

World-known transport airplane for REFLEX XTR²

Lockheed C-130 Hercules

rendering a huge real model scaled 1:6.5

Actually, this airplane needs no introduction, but if it does, [Wikipedia](#) has it quite well. Which model flier would not love to fly a Hercules, at least as a model? Someone built even a giant model, scaled 1:6.5 with more than 20 ft wingspan and more than 140 lbs weight, which is powered by four ZG-38 gas engines. There was an article in a model flying magazine, but in the Web I found only the remark at [Toni Clark's website](#).

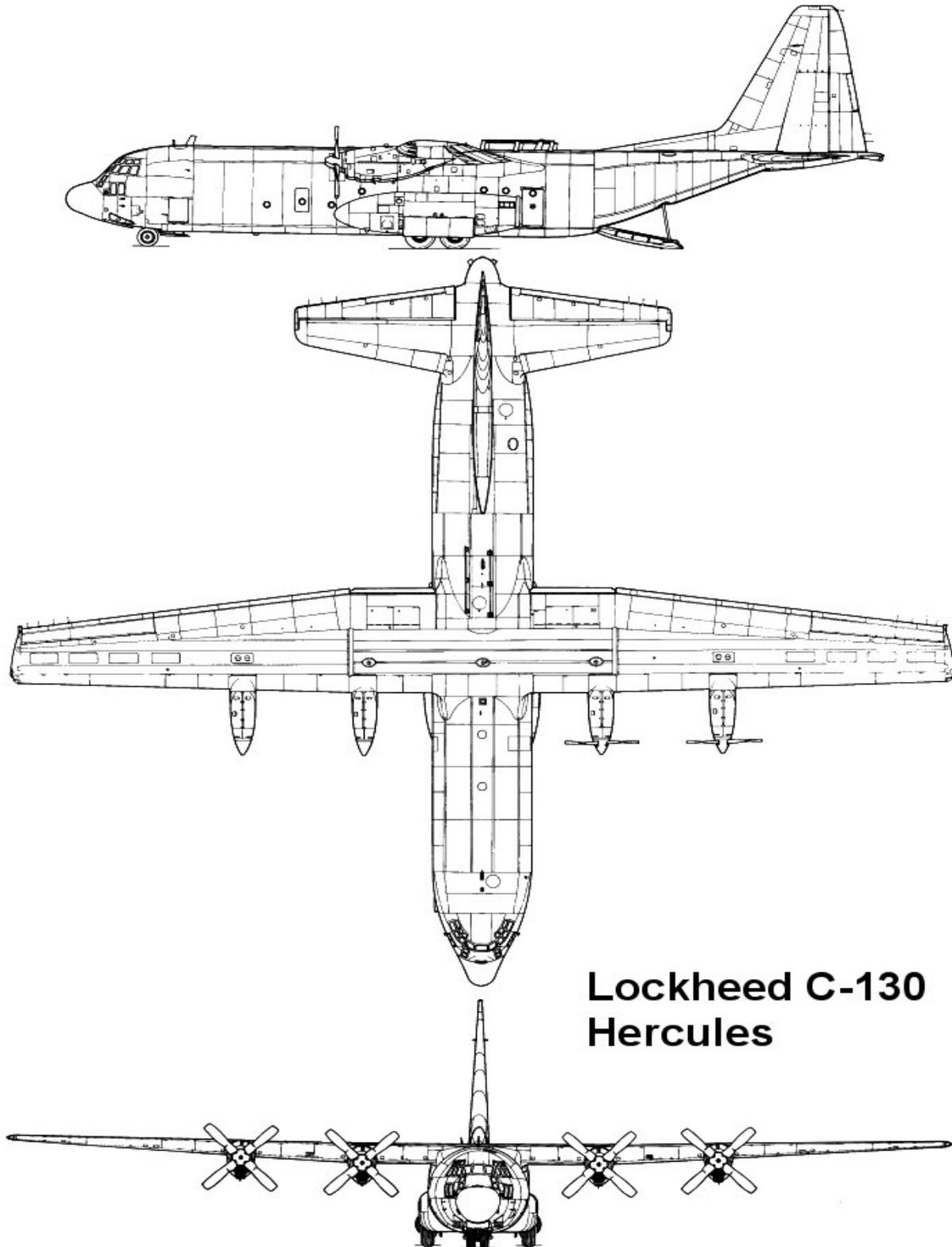
Anyway, the Hercules is a great airplane and a giant model is even terrific. Probably we won't be able to build and fly it, though, at least not in reality. But a virtual model is possible and here you have one for REFLEX XTR². (And I added a heavy ZG-62 version, a 1:8 ZG20 version, and a 1:12 AXI 2208 version.)



World-known transport airplane for REFLEX XTR²

Lockheed C-130 Hercules

From Richard Ferriere's website <http://richard.ferriere.free.fr/>:



The REFLEX model

In November 2009, our fellow modeler Jürgen Dreyer (ham call sign DL3FY) built the nice Hercules model (with 20 ft wingspan and 100 lbs weight) for REFLEX XTR², based on a model for the free simulator FMS. The result looks quite attractive in the simulator (and flies just as well).

Jürgen generously shares all his simulator models by offering them for download, in this case at www.Aeromodelisme.org (the Hercules is [here](#)) and at [RC-Sim](#) (the Hercules is [here](#)), and he even kindly permitted to bundle his model appearance with my parameters.

