should just be much higher than the other guns the sniper is going against. If all of the AEGs are stock, then a sniper rifle could be at 400fps (all velocities with .2s). If the AEGs are at 400, the sniper rifle should be at 500-550. Considering in airsoft, you can usually see through a scope further than you can actually shoot a BB, increased range is a huge advantage. Huge. Huge enough that it MUST be counteracted with a disadvantage.

The disadvantage is that of not having full-auto capabilities. Now, here is where I stray from many professed airsoft snipers- I do not think electric semi action is legit (i.e., modified semi-only AEG). I am referring to any gun where you can fire a BB as fast as your finger can pull the trigger. I am not saying these guns are not sniper rifles- just that their effect on game balance needs to be called into question. Take an AUG, modified for semi-auto only, shooting 550fps. 80 round magazine. Those 80 rounds can be fired off probably inside of a minute. That is a lot of BBs to be shooting at someone when people often associate sniping with "one shot, one kill." Yes, even though this is airsoft and it isn't as accurate as real steel- remember, the non-snipers also have the same inaccuracies to cope with.

I have used a killer bolt action sniper rifle. Having to cock the thing in between each shot was a definite disadvantage. Had I been able to fire a second shot just by pulling the trigger again, I would never miss. If that APS2 had been non-bolt action, in my mind, you would almost be cheating by using it. It already practically guaranteed a hit the first shot- but as an example, my bud MrWhoa was using it a few weekends ago. Spent time lining up the shot, and shot my stepson David in the stock of his AK47. David was then quickly able to duck for cover once he realized he was shot at, because Whoa had to load the next round manually. If it was electric semi auto, the second bb would have been in the air by the time the first one struck, and the second wouldn't have missed. And THAT is the unrealistic part. Snipers, in the real world, don't spend so much time lining up their shot and then let fly a volley of bullets. We all have heard the cliché phrase- "One shot, one kill." And to whatever level you respect that saying, the only way to adhere to it is with bolt action.

The other disadvantage, which some people consider optional, is a minimum shooting distance. In other words, the sniper cannot shoot anyone closer than 100ft away, for example. This does not have any grounding in the real world, as a sniper rifle can shoot a target at any range. But this is based on safety, in that the BB from a sniper rifle (if upgraded upwards of 500fps) can do great damage to human skin up close. But this is a decision based solely on the people you play with. It adds more strategy, and also introduces the usage of a backup weapon.

At this point, I have indicated the following- for someone to be a sniper, they should have a gun shooting much faster than the fully automatics they play with, and it should be bolt action only in order to preserve balance. With these two items in place, the role of the sniper falls into place.

A sniper thus would not be someone to participate in the standard "rush in with guns blazing" role in airsoft, which can perhaps be described as "assault." The user of the sniper rifle, the sniper, would have to lie back or to the side, out of the way. An engagement inside of the effective range of a fully automatic AEG could of course be won, but it wouldn't be wise for the sniper. So the sniper would want to use the one advantage they have, range, to their advantage.

Because of the one disadvantage they have, the slow reloading time, they would also want to be as stealthy as possible. Remaining unseen would allow the sniper to be able to reload without drawing attention to their location. Taking into account the fact that once someone knows where a sniper is, they can close the distance and remove the sniper's advantage, you see yet another reason for concealment.

Many people chose to incorporate a safety rule for snipers, such as a minimum sniping distance. When this is invoked, it adds even more aspects to being a sniper. First, you would have a need for a backup weapon, in that you wouldn't be allowed to shoot anyone with the sniper rifle inside a certain distance. More importantly perhaps, it adds even more emphasis on ranged attacks

and stealth, in that is someone knows where you are, they can get within the minimum distance, forcing you to use your backup weapon, which removes all of the characteristics of sniping.

Now, to answer some questions.

