

# MODERN FIGURES CAMOUFLAGES





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In this new release of AK Learning series, we will tackle modern camo from the viewpoint of military figures: the type of actual uniforms and the manner to represent them in scale with all the techniques and tricks. Working with modern figures implies knowing the new types of camo in order to replicate them accordingly. Again, we have gathered the best modelers in the World in this subject to show you how to attain hyperrealism with your figures.

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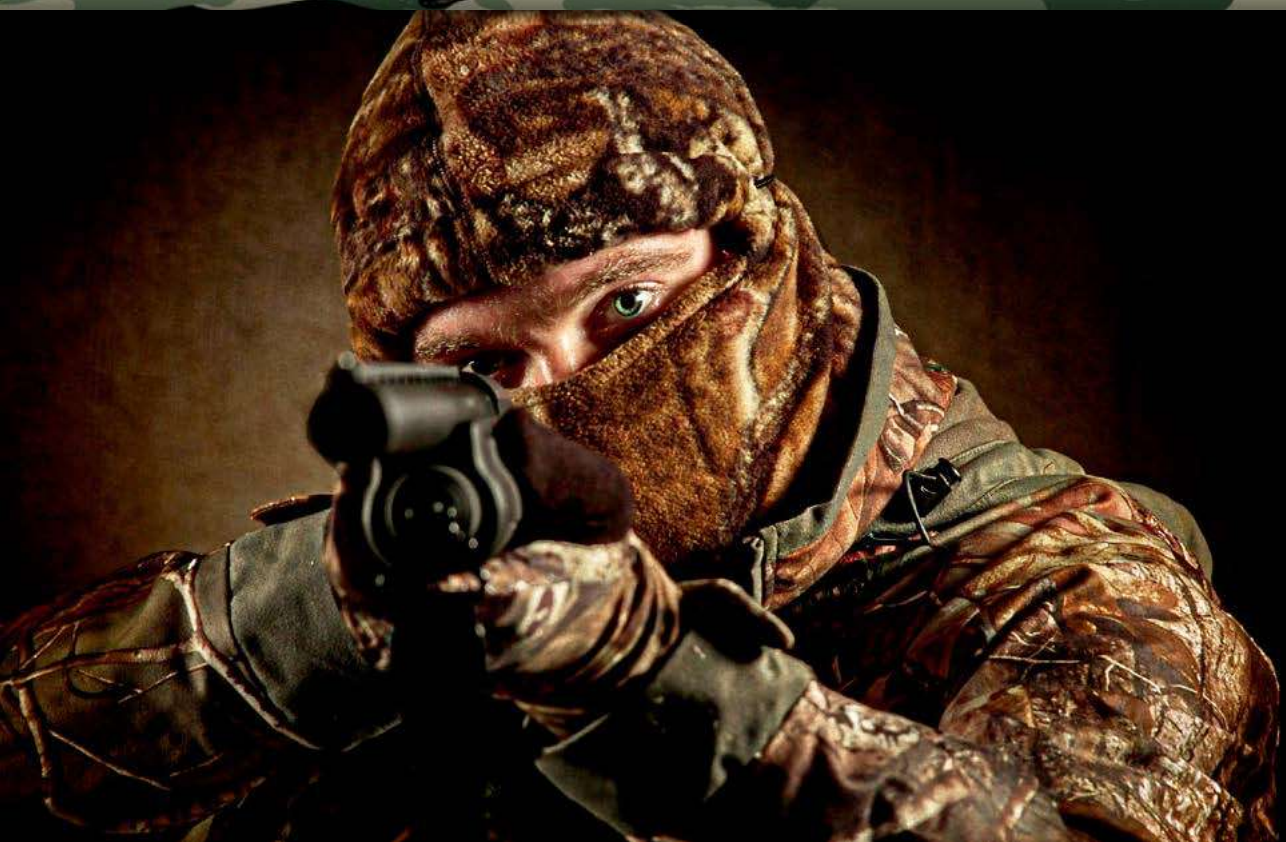
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# INTRODUCTION

During the last few years modeling dedicated towards modern vehicles and figures has gained over time relevance and followers, which have taken figure painting close to perfection. The figures are as important as solo elements as well as complements to tanks or dioramas, thus we must not neglect them.



By definition, camouflage is the act and the result to hide or conceal something by means of an appearance that generates confusion. In nature we find examples of camouflage or mimicking quite surprising and perfected by natural evolution. This evolutionary step provides the necessary advantage to survive; transforming in invisible some living beings face to their predators or preys.

In the military context, camouflage (camo) appears because of the need to protect the fighting force due to the modernization of the weaponry, seeking that the soldiers or vehicles would pass unnoticed in front of the eyes of the enemy. The purpose of this technique is to blend with the surroundings following the principle: "if they can't see you, they cannot shoot you". When camo is successful, soldiers, tanks, and planes can move around without being detected by the enemy, thus gaining a considerable edge over the enemy. This way, military operations and surprise attacks are rendered easier.

In modeling, when we are faced with figures set in the contemporary era, it is unavoidable to come across camouflages, with all the questions and doubts that they entail. When starting the research we discover that there are many shapes, colors, and patterns that bring about even more questions. In this new publication our intent is to answer as many questions as possible, so that camo gear would not be an issue, but a fun and a value added feature to our works.

Through practical samples we will provide knowledge on existing camo shapes and patterns; we will point out what colors are used according to the context and surroundings of our figure; and we will show how to apply camo and the necessary techniques to integrate the entire work so that our creations would gain realism. On the other hand, we will not approach all the available types of camo, because it is unnecessary and it would overwhelm the reader, but we work with the fundamental examples and techniques so that the modeler could take them as a guide and extrapolate when working on any project involving camo.



# EVOLUTION OF THE MILITARY UNIFORM

All along history the military uniform has been defined as the ensemble of clothing used by soldiers of diverse nations to differentiate among themselves and among civilians.

Up to the end of the XVII century, the clothing used by soldiers and officers were the same as the ones used by civilians, but adapted to the military campaign. On top of that, they were not issued by the military authority, but it was the soldier who did procure his clothing. It is from hereinafter that starts the military uniformity, as a need to identify, without doubt, all the soldiers. The uniform provided a better internal organization and served as an external sign of discipline and military strength.

The military uniform is a picture of the time when it was in use, being able to ascertain through it the social, political, economic, and technological constrains. It sheds light over many aspects of the everyday life of a nation at a certain time because, unfortunately, war is an inherent part of human mankind through history. The military clothing is also an expression of the tradition of nations, so it must be respected and kept as material evidence of humanity.

We can differentiate between "gala uniforms," which are elegant and made with quality textiles for gala events, and "functional uniforms," which are more comfortable and apt for combat. This learning deals with the second ones, and with modern designs.

Up to the XIX century armies had to use bright colors, with bold and impressive designs. The reasons were that this would intimidate the enemy, promote group cohesion, allow a better identification of the units under the fog of war, and attract recruits. Plus, the bright uniforms, such as the red colors used by the British, tend to prevent desertions. They were uncomfortable and quite unpractical on the battlefield, but favorable to the type of war of those days.



G. Rava



G. Rava



G. Rava



G. Rava



G. Rava

PREHISTORY

3,500 BC  
(Advent of writing)

ANCIENT AGE

V Century  
(Fall of the Roman Empire)

MIDDLE AGE

XV Century  
(Discovery of America)

Technology advances at an accelerated pace, as so does the weapons industry. The creation of modern weapons increased the precision and speed of the shot, and thus the evolution of the way of conducting war. Combats in closed formation and open fields gave way to combats based in more or less static positions, where your head could be blown away if seen by the enemy without needing to be at close range.

Uniforms gave up the bright colors to change to khaki, more appropriate to go unnoticed on the field. Also, soldiers took up the preparation of their own equipment, painting their helmets or dyeing their uniforms. Sometimes, over the fresh paint they would pour soil, or mud on their uniforms. These were great methods to blend with the environment, being a very common tactic in trenches of the early XX century. The first military unit in camo was created by the French Army during the WWI.

Thanks to the production in mass of the printed fabrics during the period in between wars, the camo uniform became more common during WWII. At first, it was not common, a sign of elite units, to the extent that the captured camo uniforms were reused by the enemy. The uniforms started to become customized to the environment as well as to the season and the climatic elements.

After WWII and up to date, camo patterns have been evolving. Factors such as the field of operations (jungles, deserts, etc.) and comfort (taking into account heat in summer and cold in winter), are greatly considered. The military industry works hard so that soldiers will have high-quality uniforms, creating fabrics, patterns, colors, and prints to make them as invisible as possible when facing the enemy, as well as providing them with protection and comfort. It is so complex the study and work of the camo designers that very often the uniforms are totally renewed thus substituting in the entirety the existing one.

Nowadays it is striking how camo clothing and equipment have been adopted by civilians as urban fashion as well as for open air sport activities. On the other hand, as a curious note, there are countries such as Barbados and other Caribbean nations that have strict laws forbidding the use of camo clothing by non-military personnel, even tourists and children. The reasoning is that tourists could be mistaken by either government or insurgent troops and come under fire.



MODERN AGE

XVIII Century  
(French Revolution)

CONTEMPORARY AGE

# TYPES OF CAMOUFLAGE

Research in the field of camo must fulfill two premises: the first one is to conceal and blur the soldier's shape, blending it as much as possible with the terrain to avoid being seen by the enemy. The second one is "disruptive," which is to make it difficult for the adversary when focusing when aiming the weapon, thus being a hard target to shoot at. There is a plethora of camo colors that combined will render a uniform best suited for each occasion.

Camo's effectiveness namely depends on its "advantage regarding the terrain" where it is employed. According to this premise we can classify the type of camo in reference to its area of operation:



**FOREST:**  
Appropriate for combat in areas with lots of vegetation.



**DESERT:**  
Designed for war in arid and rocky areas.

**WINTER:**

Ideal for regions with snow.

**URBAN:**

Designed for combat in dim areas in cities and urban settings.

**UNIVERSAL:**

This is an all-purpose camo.

Another way for classifying types of camo is according to the patterns used. When we speak about pattern, we refer to the shape of the colors on the uniform:



SOLID



SPOTTED



TABBY



PIXELATED OR DIGITAL



MULTI-SCALE OR FRACTAL

**SOLID:** Monochromatic uniforms, no patterns. Most common are khaki, black, and brown.

**SPOTTED:** The pattern is made by a base of curved overlapped patches.

**TABBY:** This pattern resembles the stripes of a tiger. **PIXELATED OR DIGITAL:** Computer made. It solves the issue of distance because it is useful in proximity as well as for far away.

**MULTI-SCALE OR FRACTAL:** Its purpose is to provide camouflage at long distance. It combines patterns at different scales, and can incorporate the pixelated type.

Once described the different types of camo uniforms, we will highlight the most important ones due to their proven efficiency at the battlefield. The modeler will research with what type of camo is equipped the soldier he or she wants to model. For said purpose one needs to compile information regarding location and the period in question. This is research is important to keep the historic accuracy.