In REFLEX XTR², a model consists of a model file for the visual appearance, a parameter file for the flight characteristics, and two sound files for the drive sound. My parameters have been made to render the model absolutely true-to-original, following the three-view drawing shown above. That's why I had to adapt the landing gear and the flaps of Jürgen's model to my parameter settings. While I was at it, I re-sized the virtual model and embellished a few things.



Here the REFLEX model has been put into the Frozen Lake Constance scenery. Compared to the person on skates shown there you may see how big or even huge the model is.

Anyway, now someone who wants to try my Hercules model parameters needs the modified model appearance as well, so Jürgen's permission was required.

Both at Aeromodelisme.orG and in the archive downloaded from there you will find his following description:

Modell : Hercules_C-130
für den Reflex XTR Modellflug-Simulator

Modell created by ... : dl3fy (Juergen)/ Nov 2009
E-mail : juergen_dl3fy@yahoo.de

Die Spannweite beträgt 6,2m und das Abfluggewicht ist 45kg. Sofern die "Flugzeug"-Konfig-Datei in der Vergangenheit nicht geändert wurde, wird jedoch die Spannweite auf 6m und das Abfluggewicht auf 40kg begrenzt was aber fliegerisch kaum etwas ausmacht.

Installation:

ZIP-File in's Verzeichnis "\Flugzeug\" entpacken lassen. Dort entsteht dann das Verzeichnis "\Hercules_C-130\". Dieses Verzeichnis enthaelt alle benötigten files.

Im Verzeichnis befinden sich zwei sound-files. Bei Bedarf also einfach den anderen auswaehlen.

Das ist alles ... Modell selektieren und "freuen" ! -

Eula/Bestimmungen:

Es ist nicht erlaubt mit diesem Modell Profit zu erzielen. Freies kopieren und weitergeben sowie das hinterlegen auf Modellflug-Servern ist ausdrücklich "gestattet" ! -

Viel Vergnügen & Gruß Juergen, DL3FY

Files

The new installer program will install the model only for REFLEX versions 5.09 and newer and therefore no longer under MS Windows Vista and earlier versions. If you have any back version 5.05.x, you should use the free online update function. If you have an even older REFLEX version, you may get an upgrade to the latest in the [web shop](#).

However, even for that the new, better standard (stock) sounds are *not* installed. That's because Jürgen included a terrific original turbo-prop sound and even a sound of the ZG38 engines used for the real model. The turbo-prop sound (sound „C-130_FS9“) is set as default for the simulator model, but you may try the model sound as well (F5 Model parameters, sound “C-130_ZG38”).

Simulation Settings

Very useful when flying the Hercules model is the data display in REFLEX. You have to show the REFLEX transmitter (in the menu “Radio”, check “Radio display” and activate the “TELEMETRY” tab there.

Even though the Hercules model is very big, it's often hardly visible because you have to fly it widely and distantly around. That's why I have set the following values in F6 “Simulation parameters”, “Camera”:

Camera sluggishness	50	[%]
Camera predictive	30	[%]
Camera zoom factor	0.005	[1/m]
Camera aperture angle	80	[°]

In REFLEX you may try the flight behavior in case of engine failure. Go to the „Simulation parameters“ (F6), „General“ tab, and set „Probability of engine failure“ to 0.5 %/s or experiment with different values.

Demonstration Flight

Just to give an impression of the huge C-130 model's basic flight characteristics, I recorded an unskillful but still informative demo flight. To view it, hit F9 in REFLEX and under “Aircraft” select “Hercules in Muncie”.

The landing gear behaves strangely, but just never mind! You'll see how such a huge model still can be flown in a confined airspace and airfield. You may find it sluggish, but it's simply slow and smooth.

Flight Characteristics

The Hercules model is huge, and the original isn't a small airplane, either. As a military transport airplane it's designed for fast cruise flight, but short take-off and landing as well. It has to be well-behaved so you may be unconcerned when pushing the limits on small airfields. The model, at least the simulator model, inherited the excellent characteristics of the original.

It's not an aerobatic model which just follows the pilot's control inputs. Due to its size and mass, it requires foresighted control and good estimation of what is possible. Flying this airplane as intended requires just as much precision as precision aerobatics and is similarly challenging. It's not at all comparable to the so-called 3D aerobatics. How Jürgen put it nicely: You have to fly the Hercules "species-appropriate".

The big model can do with a quite short take-off roll distance, due to the relatively big wing with effective flaps. Additionally, the 0.475 thrust/weight ratio is quite high, even if it may seem very small for modern models. Anyway, full-size airplanes have even less. The Hercules model's landing roll distance on grass runways is about as long as the take-off roll distance, thanks to low touch-down speed due to big flaps deflected 50 degrees. On paved runways, the landing roll distance is surprisingly long because there are neither thrust reverse nor wheel brakes in REFLEX. You have to be prepared for that and have to touch down at minimum speed on the very beginning of the runway.

If flaps are deployed, you may pull even full elevator without risking a stall or a wing drop. Stalling without flaps is different, though, but it should be practiced at decent altitude, anyway. Due to 3 degrees wing washout and a "docile" wing airfoil (NACA 2215 for the REFLEX model) the Hercules will never be vicious.

