



Hello everybody,

one of the highlights of this year will be the European Aircombat Scale Games 2012 in Moldova.

It's an interesting country with a long aircombat history. Beneath proceeding with the aircombat-story from Martin Elmberg, we will also tell "How it all began..." in Moldova.

And what would the winter season be without new projects? Andrej Pervinsek from Slovenia presents his plan for his Ta 152 and Rainer Handt shows his ultimate streamer cutter, a really useful tool for every contest.



Good starts and many happy landings in 2012!

Best Regards, Timo Starkloff

Sport Referee Aircombat Deutscher Modellflieger Verband e.V. t.starkloff@dmfv.aero www.aircombat.dmfv.aero

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Also many thanks for all other helpers, who provided informations and pictures for the articles.



European Aircombat Scale Games 2012 in Moldova

This summer, EASG 2012 will be held in Moldova. Aircombat pilots from all countries worldwide are invited to take part!



The airfield is located 25 km away from Chisinau, which is the capitol of Moldova. EU citizens can travel to Moldova without the need for Visa.

Moldova is an interesting region with a great landscape, not far from the Black Sea, and is famous for its whine.











About 7 km from the flight field, there is a resort at the banks of the river Dnester with many hotels. At the flight field is a shower, toilets and two cottages with the possibility to charge accumulators.

Time table

1516.08.	arrival of pilots
	test and training flights
1718.08.	competition
	5 heats WWII, 3 heats WWI
18.08.	pilots party in the evening
19.08.	semi-finals and finals WWI and
	\X/\X/TT

If you're interested to take part at EASG, please contact your local National Contact. For further details



and information, you can also contact the NCs of Moldova themselves or visit their website:

ACES Moldova www.rc-combat.md www.easg2012.org **EASG 2012** 1. NC Alexandru Popovic tempest05@mail.ru 2. NC Igor Bereket ibereket@yandex.ru

More information for visitors about Moldova: www.moldova.org

http://www.travel.md/discover-moldova/

LET'S FIGHT IN MOLDAVIAN SKY! LOCUL BĂTĂLIEI - CERUL MOLDOVEI! СРАЗИМСЯ В НЕБЕ МОЛДОВЫ!

Text: Igor Bereket and Timo Starkloff

Photos: Igor Bereket

Aircombat in France

After their appearance at WASG 2010, French aircombat pilots did the next step and started a new website. The moderator is Olivier (CombatRCFlyier@hotmail.fr).



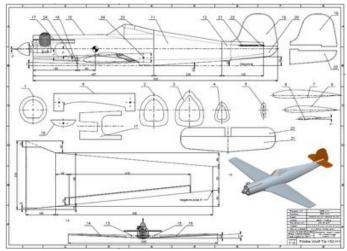
http://aerocombat.pagesperso-orange.fr/accueil.1.html

Text: Timo Starkloff

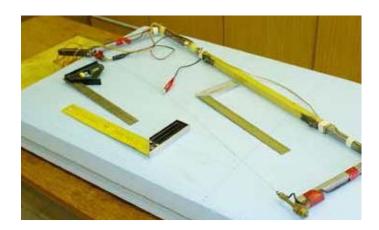
Andrejs Ta 152

Slovenias 1st NC Andrej Pervinsek was busy this year. He constructed and build a Focke-Wulf Ta 152 H, made a plan and also wrote an article about this plane for a Slovenian modelers magazine.





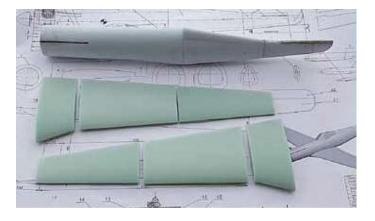
The Ta 152 H is made of blue foam. This allows to prepare parts for many planes in short time. Which is especially useful, if it is build by some pilots of the same squadron or to fill up the storage for the next contest season.







The cutting templates are made from plywood. Their edges should be cleaned and sanded, to prevent the cutting wire from getting stucked.



Since the wing of the Focke-Wulf is sleek, it is essential to keep the weight low to get a good performance at contests. Low drag and low weight allows to use smaller engines, which again leads to lower weight.