**FLECKTARN:**

This type of camo is the result of the evolution of the one used by the SS troops during WWII. It is effective in wooded areas of Central Europe, in particular Germany. Besides Germany, it is also used by other countries such as Japan, China, Denmark, etc. It consists of 5 color spots (shades of green, reddish brown, and black.)



JL Cernada

**DUCK HUNTER / FROG SKIN:**

Embraced by the Australian military, it is another survivor of WWII. Developed by the USA due to the urgent need to incorporate a camo uniform. Ideal for jungle warfare and it consists of 5 colors of almost round and quite large spots.



www.defence.gov.au

**TIGER STRIPE:**

Even if its origin is uncertain, it was used by the South Vietnamese troops during the Vietnam War, and was adopted by the US troops due to its great effectiveness. Its name refers to the resemblance to the tiger' stripes. It has narrow brush type stripes in green and brown colors, and wide black stripes, all printed on a light olive or khaki fabric. It is still being in service by South American countries.



Kemberly Groue United States

**DESERT 6 COLORS & 3 COLORS:**

First camo uniforms developed by the USA for desert operations, being the 6 colors the replacement for the 3 colors due to its best adaptation to the arid environment of the Middle East. Still being very much in service by the US troops deployed in Afghanistan. Both use brownish and greenish spots.



Louis Braccese United States DoD



#### **MARPAT:**

It is a survivor of the era of digital camos. After the scandal caused by the universal uniform, the US Marine Corps adopted this type of uniform. It was also a marketing strategy, in order to achieve a trait of self-identity. It is very effective and there are three versions: wooded areas, desert, and snow.



#### **WOODLAND M81:**

It is the camo best well known and most widespread all over the World, as well as one of the most effective ones. Almost all the countries in the World have employed this type of uniform at some point before adopting the Multicam. At the time of the scandal of the universal uniform, the specialized US troops that operated in wooded areas in Afghanistan requested to have back their old M81 uniforms that were decommissioned in 2005.



#### **URBAN CAMO:**

Is one of the most effective camos, but on the other hand it is one of the most eye-catching ones. It is just a Woodland but with white as the predominant color complemented with grey and black. Even if designed for urban combat, it is useless in this setting, being the snowed terrains where it can have some effectiveness. For this reason it is not used by any army in the World.



#### **MULTICAM:**

It is an all-terrain camo, meaning that it is somewhat effective in a wide range of settings. This characteristic has a drawback: it is not totally effective at any setting. The pattern of this chameleon uniform is made of multiple spots of several shades of green, brown, and khaki. This array of colors, along with the size of the spots, are the result of its ability to blend in almost any scenery. It is currently in service in more than 40 countries.

# TOOLS FOR PAINTING MINIATURES

We will not explain again in this learning the tools because they are the same that we have talked about on previous editions. Only point out that, if possible, we should choose high quality paintbrushes in order to paint figures with fine details; possibly this is one of the secrets of the great masters of figures.

The ideal brushes are made of natural hair, such as Marta Kolinsky paintbrushes, but if we are unable to get a hold of one, the softest synthetic brushes are also good, and the most important feature is a sharp tip rather than a thin brush.

Also, the airbrush is a good friend, but only for the first steps, as we will see in this manual.



Other specific tool that can be very useful when painting figures is a figure holder. It will allow us to work with ease.



Last, but not least, the moist palette. Although not long ago it was not used by many, now it is an indispensable tool for many. It is made of a container with a sponge that keeps humidity under a special paper where the paint is placed, thus keeping the paint fresh, and color mixing can be done on the paper. It can be airtight, and it can even be kept in the fridge in order to preserve the freshness longer. Acrylic paint tends to quickly dry due to the evaporation of water, but with the moist palette we extend its life thanks to the moistness.

Preferable paints for figure modeling are acrylics because in addition to avoiding toxicity, acrylics allow to work at a fast pace with very good results and to shorten the drying time. With acrylics one can work with different colors just minutes apart. Also, they are very inexpensive and there are a good array of colors and brands to choose from, with different saturations, densities, and features to satisfy the preferences and needs of each model.



It is also possible to paint with oil based or enamel paint, but drying takes far longer. If we do not mind the wait, we can achieve very good results with these paints. Oil based paint, because of its properties and the ease to mix colors and apply veiling, is a much appreciated paint by some modelers for its effects in figures.



# SETUP, ASSEMBLING, AND PRIMING

When we work with figure modeling, we find our models totally or partially disassembled, regardless of scale and material, which is usually resin or plastic. The first precaution is to make sure that our kit contains all of the pieces and that they are in perfect shape. We also need to store all the pieces in a safe place until the assembling.



Then, we will check all the pieces of our project. If needed, we will detach them from the feed sprues. We will eliminate any trace of the mold lines, flash, and excess material that we see. We will use the appropriate tool for each job, such as side cutters, files, sand paper, or hobby knife.



Most of the modern figures have their own fitting at their joints, but even if they do or do not, we can reinforce the unions with metal rods, even more if we are dealing with large figures or delicate pieces. If the scale or the dimensions of the piece make it impossible, we will have to put them together without the reinforcement rod.

In order to reinforce the unions, we will make an opening in each piece to join in order to insert a metal bolt that will make the union more resistant.



It is unavoidable to have gaps between the unions after gluing the pieces together. These gaps are an eyesore. To mask them, if they are small in size, we will use putty or any other product to fill them. It can be an acrylic or acetone based product, so we can apply with a brush.

This diluted putty will completely fill these small holes and flaws.



If we want to modify the position, fill larger cracks, or add components to our figure, we must use a more consistent molding product. We can use a bi-component putty.

The market offers a myriad of putties for modeling with different characteristics of texture, drying time, and hardness. A standard putty will suffice.



Whatever product we choose, we must follow the manufacturer's instructions and the drying time in order to later perform a surface sanding to eliminate excess material and blend in the putty.



Before priming, it is recommended to clean any dust or grease that may have ended up on the figure. For said purpose we will use a clean cloth damped in alcohol and we will wipe the entire figure.

Once done with the setting up and assembly of all the pieces that we may find adequate (usually we try to leave the head for the end, if possible,) we must prepare the figure for the painting job. We need a product that we can use for fixing the paint to the figure as well as for visually unifying the color of all the pieces of our project in order to detect any flaws. For said purposes we can take two paths:



1. If our figure is of small scale or we do not want to complicate matters too much, the ideal solution is to use a neutral color. We can prime with spray or airbrush. If we choose this path, we recommend mixing the primer with its thinner, thus we will end up with a perfect consistency to apply several thin layers until we achieve a homogeneous color. We have to caution that the successive layers of paint slowly cover details, although at large scales it is almost unnoticeable. We can minimize this undesired effect with an adequate thinning of the paint when layering as well as during the different painting phases of the figure.

2. If we are looking for something more complex but at the same time that will help us when painting our figure, we can resort to lighting our work through priming. This consists in creating on our figure a perfect radiography simulating how we would like light to act on our work. Also, besides helping as a visual guide, it will help to achieve a greater contrast between lights and shades. The first step to achieve our outline in lighting up our figure is to apply a homogeneous and consistent layer of black primer.



The most important technique is to set the lights made by the lighting that we are going to simulate. For said purpose, we will use a white or grey primer, and we will dilute at equal proportions with the appropriate thinner. We fill our airbrush and we shoot at our figure from the direction of the incoming light rays. This will transform our figure into a black and white sample of light and shadows, and will help us to identify them when applying the final colors.

At this point we will be done setting up the figure for the painting work. We recommend taking pictures of our project at this moment, so that the information provided by the outline of the figure will not be lost and we will be able to come back to the pictures for reference when painting. We also recommend touching the figure with our bare fingers as least as possible, because we would leave traces of grease on them, so we suggest using gloves and holder mounts.

This section of the work may turn out to be boring or tedious, but its proper execution will considerably allow us to save work latter when painting. We must be meticulous and try to achieve a finish as perfect as possible.



## SAMPLES ON THE FIELD

The purpose of this series of books is to offer the modeler a reference and a starting point so that he or she can progress at this hobby. In this specific volume, the best way to show the painting of the modern camo uniforms is to apply it to the figures, and to observe the techniques of patterns in order to reproduce them latter onto any type of figure, regardless of scale.

On the next pages we will see the different types of camos on various figures, with easy to follow practical samples, and some tricks to achieve the results.

In this volume we will also focus on the history of the units or the individuals that wore the uniforms at a given time, because with this hobby we can enjoy the historic aspect as much as the artistic feature. Understanding what we are rendering will help us interpret and appreciate the miniature even more.



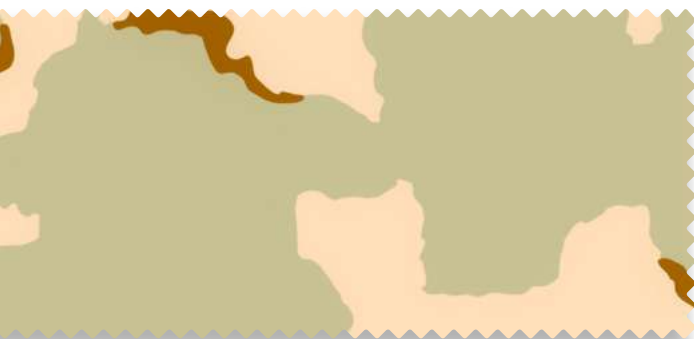
\*Most of the colors used in this guide are from our brand AK, but you may use any other brand that you may have on hand.

# US 3 COLOR DESERT. LARGE SCALE AIRBRUSH & BRUSH PAINT CHRIS KALE "THE LEGEND"

**AUTHOR:** Eduardo Fernández Rodríguez.

**MAKE AND SCALE:** Mitches Military Models (120mm).

**CAMO TYPE:** US 3 Colors Desert (DCU).



The desert camo uniform (DCU) is made for an arid environment, and it was used by the US military from mid 1990's up to early 2010's.

It is made of a tri-color pattern of dark brown, pale green, and beige.

It was created to replace the six color desert camo, also known as "chocolate camo," and considered inadequate for most desert combat scenarios.

DCU, also known as "coffee stains camo," was basically created for a desert and non-rocky battle field, a very common scenario during the Gulf War. Even though in July 2004 it started to become replaced by a universal camo pattern, the soldiers went back to wear the DCU due to their dissatisfaction with the new uniform.



**USUARIOS:**

- U.S.A.
- Israel (Special Forces).
- Iraq
- Saudi Arabia.

**BIOGRAPHY CHRIS KALE:**

This soldier, member of the U.S. Navy SEALs, became famous for being the most lethal sniper in the history of the US military. During the Iraq invasion in 2003 and the Gulf War he was nicknamed by his comrades as "The Legend," and the Iraqis knew him as "Al-Shaitan Ramad," the devil of Ramad.