1. **What about fully automatic sniping rifles?** No such thing, both in practicality and definition. Remember, for it to be a sniper rifle, there must be something that differentiates it from an AEG. Additionally, it totally destroys the balance of the sniper role. An AEG that happens to have a tight bore barrel and shoots far is NOT a sniper rifle. You can take single shots with it, but you can do that with ANY gun on the planet, so no big deal.
2. **What about pistols?** That is fine. Nothing was ever said about what the sniper rifle (gun) has to look like. I still think some of the realism is drained, in that you don't ever hear about the Marine snipers out in the field with their Digicon Contender taking out the bad guy. I think pistols have their own disadvantages (steadying of the gun, aiming), so if you want to use one, go for it.
3. **Can I get a gun that is good for both CQB and sniping?** No no no. A gun would either be safe for CQB and too lousy for sniping, or it would be a good sniping weapon and way too dangerous for CQB. That's like asking if you can get a car that can haul 15 people and accelerate from 0-60 in under 4 seconds.
4. **Can I snipe people with my shotgun?** No. The shotguns are of course single shot, in that you have to manually load the next round yourself. That is fine. But you have no range advantage over AEGs. Lets try to keep some legitimacy to the notion of 'sniping.'
5. **What about how the dictionary says "Sniper: One who shoots at other people from a concealed place." ???? Sorry-** what airsoft player ISNT a sniper by that definition??? I try to make my location concealed no matter what gun I shoot with. Our goal here is to have an exclusionary definition, not an all-inclusive one.
6. **But isn't sniping really just a mindset/the way you play the game/all mental??** Again, it cant be. If by your account a person can be a sniper while toting around a MP5K with a drum mag... then there is no such thing as a sniper anymore.

In fact, that is a good test. If you think you know what sniping is, ask yourself if I, armed with a MP5K and a drum mag and of the proper mindset and with the right technique, can be a sniper by your definition. If so... then frankly, there is no such thing as a sniper.

(used with permission from Airsoft Players)

d. Tactical Formations in the Field

Some background information...

Airsoft games can be fast, furious, and a hell of a lot of fun - but there are a few tips and tricks around, that help to increase your chances of winning the firefights, to increase your enjoyment of the game. One of these little tricks (as it were), is the employment of tactical movement formations. These are set layouts of movement for small units, that take advantage of cover, motion, and fields of fire.

Tactical movement has three general goals:

To prevent detection;

To allow effective reaction to opposing team contact; and,

To protect the unit from opposing team fire, all while moving towards or away from an objective.

A number of techniques have been developed by the military, to meet these goals under specific tactical circumstances, and these can be quite easily adapted to the Airsoft game.

So, bearing in mind that military engagements normally take place between 100 and 300 metres (often closer), and Airsoft engagements normally take place between point blank and 30 metres, what can be done to convert these military maneuvers to the Airsoft game?

The easiest adjustment to make to these formations, is to reduce the spacing (distance) between each team member, thus taking into account the reduced range of Airsoft weapons. Before we get to specifics, however, there are a number of general points you should know, and keep firmly in mind:

Never take the obvious path.

Never walk down a road or path - it may be mined, booby-trapped, or ambushed.

Never come in through a front door if there is a side window.

Never set up a patrol base in a strategically advantageous location.

Never blindly pursue a fleeing adversary, especially in close quarters.

Never leave an objective by the same route you approached it.

Never poke your head over the top of a wall if you can look around the side.

Maintain optimal spacing.

Keep as spread-out as possible, without losing contact or concentration of fire. You want to minimize the number of people that can be taken out by a grenade or an ambush. In the woods, spread out to where each person can see the cell leader, but not necessarily the entire formation. On the street, string out so that you can't all be the target of a single burst of gunfire. But always be careful of spreading out too far - you risk being cut apart, unable to maneuver, or unable to control and concentrate your fire effectively.

Maintain eye contact.

Every ten or fifteen seconds, look away from your assigned firing arc, and make eye contact with your team leader. This keeps the group cohesive and insures that hand signals get passed on. After all, what good does it do your rear man to keep perfect watch if nobody notices his warning signal?