Possible engines for example, are Magnum .15, ASP .15, ASP .21 and MVVS .21. An .15 engine seems small for this plane, but a weight below 1000 grams combined with 126 cm wingspan is a guarantee for tight manoeuvres.



For a pdf-copy of the plan, please ask Andrej Pervinsek via mail (pervinsek@gmail.com).

Technical Data Ta 152-H

wingspan 1260 mm 885 mm length

weight 950 - 1150 grams.15 - .20 two-stroke or motor .30 four-stroke

Text: Timo Starkloff Photos: Andrej Pervinsek

Elmberg Spitfire - Reloaded

In addition to his legendary Airacobra, Martin Elmberg designed and flew many other aircombat models.

Now his Spitfire got redrawn by Stefan Nöster from Germany. The new and old plan is available for download from Martins Aircombat Blog. On his website, you can also find some other plans, hints and articles about the whole aircombat theme.



http://www.8loop.net/aircombat/static.php?page=static100222-

Text: Timo Starkloff Photos: Martin Elmberg



Streamer Catchers - Reduced

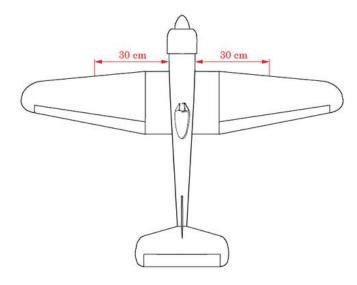
For the contest season 2011 in Germany, we tested reduced streamer catchers with good success and we will continue in 2012.

At WASG 2010, there were some interesting types of streamer catchers to see. For some people, they had nothing to do with fair play. But rules are not clear in this point.

When we had a vote at the end of 2010, we also had a discussion about streamer catchers. By vote of our pilots, decision was made to reglement streamer catchers more strictly in the coming season.



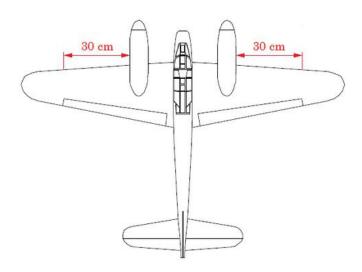
Which began as a discussion about making a more exact rule, ended in something different, but nevertheless useful. Among some different ideas, most votes were given to reduced streamer catchers. Which means, they are only allowed at the wing. Also their length is limited to 30 centimetre measured from the fuselage. Twin-engines are measured from the engine nacelle.



The reason for this rule was, to equalize the difference between .15- and .25-engine fighters.

Small fighters struggle with two problems. They simply have the smaller area to make a streamer cut. And the aerodynamics of the wing get much worse

influence by attaching streamer catchers than on bigger planes.



And our experience this year with 15 contests flown following this rule, is absolutely positive.

The .25-powered planes have reduced cut numbers. Especially the sometimes extreme high cut numbers of 4, 5 or 6 in one single heat are very rare. This also supported a change of the general flying style. Instead of just fishing streamers out of the air by simple flying in the middle of the furball, it changed to a more hunter like style, with chasing single targets.

But reduced streamer catchers not only helped small planes. Many if not most of our pilots just fly for fun and not for points. Even if it's not their goal to make much points, it's much more satisfying if they are able to reach the final heat or get a good ranking from time to time.



For aircombat, it is essential that we keep the balance between different models, different flying styles and different pilots. That will keep the variety which makes contest interesting and colourful. Reduced streamer catchers can help a little bit in this task.

Text and photos: Timo Starkloff



ACES History Part 2 - 1991

In this article, Martin Elmberg continues the story of early 1/12 scale WWII combat.

Continued roll-out

During 1991, IDA Dogfight continued to roll out across the world. At the Barkarby scale contest in Stockholm, Sweden, there was again a Dogfight-show during the lunch-break. However, the only country that had organized contests in a national cup was Norway, who at the time had some 20 competing pilots.



Close-up picture of the Helge Örbö Spitfire, in US markings. (Photo: Helge Örbö)

The US

If my memory serves me right, it was during 1991 Helge Örbö and Pål Engelstad flew across the Atlantic Ocean and then made a road-trip across the US, to promote IDA Dogfight. In doing this they among many others met up with Greg Rose, who set out to be the initiator of WWII Scale combat in the US. Eventually Greg succeeded in getting the 1992 Dogfight rules into the AMA (American Modelaviation Association) as the AMA event #704, but that's a later story.