Due to the big mass (weight), pitching the airplane with the elevator results in quite slow and comfortable movements. Much damping makes the Hercules very slow in changing its pitch attitude automatically if power or speed change. Therefore you have to adjust the correct attitude for a given flight speed with elevator, in spite of the very big 32% static stability margin. On the other hand, you may use the model's inertia to let it change to another attitude automatically. For instance, you may reduce power during a climb and the model will level off automatically. You just have to know the correct power setting in advance.

The ailerons are effective, even if they may not seem to be. A wing with this big span and at this quite low flight speed is just not able to roll fast. But at any rate, there's enough time to begin and end turns properly. Set the proper bank angle with ailerons, then pull a bit elevator to get the necessary lift. The increased drag is canceled by a bit more power, set at the same time as

pulling the elevator. End the turn in reverse order, first let the elevator go and reduce power, then level the wings with ailerons, all without noticeably affecting attitude or speed.



The flaps are the Fowler type enlarging the wing area. Besides, they deflect up to 50 degrees what is possible due to a slot and due to boundary layer control on the original. Most important, they are hit by the propwash of the four propellers what makes for much lift, if only the propellers are blowing. That explains why the lowest touch-down speed is achieved at high thrust. The flaps produce so much drag that the airplane doesn't accelerate. These effects are basically rendered in REFLEX.

Of course, flaps are needed for low take-off speed as well. About 15 degrees, that is $\frac{1}{4}$ to $\frac{1}{3}$ of the 50 degrees maximum deflection, noticeably increases lift without noticeably increasing drag. In no case the flaps cause big trim changes, what contributes to the easy handling of the model. Safety is good as well because take-off and climb are possible even with flaps fully deployed. Only in case of engine failure you should make do with half deflection, but should not do without flaps, either.

Tips For Flying

When model flying, you don't sit in the airplane, you have no feel of the control forces, and you have no instruments in front of you. However, you can very well control the model by watching its flight attitude. That's not quite as easy with a giant model due to its sluggishness, because you have to intervene early and with only small control inputs.

Therefore, the data display in REFLEX is quite useful ("TELEMETRY" in the REFLEX-transmitter). Especially horizontal and vertical speeds are important (AIRSPEED and CLIMB, in kilometers per hour km/h and meters per second m/s, respectively). If you know the proper flight speed for certain flight modes in advance, it's easier to adjust it watching the data display.

The flight speed at which the fuselage is level, which is the cruise speed, is about 85 km/h at about half power (throttle). Due to the sluggish (mass) and slow (size) movements of the airplane, you have to set not only power to about 50% but also that level fuselage when reaching cruise speed. Then you have to watch how the model behaves and maybe adjust a bit. If you want to fly faster, more power and a bit down trim are required, of course.

Landing approaches should be started with ¼ to 1/3 flaps, that is in the first place reduce power decently and apply a bit up elevator to reduce flight speed at level altitude. When speed comes down to 70 km/h, flaps may be set and power may be increased again, now to about 40%, or you commence descent at low power, at 65 km/h in both cases. You may as well set flaps when starting a turn (instead of pulling elevator) because more lift is needed and speed decreases, anyway.

During the landing approach finally full flaps are set, either on final approach or final turn. Flying with full flaps requires much power, in turns even very much! Even with flaps fully set, the airplane's nose should point a bit down on final approach, so flight speed is big enough for a smooth flare. If the fuselage is level or even pointing a bit upwards, you have to use much power to haul the model to the touch-down point and have to touch it down with power still set. Minimum touch-down speed can be as low as 55 km/h.

While a short landing done that way requires a bit practice, a short take-off is quite simple. That is, the Hercules makes it simple: set full power and pull full up elevator and wait till she takes off. While she pitches up, let the elevator slowly go and if you do it right she will then climb steeply and "hands off". Normal take-off is less spectacular because you just let her run and later pull a bit elevator or even just wait till she takes off automatically.

Of course, take-off is done with ¼ to 1/3 flaps. For transition to cruise flight you may just retract the flaps. Since the airplane is quite slow during climb, it will now lower its nose and accelerate. When it reaches cruise speed just set cruise power. Another method is to push the airplane to level attitude

with elevator and then retract the flaps. This should be done slowly since you have to pull so much elevator that the airplane doesn't sag. Yet another method: Long climbs are better done with flaps retracted. After the initial climb and after reaching of about 65 km/h flight speed, the flaps are retracted and the airplane "held" with elevator.

In REFLEX you may try the flight behavior in case of engine failure. Go to the „Simulation parameters“ (F6), „General“ tab, and set „Probability of engine failure“ to 0.5 %/s. Take off and see what happens...

Well, not much will happen, the Hercules is very docile. You may practice completely unconcerned. With only two running engines on one side even take-off is possible, of course with a lot of rudder against the running engines. In flight it's hard to find out which engine stopped. However, you may carefully fly the Hercules nearer to you until you are able to identify the dead engine and then set or trim rudder as required. Of course you have to adapt the amount of rudder when you change the power setting.

By the way, standard turns require no rudder because aileron differential avoids adverse yaw. In slow flight, especially with flaps deployed, though, a suitable amount of rudder in addition to any aileron deflection is advisable.