Remain invisible and silent.

Don't walk along a tree-line - walk parallel to it a few meters inside the woods. Avoid crossing ridgelines, especially bare ones that will leave you silhouetted. Mask your movement with smoke if you must cross open areas and the enemy knows you are there. Never talk unless absolutely necessary - even a whisper into a radio microphone will carry through an empty warehouse or the stillness of the woods.

Avoid patterns.

If you are moving within sight, or potential sight, of the opposing side, don't let them predict your movements. Stagger the movements of members of the team, roll away from cover before getting to your feet, and don't always take the most direct path.

Always think defensively, especially when stopped.

Form an impromptu perimeter whenever you pause. If you stop to discuss plans, check navigation, observe terrain, etc., anyone not directly involved in the proceedings provides all-round defense, watching the flanks and rear. When on the move, people at the rear of the formation need to watch the back, while those on the sides keep their attention on the flanks. If everybody's eyes are forward, the unit is vulnerable. Don't forget trees, rooftops, culverts, etc.

These few points cover some of the basics of tactical movement. Some specific formations are covered below; you should practice these with your team: They aren't difficult, but take some getting used to, especially in rough terrain, and practice does, after all, make perfect.

Arcs of Fire

In these formations, you'll see that I refer to team members 'covering their arcs'. The diagram to the right is a typical forward arc. The team member in this diagram is supposed to scan this area, covering it with his rifle. Any targets that show up in the arc should be engaged (i.e. shot at) by the team member.

Don't forget the basics of team playing: When you do unexpectedly have to shoot at something in your arc - let your team know, by yelling that you're engaging the opposition, and which direction you're firing, for instance, "CONTACT FRONT!"

Spacing

In tactical formations, 'spacing' refers to the distance between team members. remembering that one sustained burst of fire can take out a small group of players, you need to ensure that the distance between players in your team is sufficient to allow you to move as a unit, but isn't short enough to let the opposition mow you all down with one burst of fire. Generally speaking, half the range of a normal Airsoft gas pistol (around five or so metres) is enough to give everyone time to hit the ground and look for cover, if the team is attacked, and, while at least one member will be hit, the rest should be able to play on.

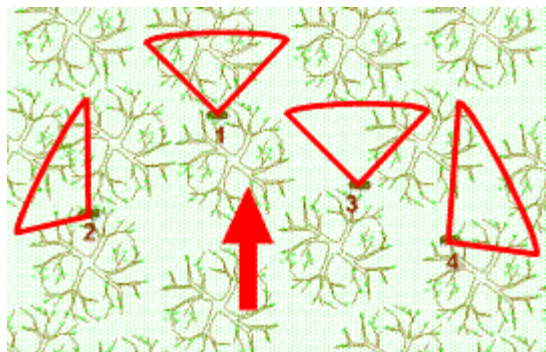
The basic tactical formations

Diamond

The diamond is ideal for fire teams operating on their own in medium to dense terrain. The four corners of the diamond give good all-around security. Spacing should be at least five metres between each team member, corner to corner, in woodland, and around half again as much to twice as much, in open ground.

However, it's not at all good for fast movement; you should really use this formation when you are expecting to travel through the other side's 'territory', where you may be ambushed from any side: This formation is excellent, in that respect.

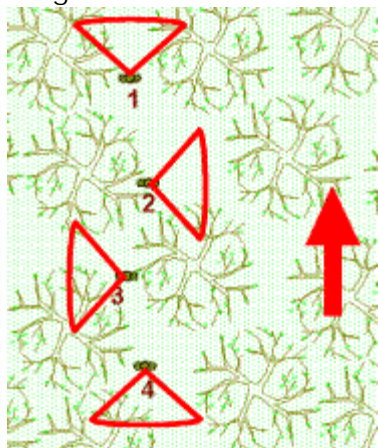
Wedge



Use the wedge whenever possible. It works well in most terrain types, and in all but the worst visibility. Keep your personnel as far apart as vegetation and visibility will allow, about five meters apart in forests, maybe twice that in open fields.