Spitfire take-off, probably at a Barkarby Dogfightshow during the early 90's (Photo: Martin Elmberg)

Temporary halt

In the rest of Europe some Dogfight-shows were flown at model aviation meetings, but not many contests were arranged outside of Norway. I am not sure but some contest(s) may have been flown near Helsinki, Finland, during 1990-91. I have no official reports of it, so I don't know if it was real contests or more of a show.

In autumn 1991 bad luck struck Pål and Helge's model kit company, as the company's factory building burned to the ground, including all of the manufactured kits. For a moment this inflicted on the roll-out of Dogfight. But Dogfight survived this and new kit manufacturers emerged. In Norway the company Leikvold Dogfight Designs started making kits of 1/12 scale warbirds, the most well-known being the P-47 Thunderbolt which was used by 90% of the Norwegian pilots during 1992 and onwards.

Helge Örbö also started selling a Spitfire-plan, with some vacuum-moulded plastic parts similar to the previous FW190D-9 and Mustang –kits. So the scene was set for the 1992 Dogfight campaign...

Text and photos: Martin Elmberg

Model Zoom 1991: P-47 Thunderbolt

We continue to look at a particular model that represent the current year of the ACES history. This time we take a closer look at the P-47 Thunderbolt of Leikvold Dogfighter Designs.



The Leikvold Dogfighter Design P-47 Thunderbolt, built as a test for Swedish hobby-magazine All tom Hobby in 1994.

Balsa and G/F

While the P51 and FW190D-9 from 1990 used vacuum-moulded plastics to get the scale-like look, the P-47 Thunderbolt used a glass-fibre fuselage and engine cowl. In addition a nice 1/12 scale transparent canopy made the model look real good. The wing was built



traditionally using balsa with formers and full sheet covering. Most Norwegian pilots covered the wings with glass fibre reinforcement to strengthen the wings to cope with collisions. Stabilizer and fin were made out of balsa.

The Thunderbolt was allowed to use a .20 size engine according to both 1990 and later versions of the Dogfight rules. I installed an Irvine 20 ABC in my model, in addition to three standard servos, a receiver and a standard 500mAh battery. My model was covered by silver colour Solartex in addition to painting the fuselage in silver paint. It is noteworthy that at the time only one standard servo was used for aileron control, having this servo installed into the middle of the wing and using an aileron linkage to control the ailerons.



Flying

The P-47 was a joy to fly. It was stable during take-off and a good dogfighter chasing other models. Using an Irvine 20 ABC it had enough power to chase most competitors of the time. The P-47 had a relatively thick wing, more than 10%, and the forgiving airfoil gave it a good turning radius.

It was no wonder most of the Norwegian pilots started using this model during 1992. However, the P-47 had one minus and it was the price. If I remember correct it cost approximately 60 Euros, counted in the prices at the time. Another minus was that when involved in a crash, the glass fibre fuselage did not take much of the crash power. Instead the installed equipment like engine and radio gear took the impact and most often broke at a heavier crash.

Nonetheless, the Leikvold P-47 became a workhorse in Norway from 1991 and for many years ahead and played a major role in the history of WWII scale combat.

Text and photos: Martin Elmberg

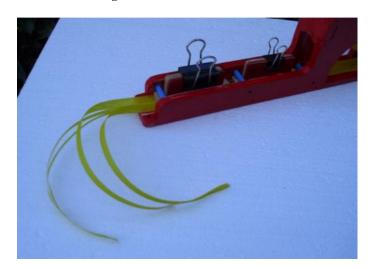
Streamer Cutting Machine

Over the last years, I designed and perfected this useful and quiet simple tool for aircombat contests. All of our ACES officials in Germany are equipped with one of these cutting machines, stuffed in a small bag.

The big advantage against many other ideas is, that this cutting machine not only works under nice and sunny conditions, but also in rainy and cold weather. With the simple change of the razor knife holders, the cutting machine can produce two or three streamers out of a streamer roll, depending on if they are used for WWII or WWI contest.