More Model Versions

In the first instance, the REFLEX model renders the real model with 20 ft wingspan and 140 lb weight. If it's seen as true to the original C-130H, also in flight behavior that is, then it corresponds to an only slightly loaded airplane of 95,250 lb weight (75,800 lb empty weight). That explains the good performance of the model.

For comparison the model has been modified to correspond to the fully loaded original with 155,000 lb weight. The model's weight is now 230 lb what is still no problem. The moments of inertia around all three axes are a bit bigger and the landing gear has to be strengthened. The ZG38 engines are no longer powerful enough, though. The considerably stronger ZG62 are needed to keep the 0.48 thrust/weight ratio and have enough acceleration for take-off. The propellers have to have more pitch because the airplane's weight increases all flight speeds considerably. Instead of 85 km/h, cruise speed is now even 110 km/h, again at about half throttle.

Due to the powerful engines even this heavy model performs quite well. Take-off requires more time and roll distance, though, because the model has to be accelerated to higher speed. Accordingly, landing roll distance is longer because the higher touch-down speed has to be dissipated. Landing roll distances are even considerably longer. For instance at the AMA flying field in Muncie the whole tarmac runway is used and at the field of the MFC Silbergrube in Austria more than half of the long grass runway. All that seems quite realistic and informative when compared to the light version.

Just out of interest another two model versions were created, both rendering a nearly empty airplane. The 1:8 version with ZG20 engines has 16.5 ft wing span and weighs 88 lbs. The 0.55 thrust/weight ratio makes this a quite powerful version. The sound of the ZG38 engines has been assigned. The 1:12 version with AXI 2208 motors has 11 ft wingspan and weighs 26.5 lbs. The "normal" 0.46 thrust/weight ratio makes this version even more true-to-original. The assigned sound of Hacker B20 motors with gears seems to be typical for a model.

The following consideration of airfields for the Hercules is based on the first version with 20 ft wingspan and 140 lbs weight.

Sceneries

Once you are proficient in flying the airplane, you may and even have to learn to know and master the peculiarities of "difficult" airfields. In REFLEX that's not different from "real life". Many REFLEX sceneries (airfields) are suited for the Hercules but some are more challenging than others.

Let's go on a journey as if the US Navy would be visiting model airfields. By the way, we can't call us a pilot in this case since that is something different in seafaring. In the Navy we would be called an airman.

First, consider three American fields with paved runway in REFLEX: Arizona Model Aviators, Propnuts Las Vegas, and AMA (Muncie). Enough runway for practicing, even if approaches and touch-down points are a bit hard to estimate and the evening light needs getting used to.

The field of the MFC Salzburg in Austria has a tarmac runway and a grass runway, both quite short and sloped. This begins to be challenging, but the field is very nice.

In "virtual Germany" (REFLEX), mainly grass airfields are interesting for the Hercules: FTG Borstel-Hohenraden, MFG Heist, Modellflugverein Große Heide, or MFG Tangstedt. Especially the latter has a grass runway just sufficient for the Hercules and a fence on one side. There are even two sceneries rendering full-size airfields: Hahnweide (Kirchheim Teck) with big grass runway and a paved taxiway, and Ganderkesee with big tarmac runway and some wind set as default.

In addition to the REFLEX stock sceneries, there are very nice sceneries made by independent authors. They are well worth to be visited by the Hercules.

One hint in advance: The data display in REFLEX is quite useful here as well ("Radio", "Radio display", "TELEMETRY" tab), now especially the model's HEADING (in degrees). If you remember the runway direction, you may steer the correct course on the downwind leg by watching the data display. Only visually estimating the course just won't work in the simulator. Remember the simple rule: Opposite course is course plus (or minus) 200 minus (or plus) 20.



Here is the Hercules parked on the apron of the former military airfield Peenemünde on the island Usedom in the Baltic sea. Along the apron's edge in the background you may take-off and land, and you may taxi around the whole apron as you like it.

Many obstacles are hard to estimate and you should always maintain visual line separation. The grey-white aircraft easily disappears in the haze if you fly it too far away. However, in the simulator it's always found in the center of the display screen.

The scenery's author, Harald Bendschneider, offers even more nice sceneries at his website www.Szenerien.de. A visit is absolutely worth it. (And do him the favor and click on the ads!) If you're in a hurry, here's the direct link to the download: [Flugplatz_von_Peenemuende](#).



This is Heringsdorf airport (Flughafen Heringsdorf in German), as well on the island Usedom in the Baltic sea, and as well photographed and rendered by Harald Bendschneider. Diffused light after a rain shower makes this scenery especially appealing, and Harald elaborated apron and taxiways with unevenness and obstacles. Here is much room for practicing, including landing on the smooth tarmac.

Again I recommend to visit Harald's website www.Szenerien.de (and click on ads there). For those in a hurry the direct link to the download: [Flughafen Heringsdorf](#).



This is St. Johann im Rosental, the airfield of the MFG Klagenfurt club in Austria. The famous Hanno Prettner once practiced here. This scenery has been made by Horst Lenkeit, who unfortunately passed away all too early.

The tarmac runway is 500 ft long what is quite short for Hercules landings. You may use the grass runway next to the paved runway, though. The flying field has the traffic pattern unusually laid around the club house, but it's easy to fly. The far away trees should still be treated with respect. The touch-down points are hard to estimate because there's no real model shadow on the meadows before them.