At the "Second Battle of Fallujah," Kyle shot 40 insurgent Iraqis, but it was in the city of Ramadi where he would attain the largest number of confirmed objectives. His fame spread to such an extent that the Iraqi insurgency placed a bounty over his head. He was credited with 160 hits, but he alleged having eliminated at least 250 insurgents. Chris was awarded two Bronze Stars and three Silver Stars after four campaigns.

After his retirement he dedicated his time to help war veterans with PTSD and wounds, taking them hunting or target practicing at the range, believing that this would relax them and have a therapeutically effect. On February 2nd, 2013, a Saturday, Kyle and his friend Chad Littlefield met at a shooting range to help Eddie Ray Routh, a Marine, to overcome the recurrent traumas he suffered since he returned back home from the Gulf War. Eddie greeted Kyle and Chad by shooting them six times each, causing their death.

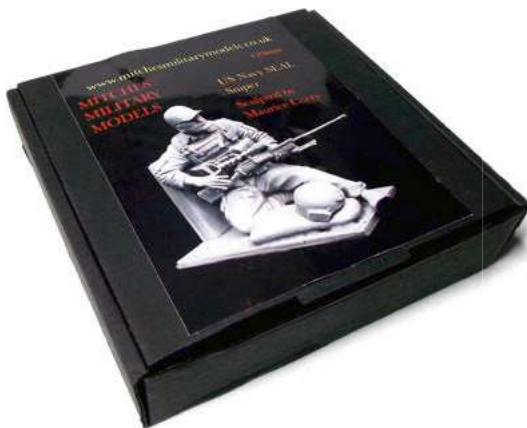
Our protagonist came back to fame after his story was made into a Hollywood movie, "American Sniper," directed by Client Eastwood.



[https://commons.wikimedia.org/wiki/File:Chris\\_Kyle.jpg](https://commons.wikimedia.org/wiki/File:Chris_Kyle.jpg)

**MINIATURE:**

This figure, manufactured by the British brand Mitches Military Models, is made of resin at 120mm scale. It depicts an American sharpshooter, although not Chris Kale, but the features and the uniform resemble Chris to perfection. The model is in multiple pieces plus a portion of ground (that we will not use.) As usual with this manufacturer, even although the figure is of great quality, it requires lots of work for assembly and set up. It will be a great camo pattern sample for us.



## FACE PAINT:

To achieve the desired skin tone we will use "AK 3010 Flesh & Skin colors set." For each figure you can use a different base, or mix a couple of tones, so that each figure will have a different look, as it is the case in real life.

The first thing is to paint the eyes, trying to detail them as much as possible since the scale allows us to do so. With a brush we paint all the skin using AK310 Base Flesh, very carefully so that we will not mess up the eyes. This step can be done in reverse order.

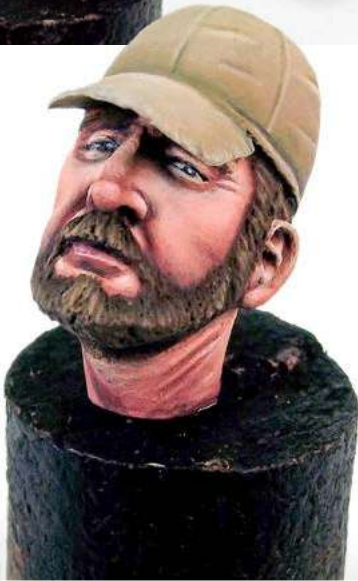
By adding lighter tones to the base color of the skin we accomplish light effects on the face. We will first use AK3012 Light Flesh and then AK3013 Highlight Flesh. Gradually, we will light up the areas with higher light exposure.



For face shadows we will use the veiling technique. We will apply very diluted AK 3014 Shadow Flesh color to control the transition areas. Last, we will do the same with color AK3016 Cheekbone Glaze. For the profile we will mix the last shadow with black.



The baseball cap has an ochre color, very characteristic of the desert uniforms. We will try to mimic a very worn-out cap since it had been used many times and we do not want it to look new.



To finish the figure's head we have decided not to leave a plain baseball cap, but to add some kind of logo. We have chosen the icon of the comic "The Punisher," quite used by the Navy Seals. We decided to apply a burgundy color to create contrast, but being a warm color it will help to bring harmony to the ensemble.



## UNIFORM:

This uniform, when talking about camo uniforms, is one of the simplest around. Nevertheless, it is also one of the most used due to its proven functionality. To start our work we choose the lightest color because it is the predominant one, and also it will be easier to paint the other color spots over it. To achieve a homogeneous color and speed up the process we start working with the airbrush, so we start with the base color, AK3033 Light Sand, 50% diluted with AK712 Thinner. We will paint the entire figure, even if we had taped some areas, until we achieve a uniform color.



We make the shadows by mixing the base color with dark ochre, and for the darkest ones we add a little bit of black and dark blue. We shoot with the airbrush from below in order to reach only the areas with less light exposure.



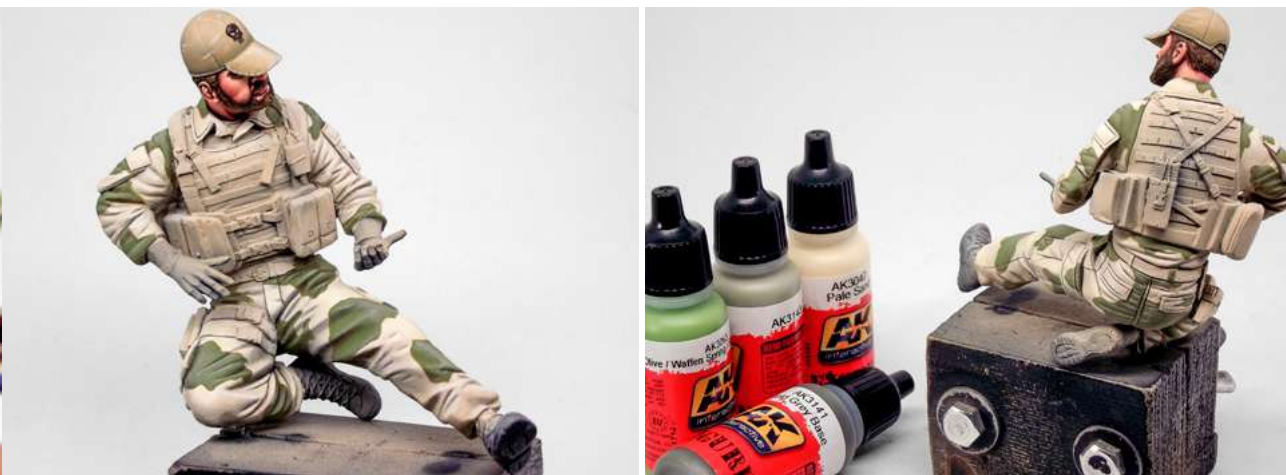
The lighting is made by adding little by little AK3047 Pale Sand to the base color. We shoot our airbrush from the light's direction, that is, from above.



We finish our work by lighting all the creases by brush, lighting them up even more than in our last pass with the air-brush. We will also add more intensity to the shadows outlining with black all the seams of the uniform.



Next, we will paint the green spots of the uniform. We choose a color that we will make by mixing an equal ratio of AK3143 Grey Green and AK3063 Golden Olive. We will shape the spots as close as possible to the ones of the photos that we used for gathering information. We will apply lights and shadows where required by the fabric's creases.



The third color is found on small strips bordering the green spots. We will use a reddish brown, AK3031Brown Leather, adding, as we previously did, the lights and shadows corresponding to the fabric.



The trick of all these camos is the patience with the brush and the correct thinning of the paint. The paint must not be very thick (or we will notice the paint's contour) nor too diluted (we would end up with a veil.) At any rate, it is best that the paint be somewhat diluted and to perform the work in several passes.

**EQUIPMENT:**

One of the most important points when working with modern soldiers is to detail their equipment. Sometimes it is exhausting, since it is considerable made of lots of different materials. In order not to make mistakes, we will take guidance from pictures. In our case, we will rely on the equipment featured in the film.



The belt and the holster are black. To apply the base color for lights and shadows we use AK3001 Panzer Crew black uniforms set. We will mimic the nylon texture with color AK3067 Black Tan. We will paint, as aligned as possible, rows of small dots.



The next step is to paint the tactical vest and its pockets. The base color for this piece is AK3076 Canvas Tone. We will apply lights to differentiate the volumes and creases. The outlines are very important in order to differentiate the different pieces of the vest so that it will not look like a solid mass of color.

Our vest has two large pockets. We will apply texture so that they will not look dull. To simulate cloth we will paint parallel stripes in the shape of a net, making it very eye-catching. For said purpose we will use AK3047 Pale Sand. We will apply shadows after this phase. To finish the vest, we will paint the straps.



**WEAPON:**

Chris Kyle was one of the most lethal sharpshooters in history, so we find lots of information regarding the weapon used in his missions. We will try to simulate its look.



We apply the base color to the whole weapon. We will start with a darker color than the real one so that all the lines of the weapon will be visible when applying lights. To get our base color we will mix AK3033 Light sand, AK3111 Desert Uniform base, and Black. We apply smooth layers in order not to cover details, until obtaining a solid color.



We will light little by little applying AK3033 Light Sand to the base color. We will finish the work outlining with AK3028 Ivori, tracing all the edges of the weapon. We will also make small scratches to the weapon to simulate usage.



In all pictures that we have seen, and in the movie, we notice that the weapon is somewhat beaten, showing small chips. We use a piece of sponge and black paint to simulate said effects.



To better incorporate our figure into the vignette we are going to set, we must dirt it a little. We will use Abteilung pigments, one for a concrete look (the figure will be in a house in ruins) and another one for a soil look (since it is a desert zone.) We will apply them in a very controlled manner, very diluted with thinner, in areas subject to getting dirty.



**VIGNETTE:**

We have a wooden stand sized for ARRIMODELS to which we have added a section of a rooftop terrace in ruins that we have made with Balse Foam and a plasticard sheet. Once fixed, we start the painting and weathering process.





# MULTICAM. SMALL SCALE PAINTBRUSH PAINTED

**AUTHOR:** Eduardo Fernández Rodríguez (paint) / Laura Atalaya Carrasco (terrain).

**MAKE & SCALE:** Airborne Miniatures (1:35).

**CAMO TYPE:** Multicam.



This camo pattern was designed in 2002 by the US Armed Forces to combine in one uniform the Woodland and the Desert uniforms.

The concept on which this camo is conceived is the way the brain perceives volumes, colors, and shapes. The end result, after years of research, is a uniform that combines colors, shapes, and a reflective fabric that blends the silhouette of the soldier with the terrain.

In regards to mimicking, it is a completely different pattern to what existed up to that point. It makes use of ambient light, that is reflected on the fabric giving the uniform green hues in wooded terrains and orangey in desert or arid terrains.

The perception of the uniform changes according to elevation, climate, and ambient light. Even if this pattern was replaced by the ACU AT-DIGITAL, the US Armed Forces decided to re-equip their soldiers with the Multicam in Afghanistan after many complains by the soldiers.