The tape rolls themselves are made for forest usage to mark trees. They are made of paper and 2cm wide. For example, they can be found on www.stihl.de, typing "markierungsband" in the search field.

This article explains how to build and operate the streamer cutting machine.



Construction and Operating Manual:

- 1. Download of the cnc-files from one of these links:
 - www.aces-headquarter.de www.aircombat.eu
- 2. There are two files with original dimensions:
 - Streamer Cutting Machine 2011 basic part 2x fräsen 4mmP-SP 160x300mm.plt
 - Streamer Cutting Machine 2011 knifeholder netto 200x130 2 mm F-Sp.plt

And the same two files prepared with BOCNC and 1.6 mm milling cutter, ready for cutting with the most CNC milling machines:

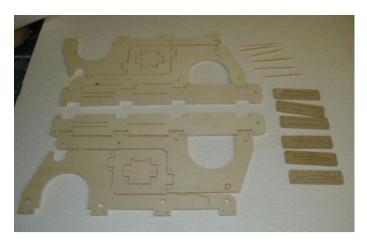
- Streamer Cutting Machine 2011 basic part 2x fräsen 4mmP-SP 160x300mm SE.plt
- Streamer Cutting Machine 2011 knifeholder netto 200x130 2 mm F-Sp SE.plt



And in the new version, there are two pdf files with German and English language.

ACES International

3. After milling, all parts are shaped and cleaned.



4. The doubled parts are glued together with the help of tooth picks, placed in the 2-mm-holes.



- 5. When the glue is dry, the contact surfaces are cleaned with a file, especially the edges and corners.
- 6. When parts are glued together, the bigger holes shall be on the inner side.
- 7. The holder for the cutting knife also consists of several parts, which are positioned and glued together by tooth picks. Make the first try with dry parts.



- 8. Begin with the basic plates, then the vertical middle plates which later hold the razor blades. The plates with the downward nose stays without glue.
- 9. After building the machine, all parts can be coloured to get them water-proof.
- 10. The knife slot has to be kept free of colour, also the thin slots in the knife holders. This can be achieved by using a cutter knife.



- 11. That the streamer can run freely through the channel, it should be cleaned with sanding paper, corn-size 600. In the picture above, you can see the traces.
- 12. Then I take a plastic tube of 5mm diameter, cutting it to a length that it can be sticked in the holes with little force. When they are too short and slip out again, there are two options. Cutting a new tube or place a 3mm srcew through the holes.



13. Finally you take a roundwood or plastic tube, that can be stucked in the socket at the top of the machine. This holds the streamer roll.

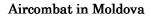
ACES I



- 14. The red razor blade holders are not glued together, they hold the knife safe with simple clamps.
- 15. If the razor gets blunt, just change it's position a little bit and you can cut further. For the double razor blade holder, it's best to have the razors at the same position to get good cutting results.
- 16. The knife holder shall not get stucked, otherwise the streamer tape doesn't run straight and the cutting result is bad.
- 17. If you make a notch in the knife holder for the blue plastic tube, the guidance is better and the knife holder weight is enough for clean cuts.
- 18. If you use both knifes together, you'll get small micro streamers for indoor combat.

Have fun with building the streamer cutting machine and aircombat flying!

Text and photos: Rainer Handt



The start of aircombat in Moldova goes back to the year 1999, when Igor Bereket read about this sport class in a Russian magazine. It took a while to find more interested people and establish an own national cup. To this day, pilots from Moldova are visiting own and foreign contests and the country itself is a full and active ACES member.

In 2000, Igor Bereket visited Dima and Artem Yakovlev in Belarus, got more information about aircombat and decided to build a model. This Yak-3, first 1/12 aircombat model in Moldova, took off for his maiden flight in November 2000.



November 2000, first flight of an 1/12 aircombat model Yak-3 (pilot I. Bereket)

At that time, Igor did the first translation of ACES aircombat rules to Russian language. After that some more pilots started to build such models. April 2001 was the first combat in Moldova with only two models.



April 2001, the first aircombat in Moldova with only two models



October 2001, the first flights with models of the radio battle in Moldova





May 2002, the first battle of seven models in Moldova



August 2002, the first pilots of Moldova (from left to right): N. Balan, S. Akulov, Popovich, I. Bereket

A first team of aircombat pilots was formed in 2002, and at the contest in May, already 7 planes took part.