When visibility gets too bad to keep a wedge formation together, move to a file, but remember the tactical limitations of the file.

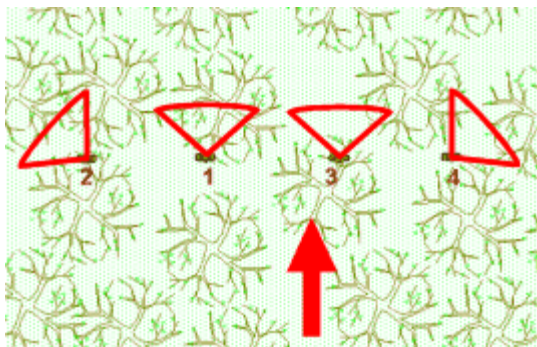
Single File



The file formation is used only when visibility prevents other formations, or when you need to move quickly and aren't expecting any enemy contact. A well-spaced file is difficult to ambush, since personnel will be too spread out to fit in a concentrated kill zone, but doesn't allow you to quickly respond to contact. Leaders should stay near the center of the formation, with heavy or indirect-fire

weapons nearby. When moving in a file along a country road, stagger your personnel on either side. This makes ambushes even more difficult, and if you have to scramble for cover, not everyone will be bunched up on the same side. Keep spacing to around eight to twelve metres, minimum.

Line Abreast



Line abreast formations are used for assaulting enemy positions. Note that the team leader should be in the center, where he can make contact with her personnel and see what is going on. The heavy weapons are nearby, where he can easily coordinate their fire.

When you move in this formation, maintain your spacing so that you move in a wave over the objective area. The tendency to bunch up as you pass over the objective is strong, especially in uneven terrain or dense vegetation. Resist it. Move forward, maintaining your spacing with the operatives on either side of you. Each individual must stay within his or her lane to ensure a clean sweep of the area. Otherwise, you may pass enemy personnel or positions, and this formation provides little protection against attacks from the rear or sides. Each lane should be no less than five metres apart.

Also, be careful to keep moving at a pace even with your team. It's easy to get too far ahead or to fall behind in this formation, and that will leave gaps and expose your fellow team members flanks to the opposing side.

Don't use this formation to approach your objective, to leave it, or to travel in the field. Use it only in direct assaults: It's simply too vulnerable for other situations. Once you're in the line, move quickly and decisively - your speed and the impact of your assault is the only thing that counteracts your lack of security.

All round defensive positions



Security is one of your principal concerns in a tactical environment; you never know what direction a new threat is going to come from. It's important to keep attention focused outwards, even when dealing with a problem (such as trying to find your location on a map) within the team.

Believe it or not, maintaining such a focus on security requires coordination. The simplest pattern to adopt is the 'All-Round Defence', a formation that, when practiced, becomes easy to adopt, makes communication and coordination simple, and is highly versatile.

The basics of the 'All-Round Defence' are simple: the point man drops prone or to a knee at the twelve-o'clock position. The second team member drops behind and to the right, facing outwards; the third a bit further back and to the left, facing the opposite direction. The remaining operatives alternate sides, except for the last, who takes up a rear-facing direction. If there's cover for individuals (trees, crates, whatever), use it, but don't deform the circular shape too much or you'll lose the benefit of easy coordination.

The team now has security facing all directions. By forming a sort of oval, instead of a circle, communication and movement within

the perimeter is simple, but the team members along the flanks should leave enough space between them to form an unobstructed corridor, so that individuals can move as needed without stepping on each other or exiting the perimeter.

The diagram, by the way, shows how you should arrange yourselves during night games. To remove the need to speak, feet should be touching, so that if a team member spots a member of the other side, all that he needs to alert other team members in the all-round defensive position, is lightly tap his feet to those of the neighbouring team members. Silent comms is the key, of course!