**COUNTRIES:**

- USA (US Army Special Forces)
- UK (Special Forces)
- Poland
- Chile (Marines)
- Montenegro
- France (Combat Swimmers of the DGSE – Secret Services of France)
- Used by many private security companies.

**MINIATURE:**

Our model depicts two US soldiers (pilot and copilot) riding in a tactical vehicle "Polaris RZR SW." The setting is a rocky and desert like pathway, typical of Afghanistan.

The two figures and the vehicle are made of resin, and come in multiple pieces. Even being at a small scale, it is a very detailed and high quality set, and does not require a laborious set up and assembly work.



## HEAD PAINTING:

We start by painting the heads (optional.) When possible the head must be painted separately, and kept aside, and not assembled until the last painting phases of the rest of the body. We start by applying several layers of base color, AK3011 Base Flesh, until completely coated.



We render a zenithal lighting, lighting at each step the base color (in this case with the different colors that we find in AK' set for skin, but we can also use colors of the same tone or lighter as explained in the Learning Flesh and Skin.) We will exaggerate some the lighting, since it is a small scale after all (1:35) in order to emphasize the face's features.



We perform a zenithal light, lightening each time the base color. In this case we will use the colors found in AK skin set, but we can make them with same tonality colors, although lighter, as explained in Learning "Flesh and Skin." We will exaggerate the light a little more since we are dealing with a small scale (1:35) thus we will better emphasize the face's features.



We finish the heads by painting the hair and eyebrows. For the remaining accessories we will look up information on the internet to see what baseball caps wore the SEALs. We chose a blue cap, typical of the NY Yankees, and a khaki one broadly used in Afghanistan. We will also paint the headsets.



## UNIFORM PAINTING:

The second part is to secure paints with adequate shades for the uniform, or mix them up. To make it easier for us, since there are more than a dozen shades of greens, AK INTERACTIVE has come up with a series of sets for said purpose. We choose AK3250 Woodland & Flecktarn Camouflages, where we find very accurate colors for our Multicam camo.



Instead of painting with the base color, we will show you how to make lights and shades combining colors.

We will start by painting the dominant green color in Multicam camo's pattern. We will start with a dark color for the areas that get less light. We mix equal parts of AK30236 Dark Green and AK3024 Light Green with a pinch of violet. We shoot the airbrush from below the figure, thus making sure to paint only the shaded areas.



We continue by applying the base color. We shoot the airbrush from the top of the figure, covering it all but without painting over the previous color.



We paint the lights with a paintbrush. We lighten the base color, step at a step, with colors made of yellow and white color mixes. Painting from the bottom up, we make three shades of color, lighter at every step going up, but they must be subtle transitions, not sharp. We make as many transitions as needed to obtain the result we look for.



We finish by emphasizing with a paintbrush and a very dark green the areas with less light. We also use this color to outline. Now we can see the first color result of our Multicam.



The next step is to start the mapping, that is, the spots of the camo uniform. The first spots to paint will be the brown ones. Because it is a small scale, it is impossible to mask with precision, so we will perform the paint job with our hand lifted. We start with a dark brown, and gradually we will lighten to achieve the lights and shades as we did with the green color, but in a far smaller area. The brown spots also need light effects.



This camo incorporates a second greenish hue on the spots, but darker than the base color. We make spots of this color, but smaller size than the brown ones. The lights for these spots are made with a lighter green, and even an off-white color.



At this point we can notice if we are performing a good job with the uniform, but still there are shades of colors missing.



We still need two colors to finish the pattern. Even if they are present at a small number, they are the ones that will allow us to identify the uniform as a Multicam camo. We will paint small spots with very dark, almost black, brown color. We will paint other spots in very light grey, almost white. We will lighten up these colors too, in order to accurately represent light effects.





Finished camo pattern.



The modern military apparel has among its most common pieces the tactical vest, that besides its protective purpose, it is designed as a surface from which to hook and carry a myriad of accessories. After researching documents and photographs, we have chosen a solid khaki color vest, thus creating contrast between the vest and the uniform.

We use AK3122 Russian Uniform base color as the vest and kneepad base color. We apply as many coats as needed to obtain an even color.

We obtain the lights by mixing the base color with AK3121 Russian Uniform Lights, and the more extreme lights with an ochre color. With these colors we will be able to light the vest and the kneepads. Lastly, we will mix with AK3047 Pale Sand for outlining and to simulate small scratches on the kneepads. The shade outline is made by mixing the base color with black.





On one shoulder we paint the US flag and on the other one the flag of the Lone Star State, so widespread among the SEALs. To finish our figures but before placing them in the vehicle we will paint the boots and gloves.





# M81 WOODLAND. BUST PAINTING WITH AIRBRUSH + MASKS (MARCUS LUTRELL, OPERATION RED WINGS)

**AUTHOR:** Eduardo Fernández Rodríguez.

**MAKE & SCALE:** Young Miniatures (1:10)

**CAMO TYPE:** M81 Woodland



This camo pattern was in service in the US Armed Forces since 1981, as a battle uniform, up to its replacement in the 2000's.

It is one of the most famous uniforms, even used as civilian fashion clothing. It is popularly known as the M81. It is a four color disruptive pattern with high contrast between the spots colored in sand, brown, green, and black.



To develop this camo, the designers scaled-up its predecessor, ERDL, and they redrew the spots so that the shapes would be more irregular, plus the pattern does not repeat horizontally on its width, but vertically along its length.

By scaling-up the pattern, the uniforms were more visible at certain distance, thus preventing "bobing" (smaller areas mix with the larger ones.) The problem is that it also brings higher contrast to the uniform, so soldiers became more visible at shorter distances, thus losing its effectiveness. The camo uniforms Flecktarn and Digital solved this issue.



**COUNTRIES:**

- USA
- Russia
- Argentina
- Saudi Arabia
- Turkey
- Israel
- Netherlands
- China
- Egypt
- Many other countries

**BIOGRAPHY MARCUS LUTTRELL:**

Our figure's protagonist is one of those guys that were born to serve in the military. Since he was 14, him and his tween brother Morgan, were trained by a former serviceman, Billy Shelton, neighbor of Marcus' family in his native Odessa (Texas.) The vet trained them with weight and endurance exercises so that it would be easier for them to join the military.

In 1999, after graduating from the university, he enlisted in the US Navy, where he had a successful military career and became a SEAL. He was sent to the invasion of Iraq on April 14th, 2003, with SEAL Team 5, to destroy the remaining Iraqi resistance and to search for weapons of mass destruction. Latter, he participated in operations to kill or capture terrorists.

On June 28th, 2005, he participated in the counterinsurgent mission codenamed "Operation Red Wings." The mission's assignment was to infiltrate a 4 member team in Kunar Province, Afghanistan, to identify terrorist Ahmad Shah, his followers, and their specific location. Once located, they would guide a team to the place. The operation failed when his team was detected, thus compromising the mission. It became hell on Earth for our men. They had to fall back, look for back up, and call to be evacuated. Marcus' three team mates died under Taliban fire, as well as other sixteen servicemen, SEALs and Night Stalker's pilots, when the helicopter that was giving ground support and trying to rescue the team was shot down.





Marcus Luttrell, the only surviving SEAL, was kept safe by local villagers that sent an emissary to the nearest military base so that a rescue team could be dispatched and bring back the injured SEAL. Marcus was awarded the Purple Heart and Navy Cross for his actions during the mission. His teammates were also awarded posthumously both medals. The mission was made into a movie, "Lone Survivor." Actor Marc Wahlberg played the role of our hero.

**MINIATURE:**

We will work with a resin bust made by Young Miniatures at a 1:10 scale. This figure represents one of the SEAL demolition team members to which Luttrell belonged. Although the miniature pictures on its case another type of camo, we will paint an M81 Woodland, Marcus' uniform.

The model is divided in multiple pieces, but the assembly is very easy and intuitive. The figure is very well sculpted, and it has such a precise finish that the set up work is minimal.



**HEAD:**

To make easier the painting process, we will paint the figure disassembled. We will start by the head. We will apply a base color with an airbrush, using a mixture made of equal proportions of AK Base Flesh and AK Light Flesh. Now we will paint our protagonist's eyes. This time we will look for a greenish brown color.



We start to light the face by lightening up, little by little, the base color, trying not to make the transitions noticeable. The first lights we will use to mark the general volumes, and the last ones to detail the facial expression. We mix the last light with some white to stand out the extreme lights. Later we will apply shades and tones. We will perform this work with veilings to have greater control over the color. First we will darken, little by little, the base color, and we will highlight the areas where the light impacts the least. We apply reddish color to the areas with more blood flow (ears, nose, temple...) a turquoise one for the bear's shade, and purplish to the ears.



We finish the head by painting all the air, including eyebrows and goatee. Our man has black hair, so we start with black and little by little we lighten. We take the opportunity to make small lines on the face to simulate several days going without shaving. To give the figure more realism we will also paint bloody cuts and injuries. Latter, we will apply dirt characteristic of combat.



## UNIFORM:

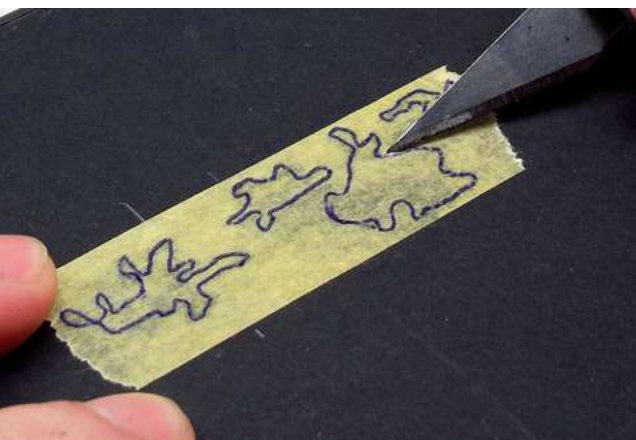
Now we are going to focus on the purpose of our book and we will simulate a wooden area like uniform: Woodland. We will perform the bulk of the work with the airbrush and masking with tape, thus rendering the work easier to perform and more exquisite. When using the airbrush we will always mix 50% paint and 50% AK712 Thinner, performing as many passes as needed until achieving the color or effect desired. It is a must to know the order in which we are going to lay the colors, since that will determine the difficulty of our work. We are going to start with the lightest color of the uniform and we will finish with the darkest one. It is easier to cover a lighter color with a dark one and achieve the desired hue.



We start with a beige color, AK3047 Pale Sand as base color. We apply with the airbrush lights and shades, obtaining a nice color gradient.



We finish with a brush the lights of the fabric's wrinkles, thus gaining contrast and definition.