Download [here](#).



The MFG Uetze club flying field scenery has been made by Horst Lenkeit as well. The nice November weather with bright light and much room for flying around are just great. The few obstacles should be watched with even more respect.

The approach to the rather short concrete block runway is hard to estimate, the one from the left side due to the distance, the one from the right side since you see the runway only immediately before touch-down. Actually, the paved runway is too short for the Hercules, but there's enough short grass before and behind it. Both approaches are completely free of obstacles, so you may be unconcerned when practicing spot landings with short roll-out.

Download [here](#).



Again, this scenery, showing the nice field of the MFC Coesfeld club, has been made by Horst Lenkeit. He has done very hard and even rendered the tall grass next to the runway, but unfortunately nearly nobody appreciated his hard work. In hot July weather, the field in a wide rural area seems very calm and peaceful.

There are two crossed runways, just mowed grass amidst rather tall grass. One of the runways is quite long and easy to fly on. The other one is short and narrow and hard to hit, mainly because there's no model shadow on the ground in front of it. Here you may train your estimation ability.

Download [here](#).



This scenery is something special. It's the frozen Lake Constance, in January 2006 photographed by Thomas Roden of the FSMC Konstanz club, which had an ice flying meeting there. The scenery has just a big slippery surface without landscape and obstacles. The fun is in flying in the backlight over the ice, landing the model without seeing a noticeable shadow, and then slide the model around on the ice. After a bit practice that's no problem.

Download [here](#).



That's the field of the Aero-Club Bad Oldesloe, photographed and rendered in December 2005 by Harald Bendschneider. Very nice light makes for a good atmosphere, trees on three sides of the runway make for interesting flying. Take-off is no problem, but landing is, due to the packed snow. Taxiing is quite easy after a bit practice. In the middle of the runway, where the pilot stands, is an interesting "knoll", which may let the airplane bounce.

Again I recommend to visit Harald's website www.Szenerien.de (and click on ads there). For those in a hurry the direct link to the download: [Aero-Club Bad Oldesloe eV](http://www.Szenerien.de).



Martin Kneth spectacularly rendered the flying field of his club, MFC Silbergrube in Austria. It has nice landscape, much room for traffic circuits, and a long and wide, smooth grass runway. As always, you should respectfully fly around, or even better, over the obstacles because it's impossible to estimate their distance. That holds for both ends of the runway, but you may literally "approach" them since the runway is long enough. By the way, it's distinctly sloped to the left side. On this airfield you may familiarize yourself with the Hercules before visiting really "difficult" airfields.

Download [here](#).

Martin is a terrific panorama photographer, and he loves warm colors. For a simulator scenery, rather realistic colors are advisable, so by my request Martin revised the colors of the panorama picture. I somewhat "embellished" the lighting and put the scenery into an installer program. Unfortunately, Martin didn't publish this installer, but if you're seriously interested in this scenery you may write me an e-mail.



Dieter Meier has long since become an institution in the German model flying scene, and he is a well-known author in model flying magazines. He is even the owner of this flying field and makes it available only to his club, the Viertaktfreunde Eimeldingen (VTFE), or Four-Stroke Friends of Eimeldingen in English. Even though they fly nearly exclusively electric models by now, we are all allowed to use this field in REFLEX, regardless with which models. Dieter photographed the field in nice weather so the nice landscape comes into its own. Harald Bendschneider turned it into a scenery for REFLEX.

Remarkable is the really nice atmosphere – I find the field spectacular. The grass runway is a bit wavy but smooth, the airplane rocks on it like a rolling ship. The runway is easily long and wide enough, so you may practice and fly around without restraint. Both runway ends are quite easy to estimate but have small obstacles, a grain field and a wire fence. Again an airfield where you may familiarize yourself with the Hercules.

Visit Harald Bendschneider's Website www.Szenerien.de and click on ads there! For those in a hurry the direct link to the download:
[VTFE- Viertaktfreunde Eimeldingen.](#)



Simply a meadow near Bargteheide in northern Germany, photographed and turned into a scenery by Harald Bendschneider in April 2006.

Take-off and landing are not hard due to well visible model shadow, but spot landings are not possible in the absence of "spots" in the meadow. Instead, the trees on three sides of the meadow are challenging, mainly those ahead and those "behind your back". In no case it's possible to estimate the distance to the trees, but the trees ahead are lit by the sun. So you can see by the shadow when the model flies over the trees. On the other side you can only guess.

Further away, the model disappears in the spring haze and you have to learn to control it only seeing its horizontal movements. After all, its attitude is not visible but only indirectly derived from these movements. That's a skill which every model flier could sometimes do with. The Hercules is so well-behaved and gives so much time to respond that you may well practice this skill here.

From Harald's Website you may download the original version of this scenery: [Wiese bei Bargteheide 2](#). Actually, we had improved it a bit and put it into an installer program, but this version is not on Harald's website. Write me an [e-mail](#).



Again by Harald Bendschneider, the new field of his club MBG Bargteheide, still under construction. Nice surroundings with a gravel pit lake, which is not interesting for the Hercules, though.

The grass runway is smooth but short. The touch-down points on both ends are easy to hit, but the landing has to fit snugly or you'll have a problem in the end (of the runway). The trees in the background are no problem due to the climb power of the Hercules, but you should still carefully avoid them.