Obviously, it's easiest to drop into the 'All-Round Defence' from a file formation, facing in the original direction of travel. But with a little practice, your team should be able to drop to an 'All-Round Defence' facing any direction, from any movement formation, almost instantaneously. You should use it to create a temporary secure position any time you've got to pause in an Airsoft game.

In conclusion

As you can see, it's all fairly straightforward. Movement in the field doesn't just cover formations, though: There's personal camouflage, noise discipline, the way you actually place your feet, and so on.

e. How to Fill Gas Blowback Mags Flawlessly

(From Filipino Airsoft www.filairsoft.com)

This is from our numerous experience with Gas-Guns (pistols only). This information is not all inclusive, and is subject to more testing, and opinions. This is up for more discussion and experience you all have had also. But, the findings are based on real-testing, and experimenting. I hope this helps everyone (newbie and veteran alike) on their gas-gun knowledge.

How to use a gas gun:

1.) Fill the magazine, when it is upside down 180 degrees. Make sure the can is ALSO upside down 180 degrees from the ground. Make sure they are both perfectly lined up vertically, not tilting sideways at all. Make sure the nozzles get a firm seal, and proceed to fill the "Liquid" into the mag. Filling time depends on the mag capacity. A normal handgun mag is generally about 3 seconds. A 50-round mag is usually about 5-6 seconds. This will insure you get a full charge of gas, for the amount of BBs. Be sure not to overflow your mag with gas. Do not fill for more than the specified time. Filling the mags is a precision job, and requires skill. Do not mess this up, or you magazine will be toasted.

2.) What not to do when filling the mag: If you fill the mag, and gas-spills everywhere, STOP. Let the magazine warm up before attempting again. This is usually about 2-3 minutes. If you get a tight seal, and fill correctly, leave the mag alone. Do not use the gun till the mag warms up to room temp. usually about 2-3 minutes to warm up. Also, be sure not to overfill the mag. If you load it up for 15 seconds, you will probably blow the seals, or damage them. Do not fill for more than 6 seconds max, ever. Tapping the big metal button on the side of the mag will discharge the GAS reserve. Do not do this! It will prematurely wear the seals out. Instead, fire the gun until it is out of gas, or almost out. This is the safe way to discharge a gas-gun.

3.) Fire the gun in WARM weather. Using during the cold seasons are not advised. They will not cycle as well, fire good, and will use more gas than normal. Rapid-firing of the gas-gun will also cause the gun to freeze up, resulting in improper firing. This is usually not a problem in the Summer months though.

4.) Use HIGH grade BBs for your guns. In the KSC Glocks, cheap BBs have a tendency to Jam in the magazine well, preventing proper firing. Marui and Excel BBs are slick enough to work properly in the guns. Taiwanese .20 BBs are highly unrecommended. Using .12 is not advised. .25 are good for the Glock 18 series, and other Japanese guns too.

5.) Gas-gun care: Be sure to keep your slide and all moving parts slightly lubed with SILICONE oil. Do not use anything else. 100% pure silicone oil is recommended, as it is safe for use on plastic and rubber parts. You can get this at any hardware store, Lowes, Home Depot, etc. Hoppes #9, wd-40, and other products will hurt the guns. Lubing the slide will keep the gun working fresh. Not cleaning the slide, and lubing it will cause jams and improper function (like real guns). You will have to field strip the gun to access the slide and parts. ALSO, be sure to spray silicone oil into

the top nozzle of the Magazine well, every 5-6 magazines worth shot. This is done, by pressing the big-metal button on the side of the mag all the way down. While down, use a quick spray of Silicone into the rubber top-part (into the mag). This will keep the seals properly lubed for a lifetime of use. This was translated from the KSC manuals (japanese). Just, never overkill the lubing. This is gunk up parts too. Just use enough to keep a thin surface lubed.