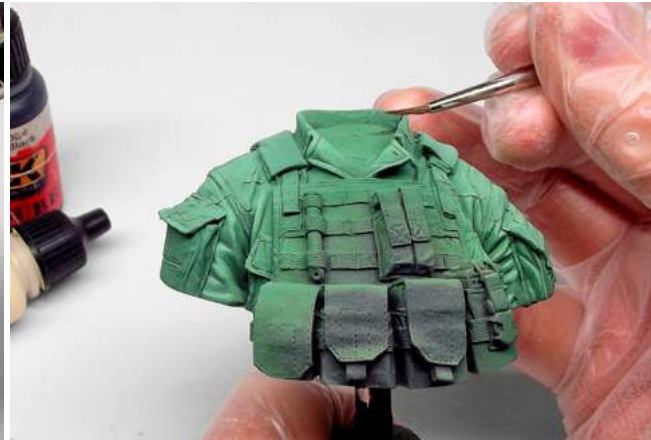
In order to continue working with the airbrush, now we have to prepare the masking. On a piece of masking tape we will paint the typical spots of this camo and we will cut them with a precision blade.



We place the masks on the uniform. We have to make sure that they resemble as much as possible Woodland's camo pattern, and that they are affixed securely to the figure, with no detached areas where the next layer of paint could penetrate.



Next color will be the green spots, AK3058 Intermediate Green as base color. We also apply with the airbrush lights and shades, obtaining a nice color gradient.



Same as before, we finish with a brush the lights of the fabric's wrinkles, thus gaining contrast and definition.



We will finish the masking work by drawing, cutting, and securely affixing new spots on the figure.



Last color we will apply with the airbrush is for the brown spots. We choose an AK3073 Red Brown as base color. We apply with the airbrush lights and shades, obtaining a nice color gradient.



Now comes the delicate work: to check how did our camo come up. Aiding us with the blade and tweezers, we remove all the masking tape, revealing our Woodland camo pattern.



As we have previously done with each color, we finish with a brush the lights of the fabric, thus gaining contrast and definition.



We are still missing the last color, the black spots. Since they are smaller and less in number, we choose to paint them by hand with a brush. We copy the spots' shapes and we add lights and shadows.



We will try to bring more realism to our uniform, so we will mimic the grid of the Woodland uniform cloth. We make a mix to obtain a very light grey, very well diluted, until it becomes semi-transparent, that is, so that we can see it without completely covering the color underneath. We paint stripes in the shape of a mesh all over our uniform.



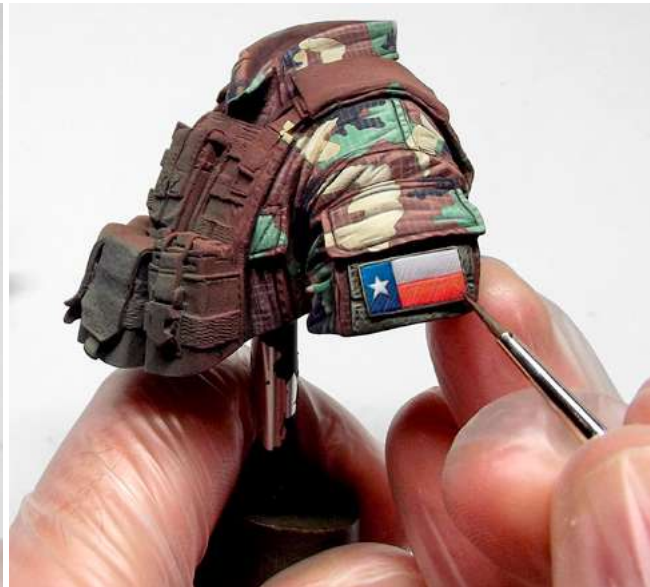
To integrate the entire work making each individual part we painted one, we will apply filter AK3017 Green Glaze.



We will also outline all the seams and joints of the uniform so that they will stand out. We will use a very intense black color applied with a very sharp brush, and careful not to stain our previous work.



Next will be the shoulders. We will paint the velcros with a green color so that they will look more real. We will copy the texture by dotting with a brush and at the same time we will add the light effects.



On the left shoulder, Luttrell had a Texas flag strapped to the Velcro. We paint it following its patterns and we make the texture of the patch with stripes.

## TACTICAL VEST:

The tactical vest is a common component of the uniforms of the modern armies. In this case, we have pictures of the attire that our protagonist wore the day of the mission, so we will copy it. We will perform our work with paintbrush so that we will not stain the work we have already completed.

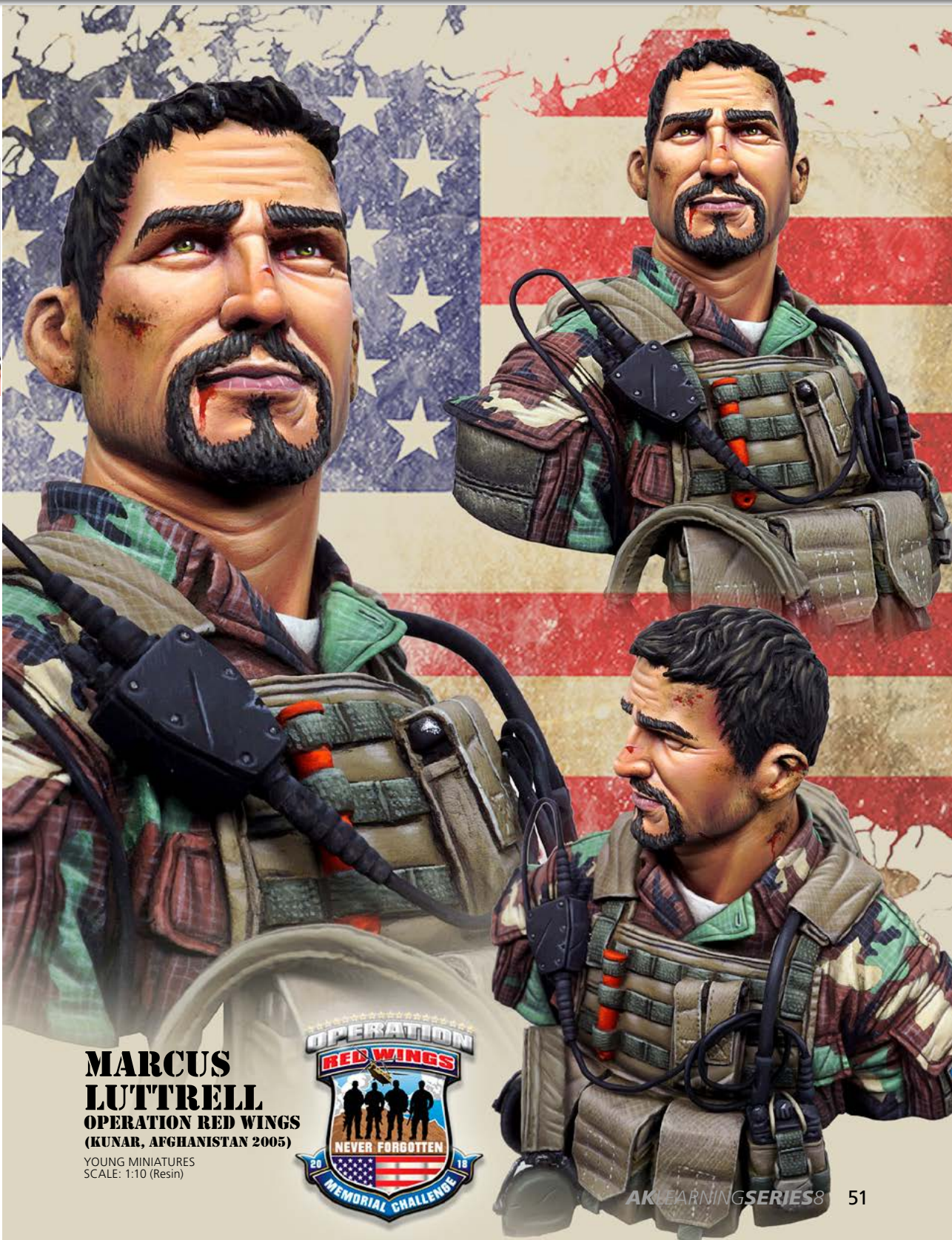


We will apply color AK3076 Canvas Tone as a base. In order to achieve a unifying color we will make several passes, letting the paint dry in between layers, and our paint strokes should always be in the same direction. We will add lights by adding at small increments AK3028 Ivory to the base color. We must keep in mind that our strokes must move from the base color up to the lighten area, and shortening the painting area on each light increment.

When it comes to shadows, we will make a very diluted mix, almost a veiling, to better control the color. For said purpose we will add in small quantities black to darken as well as violet (which is the complementary color.) We will work our brush strokes from the base color to the area of lesser light. We repeat this process until the mix obtained is almost black, which we use then to outline in shadow.



Pictures of the figure up to this point of our work. Now, we will paint the vest' stripes with a military like green color. The type of green does not matter that much as long as it is dark, since we will lighten it up and wear it down quite a bit. To finish our work we will paint and place all the equipment, being especially careful with the wiring, which is painted with the base color before fixing it, and the lights applied when positioned on their place.



**MARCUS  
LUTTRELL**  
**OPERATION RED WINGS**  
**(KUNAR, AFGHANISTAN 2005)**

YOUNG MINIATURES  
SCALE: 1:10 (Resin)



# MARPAT DESERT. FIGURE SCALE LARGE AIRBRUSH + PAINTBRUSH (OPERATION NEPTUNE SPEAR)

**AUTHOR:** Eduardo Fernández Rodríguez.

**MAKE & SCALE:** Airbone Miniatures (1:16)

**COMO TYPE:** MARPAT Desert



## COUNTRIES:

- USA
- Afghanistan
- Brasil
- Bosnia Herzegovina
- Saudi Arabia
- Iraq
- Other countries



MARPAT is the acronym for “Marine Pattern,” and as its name suggests, it is the camo pattern used by the US Marine Corps. This design was created by Timothy O’Neill drawn on the Canadian CADPAT. It is made of small squares, named pixels, of different colors. In theory, this design is more efficient than the patterns of the standard uniforms because it mimics the spotted textures and the coarse shapes found in nature.

MARPAT was also chosen because it identified distinctively to the enemies that the users of the uniform were Marines, and at the same time it kept them concealed. As a Marine spokesperson stated when MARPAT was issued: “We want to be instantly identified as a force to be reckoned with. With our new uniforms we want to be seen coming down a mile away.”



### OPERATION NEPTUNE SPEAR:

It is the code name for the operation put together and executed by President Obama's Administration, in which the worldwide sought after terrorist Osama Bin Laden, was slain.

Around 01:00 hours Pakistan's time, May 2nd 2011, in Abbottabad, North Pakistan, a small elite SEAL commando, after an exchange of gunfire, captured Bin Laden's (codename Geronimo) body.

The assault force was on the ground less than 40 minutes, and the operation was followed in real time by the Director of the CIA. During those 40 minutes five people lost their lives, including Bin Laden and his wife, according to sources of the US Administration.



Robert O'Neill. The man that pulled the trigger and ended with the life of the sought after terrorist. He was a US Navy Seal.



The White House stated that during the mission a US helicopter was lost due to mechanical failure. No member of the US military was hurt.