Again I recommend visiting Harald Bendschneider's website and clicking on ads there: www.Szenerien.de. For those in a hurry the direct link to the download: MBG-Bargteheide.



Urs Stocker rather „informally“ photographed and rendered the flying field of his club MFG Rätia Chur. Yet it has become a very nice scenery – again I would say spectacular. The gorgeous “scenery” around is the upper Rhine valley near Chur in Switzerland. The field is a mowed meadow in a military area named Rossboden. It's perfect to practice take-offs and landings, just back and forth with the Hercules until you are able to do it blindfolded.

The field is just big enough for the Hercules. There's only a small runway reserve for take-off and landing, the width is just sufficient to veer the airplane. On both sides are safety fences as obstacles, only both ends of the runway are clear. But at the end visible in the picture, the terrain behind the runway rises considerably, and behind this slope is a small street. You have to come in high until you can see the model shadow in the last moment and then immediately “smack” the airplane on the runway. The Hercules doesn't care much, but don't push too hard!

The trees around the field are respectable obstacles which proved to be the downfall of many a model...

Urs offered the scenery for download, but only covertly and for a short time. Later I embellished it for my own use. If you're seriously interested in this scenery you may write me an [e-mail](#).



René Giretzlehner rendered the Pehersdorf model flying field of his model flying club MFC Schönau in Austria with spectacular photos. The obstacles in the surroundings are not exactly elaborate in the scenery but you'll hardly notice that when flying.

The field is located in a beautiful rural environment and is itself beautiful as well. It's not easy to fly on it with the Hercules, though. The runway's slope and the trees at it's lower end make landings challenging. After a high and steep approach over these trees in the background one has to hold off with much power for a gentle touch-down. In the opposite direction (downhill) the approach has to be low and slow, the engines idling, to touch-down early and have enough runway left for the landing roll.

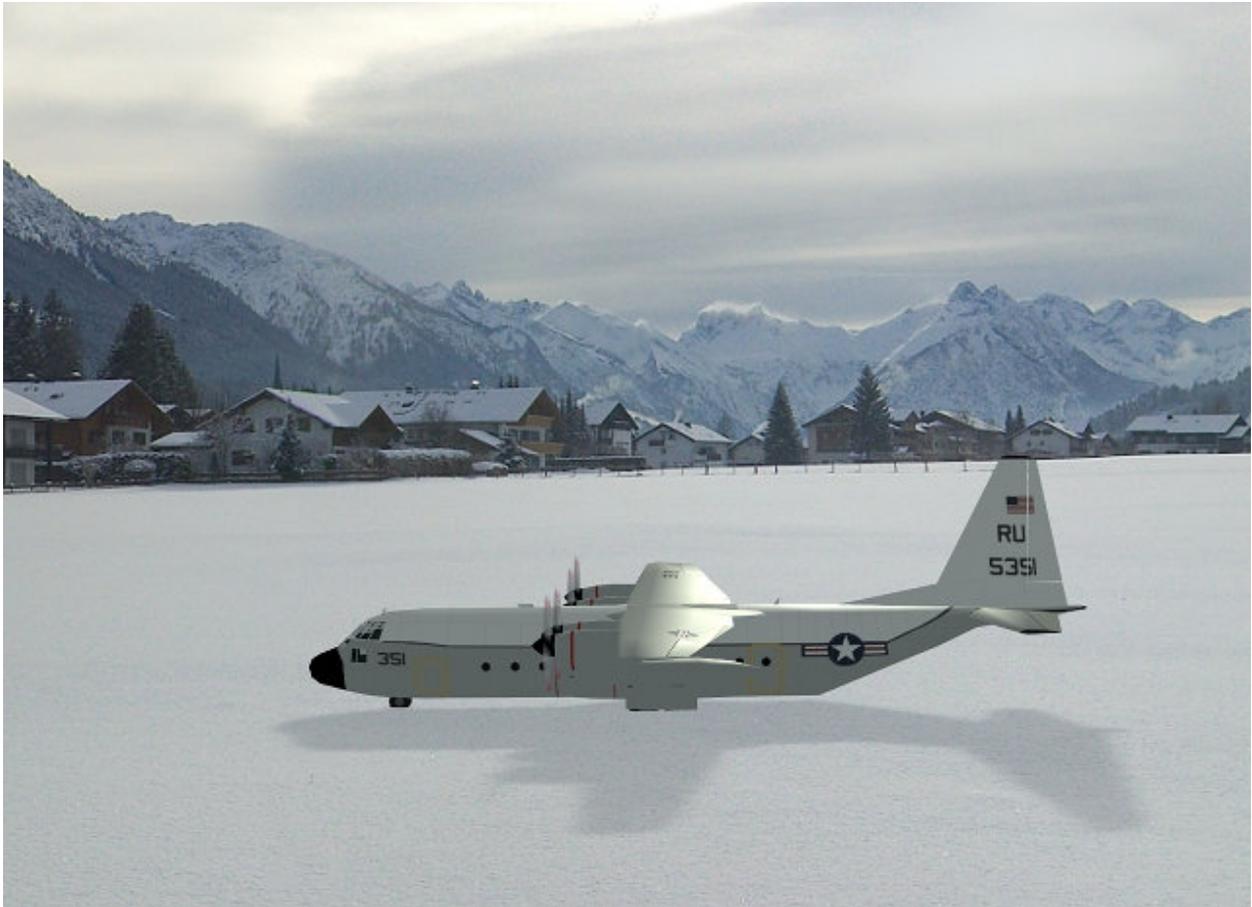
At the download page of his [MFC Schönau](#) model flying club, René offers five different versions of his scenery. The photos are top-notch quality. I would recommend the third version, "18. Mai 2008: Frühling/Sommer Pehersdorf - Aufgehellte Schatten", because in the other versions the colors are too spectacular for me. I even changed white balance and saturation and "improved" some things (orientation, light, forbidden zone) for my own use. If you're interested in my version you may send me an [e-mail](#).