6.) Proper gas type. This is still a bit debate among airsofters. Here's are recommened list of gases for guns. HFC 134a greengas (kwc brand, Marui, etc) is good for Japanese made guns. The TOP (aka, Top green gas) is made for non-blowback taiwanese, and other Taiwanese guns. Using metal slides makes use of HFC134a useless. We recommend the top gas for use with heavy slides. We do not recommend PC Duster gas for guns. They contain no Silicone, and are not factory authorized. Plus, the cost is not much more for the proper gas. That is the general idea, now for a list of guns, and recommened gases:

KWC: use TOP gas only for all guns. HFC134a (made by KWC ironically) is NOT recommended.

KSC/KWA: use HFC134a gas. Although, we recommend TOP gas for G-18, and have not seen any problems with KSC using top for other guns. Top gas seems fine in the 17/18 series, TMP, etc.

Western Arms: Suppose to use HFC 134a gas, but have never heard of any problems with TOP gas.

KJW, Y&P, STTI, HFC, other Taiwanese guns: TOP GAS only. Using HFC134a is not powerful enough.

Maruzen, Marui: Do not use TOP gas. HFC134a recommened only.

Marushin: Uses hfc134a for ALL guns. Except, the M1 carbine, works well with TOP gas.

Tanaka: Confirmed reports of using both gases okay. TOP mixed with hfc134a has good results.

Storing your gas-gun magazines: Make sure you keep a little gas left in your magazines when done using them. Just enough for about 1-2 shots or less left is perfect. Do not keep them at full charge, nor totally empty. Keeping enough gas (tiny amount), to keep the seals tight is good. Some say keeping the mags empty is best, but we do not recommend that. Keeping a small amount is best from our experience.

This information is for veteran gas-gun users and newbies alike. They are your guns, do what you want with them. But, this is solid information we have gathered over the years and researched. We have handled about every gas-gun made, and tested most of them. This information is also from other gas-gun veterans and Japanese gas-gun manuals translated.

Further steps you can take...

If you want to make your mag so it doesnt spill any gas (its not leaking, its just that the nozzle of the can isnt completely lined up with the fill valve) heres a quick home project that will take about 10 minutes to make but save you some gas.

Get a rubber band, it should be about 1CM thick (the ones commonly used to wrap newspapers. I believe they are size 64)

Now, cut about a 1cm square piece off of the rubber band.

Take a pushpin and push it through the center of this square (dont push it through several times or it may be too large)

Now comes the most time consuming part. You need to trim the square into a little circle, when I say little I mean it should be about 1 or 2 MILIMETERS in diameter it should be SMALL! Make sure the hole from the needle is still in the center.

After having cutout the tiny circle with the tiny hole in the middle, take the tiny circle and slide it onto the nozzle of the green/hfc134a gas can. Take this can and invert it and the magazine that you wish to "fix". Put the nozzle of the can onto the valve but dont press (you dont want gas coming out). Now, get something thin and small (a needle MIGHT work but you may end up putting more holes in your rubber band and need to start over) and push the rubberband onto the fill valve. Remove the can, keeping the rubberband on the valve and NOW fill the magazine up. (IE press the can down completely so gas starts to come out.)

What you've just done is make a O-Ring for your magazine! This is what KJWs come with.