The soldiers took Bin Laden's body after the gunfight, and it was brought back to Afghanistan by helicopter and his identity confirmed by DNA samples taken from the brain from a Bin Laden's sister that died in the US from cancer. The body was embarked in the USS Carl Vinson aircraft carrier, where an Islamic funeral took place. His resting place is now at the high seas.

There was controversy regarding the operation. A movie was made, "Zero Dark Thirty." Some international organizations and individuals criticized the US Government since in order to end with the terrorist threat it ignored international laws. This leaves us with the question: "does the end justify the means?"

## MINIATURES:

We will use a couple of figures, scale 1:16, for a small vignette set up inside the house where Bin Laden was found during operation Neptune Spear, but we will focus on the uniform. The two resin figures are made by Airborne Miniatures.

The figures are well detailed. The assembly can be somewhat laborious because of the number of parts they are made off, and because the finish is somewhat rough. Nevertheless, they are well documented, and we can find all the equipment specific of the Navy SEALs. The set up and assembly are no different from the ones previously presented in this book, so we will focus on painting the head.

## HEADS PAINTING:

First thing is to prepare the heads, detached from the bodies, because with the airbrush we could ruin our work. We paint the face skin with the set for skins AK3010 Flesh and Skin Colors in the following order: first lights, second shades, and third hues. We finish the head by painting the hair, beard, and eyebrows.

We use bottle corks for an easy handling of the heads.



To color the helmet's straps we paint the color base AK3076 Canvas Tone, typical of these types of straps on US uniforms. After applying lights and shadows we will dot the straps to simulate the nylon texture. We emphasize the outline in order to gain contrast.

We finish the heads by painting the headgear. After a little research we find out the majority are greenish, so we look for a similar hue. We apply lights and shades. All the elements, no matter how small they are, are of great importance for achieving a satisfactory result.



## UNIFORM:

**1.** In the world of acrylic paint we find a large selection of brands and colors, so looking for particular colors can be a tedious work. AK INTERACTIVE has cut our work down by offering sets designed for the different types of modern uniforms. For our work we use set AK3220 Modern Desert Uniform Colors, where we find all the colors of our chosen camo's pattern.

**2.** As is the case most of the times when painting camo uniforms, we start by applying the predominant color, in our case that is AK3033 Light Sand. The first step is to paint the shadows, so we darken this color and we shoot the airbrush on the areas that get less light.

**3.** We continue applying the base color as well as the lighting in general. We will spray the base color, from the light's direction, and little by little we will lighten and shorten the surface that we paint. This way we will achieve a general lighting without departing too much from the base color.



**4.** If we finish the work at this point, the end result would be quite poor, so we proceed with a brush applying lights and shadows to all the wrinkles of the uniform until obtaining good contrast and detail.

5. At this point we will start coloring the parts of the uniform that are different from the rest, such as the knees. For this purpose we use base color AK3111 Desert Uniform, that we have lightened and darkened to paint lights and shades.

6. Modern uniforms have plenty of seams, so we must outline all of them one at a time. We will darken the base color, towards black, and we will go over them paying attention. We outline in shade.



Now we will round off some details, this way it is easier to have an overall picture of the figures. We paint the velcros and the kneepads. For the velcros we use the same color scheme that we did before. The kneepads are the same color as the uniform, but we will make them a little bit darker.



We will start giving shape to the camo. Since it is pixelated, we must take into account rectangular shapes. We will work with joined straight lines and small dots that at a distance look like geometrical shapes. We start with color AK3051 Brown Grey. It is not the exact color of the uniform, but it will help us be clear about where to place the spots.



We lighten this color at small increments using ochre hues, so we will have our lights done plus we will come closer to the real color of the uniform.



We start with the second color of the pixels. We can paint over without being too concerned and if we choose to do so. We will perform the same steps as the previously done, but using color AK3075 US Field Drab.



To finish our camo, we will paint the darkest color. We can paint over the other two spots. These are small and skipped spots, and we will not lighten them much.



**ACCESSORIES:**

1. We continue our work by coloring the boots. After researching we found out that these soldiers used different types of boots. We chose the ones closer to the shapes of our figures' boots, and we proceed with our work.



We will not miss the opportunity to add details that will distinguish our work. It is always worth the effort to add small elements that will set our works apart.

The technical vest worn by our SEALS is equipped with the same camo pattern as our uniform.

We use the same colors and technique as we did for the uniform. We start with the predominant color and we apply lights and shades in order to be coherent with previous work.



The pixelated pattern is done the same way as we did before.



We research info about the helmets worn with this uniform. Besides the rigid parts we will also need to replicate other components such as velcros, wiring, etc.



We use the airbrush for the base color and lights since we look for a uniform gradient without marks in order to resemble as much as possible the helmet's material. We use the same color scheme as we did for the kneepads.

The weapons are black, so we use set AK3001 for black uniforms. We also use the airbrush to ensure a fine finish. We apply the base color AK3002 Black Uniform Base.

We will light and shade the weapons using, in order, the colors in the set. We will add small details such as visors, letters, etc.





# CUCP/ACUPAT. BUST PAINTING WITH AIRBRUSH + MASKS (THE DEAD MAN'S HAND)

**AUTHOR:** Eduardo Fernández Rodríguez.

**MAKE AND SCALE:** Airborne Miniatures (1:10)

**CAMO TYPE:** UCP Universal (ACU/UCP)



## COUNTRIES:

- U.S.A.
- Chile
- Peru
- Serbia
- Cyprus



In the year 2000 the US military decided to replace the old uniforms because it thought they were obsolete since they did not match the weapons and equipment.

In mid-2003 begins a program to develop a new camo pattern to unify the battle dress. The contract was put out to tender and several companies entered to have a chance to earn the multimillion price.

Even after obtaining the lowest scores on the trials performed to evaluate the glare, contrast, and mimetic properties under day and night light conditions (at night using night vision equipment,) the UCP (Universal Camouflage Patter) is nevertheless approved by the US Department of Defense. This pixelated camo pattern, with small squares in shades of grey, greyish green and khaki, was sold as a universal camo to serve under any operation scenario.

This idea was very appealing taking into account that the US was engaged in Afghanistan, were the soldiers fought in all types of terrains.





In 2005 the American soldiers started wearing the new UPC uniform in action. The big surprise came when the uniform had the complete opposite effect: it outlined the soldiers against the backdrop of the Afghan terrain, turning them into easy targets of their enemies, resulting in many casualties.

In the year 2009, after spending 5 US billion dollars, the House of Representatives passed a law that mandated the US Dept. of Defense to find an immediate replacement to the UCP that would be adequate and effective. The chosen replacement was the Multicam, developed by Cyre Precision.



#### MINIATURE:

For this work we have a bust scale 1:10 made of high quality resin by Airborne Miniatures. This miniature is not going to be yet out on the market before the publication of this book, and the result of this work will serve as the Box Art and the book's front cover.

We are dealing with a US helicopter pilot, to be precise, an Apache pilot. The figure has a high level of detail and comes disassembled in several parts, from which the helmet is worth mentioning because it has all the elements specific of this type of gear, including night vision goggles and mask (which can be put on or off according to our preference.) We also have to mention a see-through like screen, very well rendered. The only drawbacks are that some parts are very delicate and that it does not include the helmet's wiring.



## HEAD PAINTING:

We will paint the head separately, and safe keep it for latter attachment. This way it is easier to work on it and we prevent dirtying or damaging it while working on the rest of the parts.

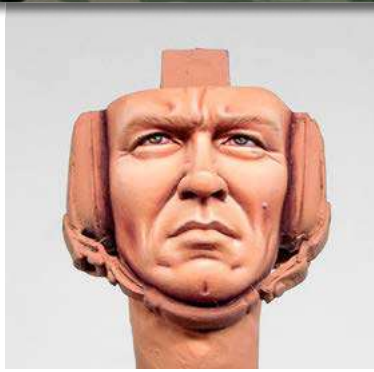
We paint the base coat with airbrush, by spraying several thin layers so that we will not lose any facial expression details. For said purpose we make a color by mixing 50% AK3011 Base Flesh + AK 3012 Light Flesh.

Now is when we paint the eyes, because this way we set the face's posture and gesture. Since it is a large scale, we can perform a more detailed work.



Even if many modelers use an airbrush to paint the faces of figures at this scale, we will use the paintbrush. The first thing is to light the face. That is to lighten the base color in order to emphasize the areas with greater light exposure. We perform the work with care and in small increments so that the transitions will be unnoticeable.





The next step is to shadow and outline the shadow. The process is just the reverse of the previous step: we darken the base color in order to paint the areas with less light exposure, thus gaining contrast. We apply the paint very watered down in order to have better control over the color.

To finish the skin of our pilot we have to paint typical hues of a man's face. We will always use veilings. We proceed with three indispensable details: a reddish hue for the areas with higher blood flow; purplish for the ears; and turquoise grey for the bear's face. We finish the work by painting the eyebrows, which brings realism to our figure.

To finish the head we paint the headsets first, and then the helmet's fastening stripes. We try to simulate the texture of Nylon using the dotting technique. We ensure to well outline these parts and the skin

### HELMET:

Our figure's helmet may be the most speaking eye-catching part of the entire soldier. We could use a solid color, but after reviewing lots of documentation, we found out that it is quite common the practice of decorating helmets with personalized drawings. For said purpose we will add a similar detail too. We will choose the drawing of two playing cards on the front part: an eight and an ace. These cars are the Poker's play named "the Dead Man's Hand".

The first thing is to protect the entire helmet with masking tape, except for the area where we will place the cards.



We use the airbrush and AK INTERACTIVE Real Colors RC019 and RC004 to make a gradient from ochre to white that will bring forward the base of the cards. We take masking tape and with a blade we slice two pieces with the scaled shape and dimension of two playing cards. Then, we glue the masks to the area previously painted in white and we place them as we like.



We paint the entire helmet with an airbrush and color RC001 Flat Black and we will make light effects carefully with color RC Rubber Black. Once the paint is completely dry we will remove the masking tape so that the shape of the cards is exposed. With the help of a paintbrush and black paint we will outline in black the silhouette of the cards. Now we are faced with the difficult but fun part of our freehand: to draw the images of the cards and the details. We will use a sharp brush and acrylic colors needed.



We now outline all the edges and shadow areas of the helmet with different shades of grey and black. We take the opportunity to make the scratches and chips formed by the use. We have almost finished this part, but we still need to paint the badge that appears on the helmet. We will try to simulate the texture of the patch fabric, making lines to simulate the threads. We then finish the work painting the metallic parts and cables.