Ronald Bankert photographed the big meadow on the outskirts of [Fischen im Allgäu](#) in September 2007 when he was on vacation there. Since 2008 it is available as a scenery with a beautiful landscape around. The nice weather contributes to the enjoyable atmosphere when flying in this scenery. Of course it would be not allowed to fly here in reality, but in the simulator we don't bother or even endanger anybody.

The many obstacles around make the scenery even more interesting, and they are so far away that they don't trouble us. The Hercules has so much power that you may take off in any direction, in a pinch immediately veering off when airborne. For landing approach, there are several "lanes" leading to the meadow where is enough room for a gentle flare. It's interesting to fly up and down as well as alongside the slope to the west of the meadow.

Ronald even improved the scenery, editing the photo, adjusting light and shadow accordingly, and adding background noise (for the highway to the west of the meadow). In an installer program, the scenery finally has been published [at his website](#).



Ronald Bankert photographed the big meadow on the outskirts of [Fischen im Allgäu](#) again when he was once more there on vacation in December 2009. On the 21st of December, we are looking from exactly the same place on a wonderful snowscape, illuminated by a winter sun dulled by some haze.

That alone would make for an interesting scenery, but in addition there are wintery light effects like pale shadows or glare. The snow on the ground seems to be quite compact as the Hercules doesn't cave in much and rolls quite easily. Actually, it feels like taxiing on grass. Besides, the model doesn't leave any marks what must have been the same in reality, though, because Ronald as photographer didn't leave any footprints, either. Weird...

At Christmas 2012 Ronald had offered the scenery for testing but had withdrawn it after a short while. Then, the scenery has been improved, packed in an installer program, and published together with the summer scenery (see page 25).