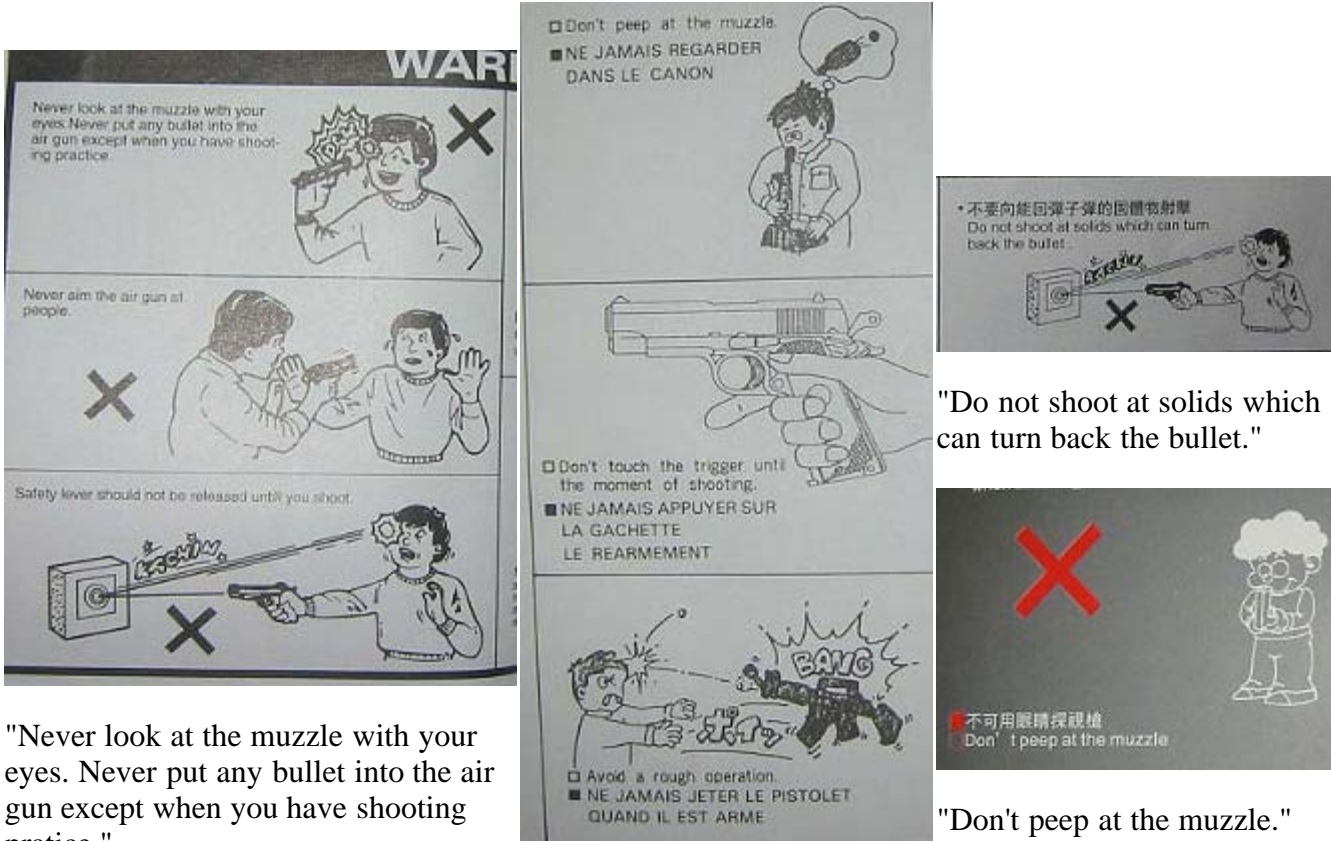
This idea is not mine at all. I have seen it floating around the net a few places but I've never heard of people talk of it much. Special thanks do go to my brother for being the first person that I know to do this. (He did it to my KWC M92FS which now fills 99% of the time FLAWLESSLY!)

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CHAPTER VII: Fun and Humor

a. Funniest Airsoft Warnings

Nearly all airsoft guns are manufactured in Asia, and the products are new enough that all the packaging with the guns are made by the manufacturer. Oddly, the English translations are often times poor, and the accompanying cartoons are really funny. Here are a few of our favorites. Pay special attention to the looks on the characters' faces as they take BBs in the eye.



"Never look at the muzzle with your eyes. Never put any bullet into the air gun except when you have shooting practice."

"Never aim the air gun at people."

"Safety lever should not be released until you shoot."

"Don't peep at the muzzle."

"Don't touch the trigger until the moment of shooting."

"Avoid a rough operation."

"Do not shoot at solids which can turn back the bullet."

"Don't peep at the muzzle."

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