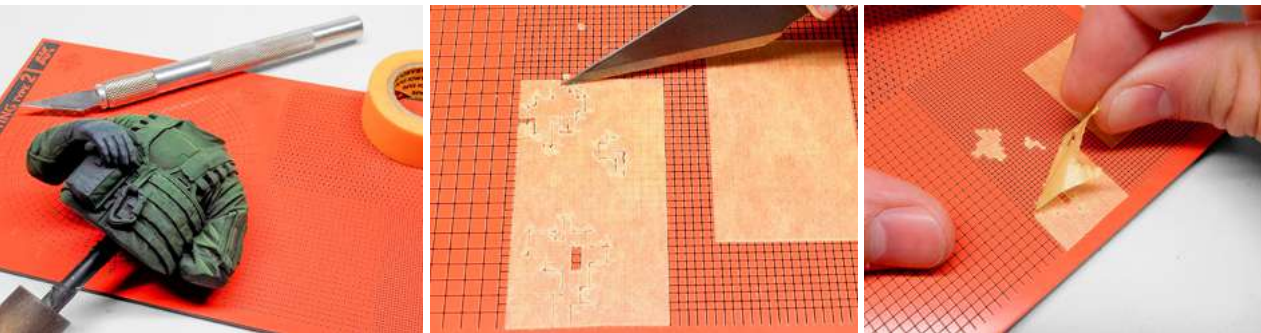
## UNIFORM:

This uniform is identified by its straight lines and polygonal shapes. When we work at these scales we must be very precise because if we only use paintbrush the end result may not be very convincing. For this reason we have decided to use masking tape cut with the shape of the pixelated camo pattern. This way we can work with the paintbrush. When preparing a mix with the airbrush it will always be at equal parts with AK172 Thinner.

We start painting the darkest spots on the pattern. For that purpose we paint the entire uniform of that color, as if it did not wear any camo. We use AK3025 Medium Green as a base color, and we will apply general shades and lights with an airbrush. We will the lights and shadows with a paintbrush, thus achieving greater contrast and a more detailed finish.



To make the masking we will use a cutting board type 2 of AK INTERACTIVE, which has a perfect grid for this type of camo. We place a piece of masking tape on the board and with the help of a blade we follow the squared pattern, making up our shapes. When we remove the tape, we will notice that the shapes remain affixed to the board.



We carefully glue the shapes on our uniform. We make sure that they are securely affixed. Then we will paint the spots with a light green color. We will use base color AK Green Uniform base. With the help of the paintbrush we will apply the base color and the main lights and shadows. We will paint as if the entire uniform was one color, even on top our spots.





As with the first color, we finish the light effects of the uniform's wrinkles with a paintbrush. We must be careful with the masking. We go back to make more masks with geometrical shapes and we randomly affix them to our uniform. Last, we will paint the lightest areas of the uniform. We will use color AK3133 Light Sand as base. We will paint with airbrush the base color the main lights and shadows, as previously done. We paint again the entire uniform, even over of the masks.





We complement our lights and shadows effects with the help of a paintbrush, with care not to paint under the masks.

Now we check how the masks performed, and our work pays off. We remove all of them and a perfect pixelated pattern emerges.

Even if the pixelated pattern is quite correct and geometrical, the scale of the pixels is too large, so we must add details with a paintbrush by means of dots and straight lines.



To integrate the entire camo pattern we apply a thin layer of AK3017 Green Glaze.





The uniform is not completely a camouflage one: from the torso up to the neck is a solid color. This area we will paint with paintbrush in order not to ruin our previous work. We will start with color AK3114 Green Uniform base, we lighten and darken for light effects. At this point we must as well paint the uniform's velcros. We will not paint as a solid pattern, but we will dot to achieve texture.

#### TACTICAL VEST:

The tactical vest has two different parts: one with the same camo pattern as the uniform, and the other one the green shoulders and straps. We start with the shoulders, which have a mesh type texture. First, we paint the background with color AK3116 Dark Blue Green, covering well the surface, leaving nothing unpainted. Then we outline in shade with black.



In order to bring out the net, we will use the "dry paintbrush" technique. We lighten the previous color with a flat brush, with very little paint, and we perform smooth passes until the texture is noticeable. Lightening even further, we can perform the light effects on this area.



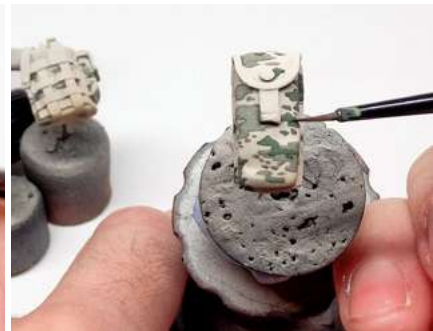
All the stripes of the vest are nylon, which has a specific texture that we will try to mimic. First thing is to paint with base color AK3116 Green Uniform Shadows all the stripes. We will lighten this color at small increments to make the light effects on all stripes.



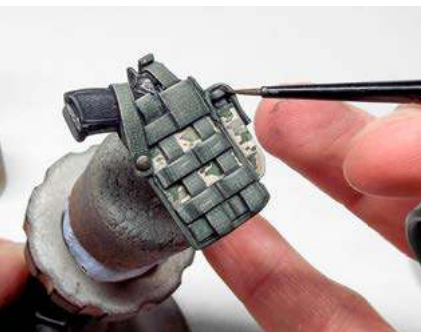
Second, we mimic the nylon texture with dots, but not randomly. We paint parallel lines of dots, filling all the surface of each strap. We will use the color of the last light, but lightened with off-white. We shade and outline the straps after the dotting. We finish by painting the insignias on our uniform. The marking on the shoulder is exactly the same as the one on the helmet.

### ACCESSORIES:

Our figure, as all modern soldiers, has many pockets and accessories on the vest. After researching we find out that this gear follows the pattern of the camo uniform. Since the elements are small, we will paint without masking. First we paint the lighter color with the airbrush and we apply lights and shadows. We start then with the lighter color dots with a paintbrush by painting straight lines of dots. Now we paint the dark green spots, the same way as we have just done before.



We paint the sewn-on borders and straps the same way as we did with the vest' straps. We have to differentiate the items made of nylon from the ones that are not in order to assign different types of texture. Our last piece of work, since it took us more research time to find the exact model, are the night vision goggles on the helmet. We use AK's black uniform set, even if will paint the lenses greenish. We might as well paint now the wires on the figure, and our work will be finished.





# FLECKTARN. COMBINED TECHNIQUE LARGE SCALE (A SHOT IN THE FOREST)

**AUTHOR:** Eduardo Fernández Rodríguez.

**MAKE & SCALE:** Alpine Miniatures (1:16)

**CAMO TYPE:** Flecktarn



It belongs to the family of disruptive camouflages, that means that it is based in the concept of dividing the contour of a soldier or military vehicle with a high contrast print. The original was German, with 5 colors, and it was designed to be used in European temperate forests. The colors: dark green, light green, black, reddish brown, and either tan brown or tan green, according to the manufacturer.

Even if the German Army started testing camo patters before WWII, the combat units Waffen-SS wore several similar patterns since 1935.

It was designed by the German company "Marquardt & Schulz" for the German Army. The word "Flecktarn" is composed by the German word "Fleck" (spot, patch, or pattern) and "Tanung" (camouflage). Flecktarn was only widely introduced in 1990, after the fall of the Berlin Wall, with Germany just reunited.

This type of military clothing is in use by the German Armed Forces, with some variations of colors, depending on the needs of each force or the environment where to be used.



**COUNTRIES:**

· Germany · Austria · Belgium

**MINIATURE:**

This is a figure of Alpine Miniatures brand, made of resin to 1:16 scale. It represents a modern soldier. Even if it depicts a US soldier, we will make some adaptations to render a German soldier.



This model comes disassembled. All the parts look very clean of flash-es and cast lines, so we will not show the prep process. It is a very well made figure, and as usual with this brand, the kit comes with two heads: one with a helmet and the other one with a ski mask.

**HEAD:**

As always, we will start our paint work with the figure's head. We do so because the head will set the lighting, direction, and the entire process, and also because it adds personality.

For this work we use the set AK3010 Flesh and Skin Colors. We start painting the base color and the lights. Once we have the face with the lights, we apply the shadows. We finish the work by incorporating the flesh tones and the beard's shadow. Our figure has a ski mask, so to paint it we have chosen a green tone, since the figure is located in a forest environment. After being done with the lights and shadows, we perform a vertical stripe pattern to look like the texture of the cloth. For such purpose we will use the color of the last light with AK3047 Pale Sand.



## UNIFORM:

To go about painting the uniform we could gamble and make our own color mixes, but to make our work easier we will use set AK3250 Woodland & Flecktarn Camouflages. In this set we will find the 4 base colors of the Flecktarn pattern. The first step will be to identify the background color of the uniform, that is, the color where all the other ones superimpose. In this case it is the lightest green, which will also facilitate the next steps. We will apply this color with the airbrush, to obtain a color modulation as perfect as possible. When using the airbrush, the ratio will always be 50% paint and 50% AK712 Thinner, to prevent clogs and to have a total control over the color.



The first step will be to paint the shaded areas. For said purpose we will perform two color transitions, spraying with the airbrush from the bottom of the figure in order to reach the areas that get less light. For the first pass we will use a mix of 50% AK3024 Light Green + 50% AK3025 Medium Green. The second pass will be just AK3025 Medium Green.

At this point is when we will apply the base color. We will shoot the airbrush with color AK3024 Light Green from the top of the figure, slightly overlapping this layer at the shaded area, being careful not to cover it.

We will finish the work with the airbrush adding lights to the modulation. To achieve this effect, we will spray the paint following the light's direction, and being a zenithal light, it will be from the top. We will do two transitions, overlapping the base color, but without totally covering it. The first one will be done with 75% AK3024 Light Green + 25% AK3047 Pale Sand, while the last one we will do with these two colors at 50% + 50%.

At this point our work may look acceptable, but we have to finish it. We have to detail the light on all the wrinkles and creases with a brush, giving more contrast to lights and shadows. We must follow the intensity of the light according to the area of the uniform.

The next color on our pattern, by surface extension, is dark green. The color is AK3058 Intermediate Green, but we work with a darker green so that when we will paint the base color, this one will stand out.

The characteristic of this type of camo is that its spots are made of connected dots. To render the parts where the dots are together, we first define with the brush an area with the shape of a cloud. We fill the cloud with well diluted paint to obtain a soft finish, and we will keep at it until we obtain a more solid and homogeneous color.

We will also place some scattered dots. Once placed all the spots of the first color, we start lighting. We achieve this by adding at small steps AK3058 Intermediate Green to the first color, and afterwards adding AK3047 Pale Sand for the areas with more light. Here, to keep the light coherent, we have to pay attention to the intensity of the light on the spots so that it will match the one of the area where they are located.



The next color we will add to the camo pants will be brown. We will start with color AK3073 Red Brown Leather as base color. As we did with the previous color, we will outline the shape of the spot with curved lines, until we get the shape of an irregular cloud.

With the paint well diluted to obtain a soft result, we fill the interior of our cloud. We keep going until we obtain a solid color.

We light up the base color at small increments, and we emphasize the light areas of the wrinkles and creases of the cloth. We must be careful with the light intensity depending on the location of the wrinkles on the figure. We intensify the shades on the wrinkles of the cloth, darkening the base color and with the paint well diluted. We repeat as needed until we get the appropriate contrast.