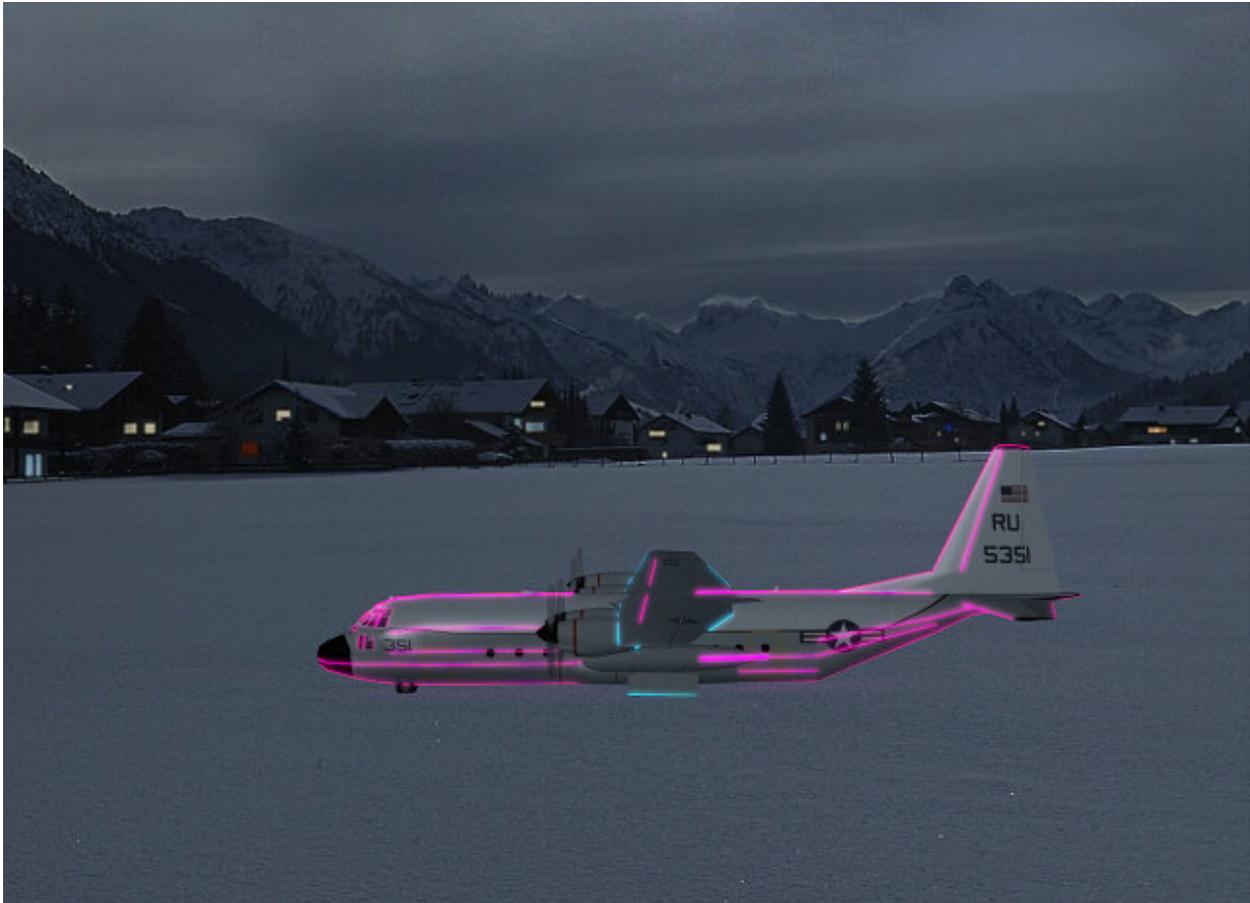


Perhaps Ronald Bankert eventually wanted to have the big meadow on the outskirts of [Fischen im Allgäu](#) also as a night scenery. Maybe this brilliant idea was sparked when REFLEX brought out the night flying simulation. In any case he needed a panorama picture at night without having to travel to Fischen again. He solved the problem applying the American Night technique.

This movie [technique](#) modifies a picture shot in daytime in a way that it looks like a real night shot (hence also called Day for night). The winter picture with its dim light but bright snow areas was perfectly suited. The picture's brightness is reduced while contrast is increased and the shades of blue are intensified. Ronald even bothered "illuminating" several windows with an image manipulation program.

The result is full of atmosphere. Now the sun appears like a bright full moon so you can fly models without lighting. Sitting in a shaded (and heated) room in front of the simulator you may really enjoy winter flying without cold hands and feet.

This scenery was as well offered by Ronald at Christmas 2012 but withdrawn after a short while, and has been published later together with the summer scenery (see page 25).



Perhaps Ronald Bankert actually wanted to have the big meadow on the outskirts of [Fischen im Allgäu](#) also as a scenery for the REFLEX night flying simulation. The simulator varies a scenery's brightness from dusk to darkness. Two appropriate pictures are needed and in this case that are just the two Fischen winter pictures. The picture above shows a brightness near darkness and the luminous elements which are automatically applied to the model by REFLEX. It shows as well that there is no shadow. (In other places, there is shadow from a wrong direction.)

That looks somehow unnatural in such a scenery. The "moon" and the shadows considerably contribute to the impression of reality one should have in the simulator. The luminous elements are a matter of taste but could be replaced by such you could apply to the model (in the model builder program RMK). The whole night flying simulation in REFLEX is made "quick and dirty" and could be improved.

Maybe that's why Ronald offered "Fischen in Winter" at Christmas 2012 but withdrew it after a short while. Anyway, he published it later, again together with the summer scenery (see page 25).



This is going to be tricky! On this narrow highway, you have to steer strictly centerline or the Hercules will hit an obstacle, go downhill to the right, or leave the dam to the left side and dive into the Rhine Canal to join the really big ship there. For landing, you have to hit the centerline again and land so short that a later takeoff is possible in the same direction. Veering the airplane is not possible.

Paul Dürr created several great sceneries from places in his homeland Black Forest and around in south-western Germany. You should visit [his web site](#) and see yourself. This one is "Rhinau-Insel (Süd)" (Rhinau Island South). You may download this scenery directly [here](#) but you would miss the other sceneries, which are not at all ordinary flying fields but quite unusual places for flying a model airplane or even a model helicopter.



This is going to be even more tricky! In this quite narrow valley you have to exploit the full climb power of the Hercules (and 15 degrees flaps) to take off and get out of it. It can be done in the direction seen in the picture or in the opposite direction, as well as landing (with 50 degrees flaps). Departure as well as turns and approach have to be exceptionally steep. For me this is as challenging as 3D flying for others.

This was Paul Dürr's first scenery but it is yet very good and elaborate. It is the "Wagensteigtal" (with the "Haurihof", meaning the Hauri grange at the far side in the picture) near to his home in the Black Forest in south-western Germany. Again, you should visit [his web site](#) and see yourself. You may download this scenery directly [here](#) and a new winter version [here](#).



One of Horst Lenkeit's first sceneries, the disused lighthouse near Pilsum at the estuary of the river Ems. Wet meadows, concrete driveway, embankment, salt marshes, blue sky and winterly midday sun, a gentle breeze across the embankment. Those folks on the lighthouse base will remain quietly seated, whatever daring maneuvers you might fly.

Anything else is not possible with airplane models here. You may well take off and land on the wet meadows beneath the embankment, but the concrete driveway is too narrow. The embankment's crest is suitable for take-off, the oblique outer side for landing, not both. You may try to render possible the impossible, that's practice!

Download [here](#).

Enjoy!

Burkhard Erdlenbruch

<mailto:Burkhard@Erdlenbruch.de>

<http://time.hs-augsburg.de/~erd/Modellflug/textReflex.html>

More REFLEX models and the latest versions are on my page

<http://time.hs-augsburg.de/~erd/Modellflug/textDownloads.shtml>

parameters © 2011-2017 Burkhard Erdlenbruch

3D model © 2009 Jürgen Dreyer (DL3FY)