April 2003, training: Iljushin IL-10, Bell P-39, Messerschmitt Bf 109, Hawker Tempest Mk.V, Spitfire Mk.V

Igor worked together with Alexander Malyshev. Alexander contacted the ACES International Coordinator and Moldova became a member. The first Eurocup was organized in 2004.

Today, ACES Moldova has about 12 to 25 active pilots, organizing three to four contests every year, including one Eurocup. From these results, the winner of the annual Moldova Cup is determined.

Since Aircombat is mainly flown in Europe and Moldovas location is far in the East, pilots from Moldova are constantly driving long ways to visit Euro- or Worldcups. To take part at WASG 2010 in Germany, they've had to drive about 1.700 kilometres with family, planes and stuff for one week camping – one way!





Text: Igor Bereket and Timo Starkloff Photos: Igor Bereket

Season Start 2012 in Germany

On 25th February we've had our first contest in 2012 in Ahlen, in the North of Germany. Despite the bad weather report for this day, 29 pilots took part in contest, all of them in WWII, 8 additionally in WWI.



Briefing



Eddy "Comicflyer" with his Corsair and XP-37



 $the\ traditional\ air combat\ transport\ case$



Henriks Blohm&Voss project, an unusual twin-engine



very nice Fw 190 As and Ds from Axel



age

	battle dam
$egin{array}{l} WWII \ 1^{ m st} \ place \ 2^{ m nd} \ place \ 3^{ m rd} \ place \end{array}$	Mark Welker Jan Siebenhaar Rainer Handt
WWI	
$1^{ m st}$ place	Jürgen Richter
2 nd place	Stefan Kuner
3 rd place	Jan Siebenhaar

Text and photos: Timo Starkloff



Oldtimer Meeting Hahnweide 2011

Searching for new ideas? Best thing is to watch the originals!



remembering the film "Those magnificent men in their flying machines"?

Every second year, there is a great meeting of old airplanes in Kirchheim/Teck, South-West Germany. The meeting is managed by the local flying club, with a big effort of many helpers.

Planes like the Bleriot take part, vintage gliders, Biplanes from the 30s, the fast WWII fighters and many interesting types from the 50s to the 70s.



mail plane from the golden years of flying



nice and colourful WACO biplane



Boeing Stearman

Some of the highlights this year have been the traditional Ju-52 meeting on Friday, the anniversary of the Fi 156 "Storch", two rare American Flying Boats and the first visit of the Me 262 from the "Messerschmitt-Stiftung".



the last flying one of its kind on a world tour



huge Catalina flying boat

No matter how accurate models are build, one thing is always missing – the sound. Listening to those old engines is just music. Names like Pratt&Whitney, Daimler-Benz, Bristol or Rolls-Royce are famous in aircraft history, and their engines are as interesting as the planes they lift up in the air.





the old "Tante Ju"



Focke-Wulf "Stieglitz"



the 109 and 262 in tight formation



impressively fast and powerful Sea Fury



what would be an airshow without a Spitfire?



Yakovlev Yak-3



B-25



fast and quiet Lightning



Mustang in the landing pattern



Noratlas transport plane



Bölkow "Junior" sportsplane from the 70s



OV-10 Bronco

Text and photos: Timo Starkloff

Flightglobal

Last but not least, I have an interesting aerospace link once again:

http://www.flightglobal.com/pdfarchive/index.html

Old issues of this magazine are available as pdfs in a huge database. A simple search function helps a lot, when looking for special aircraft types.

Interesting for aircombat research is especially the wartime period. The magazines from this time are full of many details about the concurrent airplanes. It's quiet interesting, that these detailed informations aren't classified in those times.



Text: Timo Starkloff Photos: Flightglobal



ACES Links and Contacts

In the end of 2011 we've had international and national elections for administrative jobs inside ACES. So be aware, that some of the contact persons may have changed.

Links:

International Aircombat Forum http://aircombat.modelarji.com/

CoRe, Rules and Regulations www.aircombat.eu

ACES Headquarter

http://www.aces-headquarter.de/

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