The last color we will add to the camo will be the darkest one. Every time we can do so we will follow this technique, because it is always easier to cover a light color than a dark one. We will mix AK3056 Waffen Fall 75% + Black 25%. At this point we will use the tip of our paintbrush to make random dots and concentrated dots, that is isolated and grouped dots to make the spots.

We light up the base color to shed light to the areas with wrinkles on the uniform where found.

Since we started with a very dark color, almost black, we do not need to make shadows. What we will do at this point is to outline all the seams of the uniform. To do so we will use a very intense black acrylic paint.



#### **ACCESSORIES AND EQUIPMENT:**

When it comes to these type of figures, the details are going to make it stand out, since the camo prints can make the cloth work disappear. Thus, we will pay great detail when painting the elements that encompass the uniform, replicating the textures. Our soldier's holster will be black, so we will use the black that comes with AK3001 set for uniforms of that color. We will simulate a plastic like material for the holster and a nylon texture for the straps that hold the holster to the leg.

The figure does not carry any type of patch nor emblem, but according to the documents, we must place a German flag on each shoulder. Since we do not have any embossed references, we hand paint them.

When we face coloring the vest, we come to a dilemma: to be totally loyal to reality or to make adaptations. Usually, these soldiers wear a vest with the same camo pattern as the uniform, but that would make our work somewhat monotonous to the sight. Thus, we keep researching and we find that occasionally single color vests are used. For this reason we paint it khaki green, applying lights and shadows according to the general light.





We use a different green tone for the straps and velcros belonging to the vest. We light the straps giving the feeling of depth at the center, so they look distinct on that area, and we texturize the velcro by drawing dots similar to that material.



For painting the weapon, we will start the work with the Real Colors of AK Interactive, because being ideal for these type of items, they also provide a very strong base. I start modulating the color with the airbrush to achieve a zenithal lighting, being RC023 Olive Drab the base color.



Once done with the lighting, we profile all the edges and details of the weapon, lights and shadows. This process is done with a brush and acrylic paints. We look for a color similar to the Real Color used before and we will clarify it with AK3047 Pale Sand for the light outline. The shadow outline we will do with a very diluted black.



We have decided to draw lines in a reddish brown to simulate the camo that many sharpshooters customize their weapons with. With the airbrush we randomly draw irregular lines crossing the weapon on its entirety.



In order to finish the weapon, we will make small chipings due to its use. We will use a piece of sponge with not much black-grey paint, and we perform careful touches on different areas of the weapon, more heavily on the areas where more contact occurs.



We place the weapon on the figure to paint the hands. This way it will help us see the parts more exposed to the light, to achieve a more coherent lighting with the rest of the figure. We use the same procedure as the skin color for the face.





# URBAN MULTICAM. COMBINED TECHNIQUE SMALL SCALE (ANTITERRORIST GROUP)

**AUTHOR:** Eduardo Fernández Rodríguez.

**MAKE AND SCALE:** Lve Resine (1:35)

**TYPE OF CAMO:** Multicam Black



First debuted in 2002, MultiCam was designed for service in the US military in different scenarios, seasons, heights, and light conditions. The pattern replaced the desert and desert three colors, but in 2004 lost versus UPC (Universal Camouflage Pattern.) Nevertheless, due to the flaws the UCP had, MultiCam came back into service.

On November 25th 2013, Cryle Precision presented a new line of variations of this type of camo pattern. They were designed for arid, tropical, and snowed scenarios, and there even was a variant in black hues for the law enforcement tactical teams.

The MultiCam Black pattern, although it is not based on any geographical area of the world, was designed exclusively to satisfy the needs of law enforcement that operate in high risk environments. This variant is designed to complement an officer's equipment and render a neat and professional image of first-rate police units.



**UNITS:**

- Special Weapons and Tactics (SWAT)
- Other law enforcement tactical teams.

**MINIATURE:**

This figure represents a US soldier with its combat attire. Since it is almost like the one used by special law enforcement teams, we will convert it into a member of the FBI's SWAT.

We find our model completely disassembled, and its parts held together by sprues. For this reason the set up and assembly work will be somewhat more challenging. Also, being a small scale, strengthening the unions with metal rods is more complicated. Nevertheless, the figure has a very realistic finish with plenty details, giving us the choice to place or not some of the gear.



**ASSEMBLY AND SET UP:**

After assembling all the parts of our figure, except for the head because we will paint it separately, we will apply the primer. For this figure we choose a black primer since it is ideal for this type of uniform. We will use AK757 Bleck Primer, applied with an airbrush, diluted with AK470 Xtreme Cleaner, mixing 50%-50%. We make sure that all the surface of our model is painted and the color is homogeneous.



**HEAD PAINTING:**

To paint our figure's head we will use colors from the set AK3010 Flesh and Skin colors. First we start as we do when using paintbrush by applying a base layer and the light effects. Even if it is a small scale we will make as many transitions as possible in order to achieve a smooth gradient.



Next step is to apply shades and hues. For the shades we will use colors for said purpose found in the set. We apply them very diluted, in order to have more control, even if we have to make more passes with our brush. We will add black to the last shade and we will use it to outline. The hues for the cheeks, nose, and lips will be red, and turquoise for the bear' shade.





**UNIFORM:**

Our uniform is predominantly black, and that is why we use black primer. For the uniform colors we will use blacks found in the set AK3001 Panzer Crew Black Uniforms, where we will find all the colors for the lights and shadows transitions.

The first thing is to achieve the modulation of the color, that is, the overall lighting of our figure. We will use the airbrush in order to have smoother transitions. We use 50% thinner and 50% paint so that we will have thin layers and we will not lose details. We will start with the darkest color, shooting from the lower part of the figure, and at small increments we will lighten the color and shoot from the top of the figure.

When we will finish the transactions we will end up with a figure close to the one pictured at the bottom. We can see how our color goes from a dark hue (AK3007) at the bottom of the figure, to the base color (AK3002) at the middle, and to a lighter color (AK3003 50%+AK3005 50%) at the top. We have achieved the overall effect of a zenithal light.



AK3003 (50%) + AK3005 (50%)



AK3002

AK3007



Our work looks good now, but it is not finished yet. A good lighting work ends with the clothes' wrinkles detailed, so we will paint the lights and shadows of each crease of the clothing. We have to keep two things in mind: first is that the top wrinkles get more light than the bottom ones, so the top are lighter; and second is to have the paint very well diluted in order not have ugly markings.





At this point, we will start the fun work of camo: to make the spots. We will start with the greenish ones, so we will use color AK3123 Russian Uniform Shadow. With the paint diluted until obtaining a milky like mix, we draw each of the spots using the tip of the brush. We repaint all the spots until obtaining a solid color.

To be coherent with the rest of the figure, we will light the wrinkles found inside our spots. We mix the previous color, slowly, with AK3122 Russian Uniform Base first and then with AK3121 Russian Uniform Lights until we achieve the same light intensity of the area where it is located. These colors can be substituted for similar colors of other brands.

The following color is a grey-like tone, so we have chosen a mix of color AK3066 (80%) + Black (20%). We will paint smaller spots than the previous ones with the tip of the brush and a well diluted paint. We will keep painting each spot until we will obtain a monogamous color.



As we did with the green spots, we will light so that they will match the area where the new spots are located. At small increments we will lighten the base color, first with AK3006 and then with AK3067 Deck Tan and we will detail each of the wrinkles of the uniform on each spot.



At this point we will add small black spots to the pants. We will place them randomly, even on top of existing spots. We will not light them, we want them pure black, because otherwise they would not be seen.



To end our work and make the entire pattern blend, we will apply a black filter. Since we do not have one, we will make one by mixing 85% water with 15% AK3007 (black.) With this mix we will paint the entire uniform, all over the pattern. We will let it dry and if desire we may apply a second time.



### TACTICAL VEST AND DETAILS:

In many of the pictures that we gathered about this uniform, the tactical vest is black, with some exceptions, in which it is ochre. To gain contrast and to make our work stand out we have chosen the latter one. We will apply as base color AK3076 Canvas Tone darkened with a black color.



We started with a dark color since it is a small scale figure, and this will make it easier to gain contrast when applying lights and shadows effects. We will light at small increments, adding first AK3076 Canvas Tone and then AK3028 Ivory to the base color. We will try to follow the light intensity that we already have on the uniform in order to be coherent.



Following the same color scheme previously described, we will color all the pockets of our figure, and we will paint the straps. We could have painted them the same color as the vest, but we would have made them unnoticeable. So we will paint them with AK3025 Medium Green. Lights are done by adding an ochre color and some AK3028 Ivory.



Our figure did not represent a SWAT team member, so it did not come with any insignia nor marking. We will paint them by hand.



On one shoulder he has a US flag and on the other one the tactical patch that we have found among the checked sources.

To finish our figure, we will paint the rest of the gear being very attentive to details. There are gear that even if being black, such as the kneepads, we will have to bring them up to relevance, performing a good lighting work and adding worn out effects.



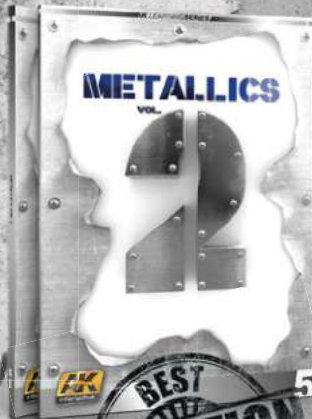
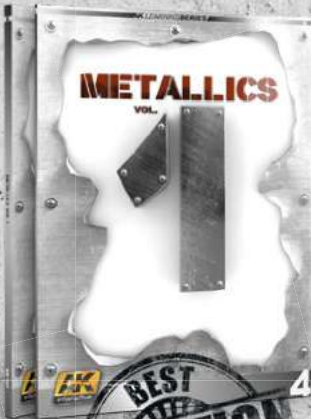
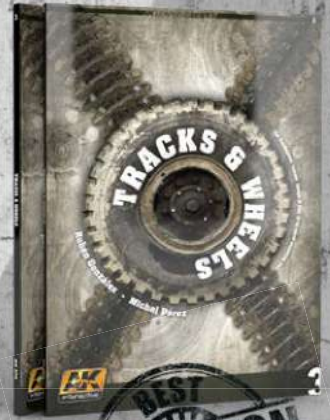
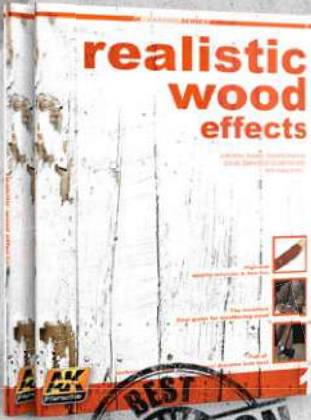
### SETTING:

To contextualize our figure, we will make a small vignette representing an alley typical of any US city, where a SWAT team would operate. It will be a dark setting, where the uniform becomes more functional. We will use a black wooden base by Arrimodels, very simple and without moldings in order to give more relevance to the scenario. We will make sure that any elements that we add, although eye-catching, will not take away the spotlight from our figure.





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