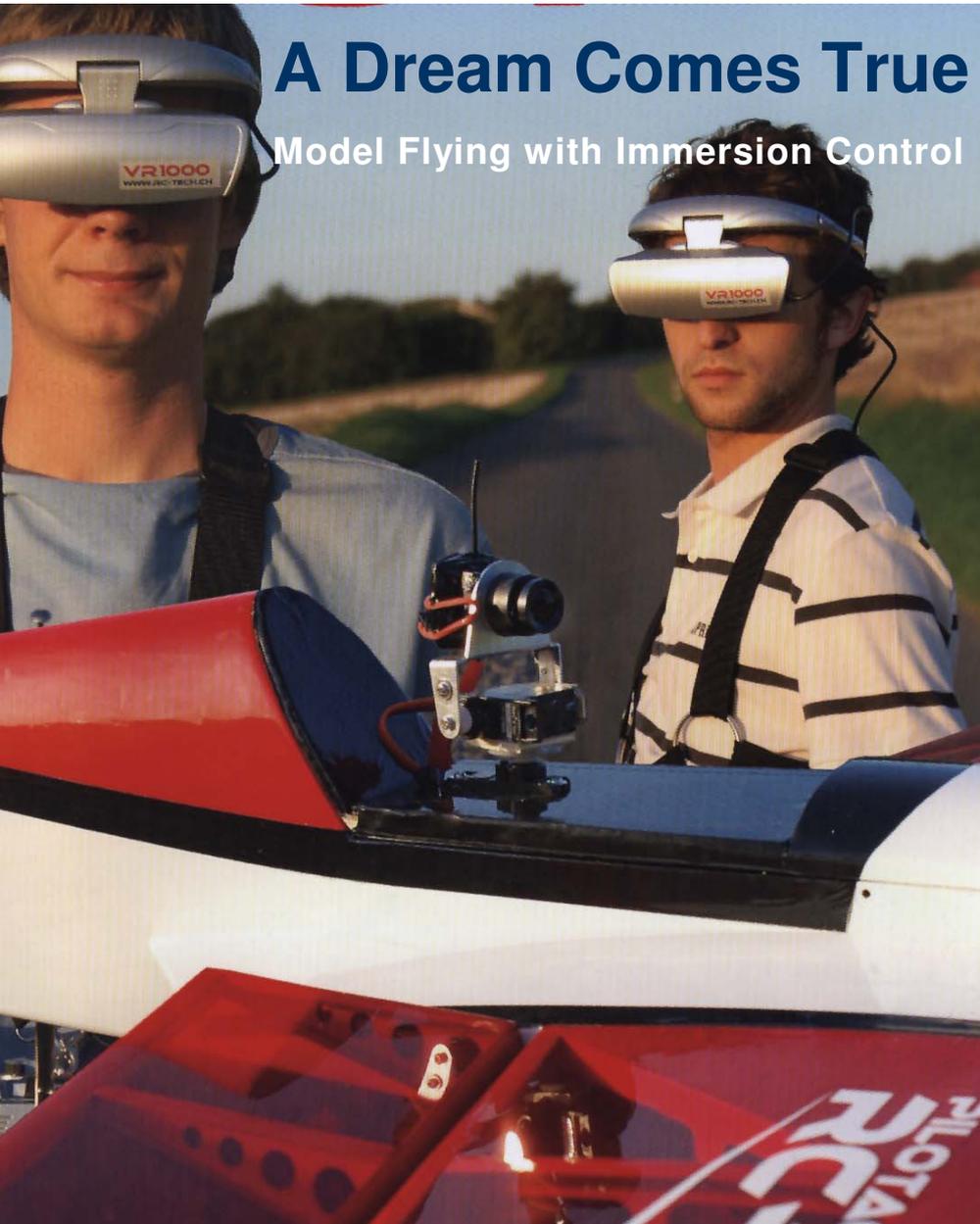


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[www.fai.org/aeromodelling/ciamflyer](http://www.fai.org/aeromodelling/ciamflyer)

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## A Dream Comes True

### Model Flying with Immersion Control

#### A Video Camera on the Model Aircraft

Even in previous years, brave individuals have attempted this experiment by installing video cameras in model aircraft that were big enough to accommodate the bulky equipment. How satisfying to be able to watch images of your flight at home and to admire the scenery! Recently our need for security has led to the availability of a large range of small surveillance cameras with wireless transmission that are suitable for placing in sensitive locations.

How lucky for us model pilots! Not only is the range of available products increasing rapidly, the imaging quality is also improving continuously and strong competition on the market results in falling prices for such systems. Wireless connections are also getting better, so that model pilots don't even have to wait for their camera-equipped aircraft to land, before they can show the results of their aerial images to friends gathered round a display screen. Whoever is busy with steering the aircraft, however, will unfortunately have to wait for the end of the flight.



Noam Perakis and André Bernet, two experienced aeromodellers, had long been dreaming of getting into their model aircraft, flying over their airfield and all its surroundings, tracking the aircraft's movements from inside the cockpit and thus achieving a sense of reality.





### Only a Small Step Has Been Missing

Thus, there is only a small step missing before we can not only look at our aircraft from the outside but, using a video system, enter the cockpit and enjoy an unobstructed view of the scenery. This may initially seem a bit futuristic, but a number of aeromodellers have already undertaken trials of this kind. The term "immersion control" has become more or less the standard term for these direct video systems. But then it's not all quite as straightforward as one may be led to believe. This is why it is crucial to have a second pilot for the first few flights, to be able to safely assess the required velocity and altitude using dual control.



### More Realism with Immersion Control

With a bit of practice it doesn't take long to find one's reference points and gradually undertake the adventure unaided. Unfortunately, display screens tend to be small and hardly useable in bright sunlight. This is why it is preferable to use video goggles. They provide a large-format image, corresponding to a large TV set viewed from a distance of about 2 m, that is always right in front of the viewer. Because all we see when

using these video goggles is the view from the aircraft, we will quickly forget that we are on the ground and can experience fascinating hours of flying.

### The Step to Maximum Reality

When the camera is installed so that it can be swivelled using the remote control, we can look around and, for example, easily see the wing tips. During flights with video goggles the sensation of "immersion" is so intense that you will instinctively want to look around and turn your head. Sadly this has absolutely no effect.



What is missing is a system that lets the camera follow the pilot's head. This is why a small sensor has recently been developed that is attached to the video goggles and connected to the model's radio control. Because this system causes the camera to follow the head of the pilot, who is sitting on the ground, a maximum sense of reality is achieved. It will make you want to not only admire the scenery that is virtually below you, you will soon also want to attempt elegant manoeuvres. If you even mount your camera where a pilot would sit, you will truly believe that you are sitting in your aircraft and steering it. Thus immersion control adds a whole new, hugely fascinating dimension to aeromodelling. Good luck!

