

# Cierva C.30 (Avro Rota Mk.I)

## Swedish autogyros SE-AFI & SE-AEA

### 3 aircraft – 5 versions in 1/87 scale

Print on 5x7" (13x18 cm) paper for a nice large picture postcard size kit. Or print two pages per sheet on ordinary A4 or Letter size paper. Only the two last pages of each model need to be printed on photo paper (one A4 or Letter size sheet). View other pages on screen.



(Above): SE-AEA above is shown at true size when built from this 1/87 scale kit. This paint scheme is not included in the kit – Roman Vasilyev ( Kampfflieger) has modeled it, and many other autogyros, in a new updated 1/48 version of his British Avro Rota. An older, 1/72 free download of the Rota has been used as a base for this kit, with Roman's kind permission.

Profile source: Wings Palette

Kampfflieger models source: Ecardmodels-com

(Wherever it says "Source:..." in the text, click on that area for the original source of photos and drawings.)

SE-AEA is modeled in three versions: 1. Blue & white trim, as it was imported by Swedish autogyro pioneer Rolf von Bahr and used by him for widely publicized ambulance flying. 2. Blue, with a large Swedish flag to mark it as a non-combatant during WWII when used for mine sweeping. 3. Silver & blue trim, such as it now hangs from the roof of the Royal Technical Museum, Stockholm, Sweden.

Two other of von Bahr's imported Cierva autogyros are modeled, SE-AFI, as seen in the large photo at left, and SE-AZA, in a non-standard silver & blue paint scheme.

(Left) SE-AFI on display at the Aviodrome, Lelystad Airport, Holland.

Photo courtesy: Fred Willemsen  
Airliners-net

**From a 1/72 original © Kampfflieger 2004  
1/87 kit & recoloring by Leif Ohlsson**

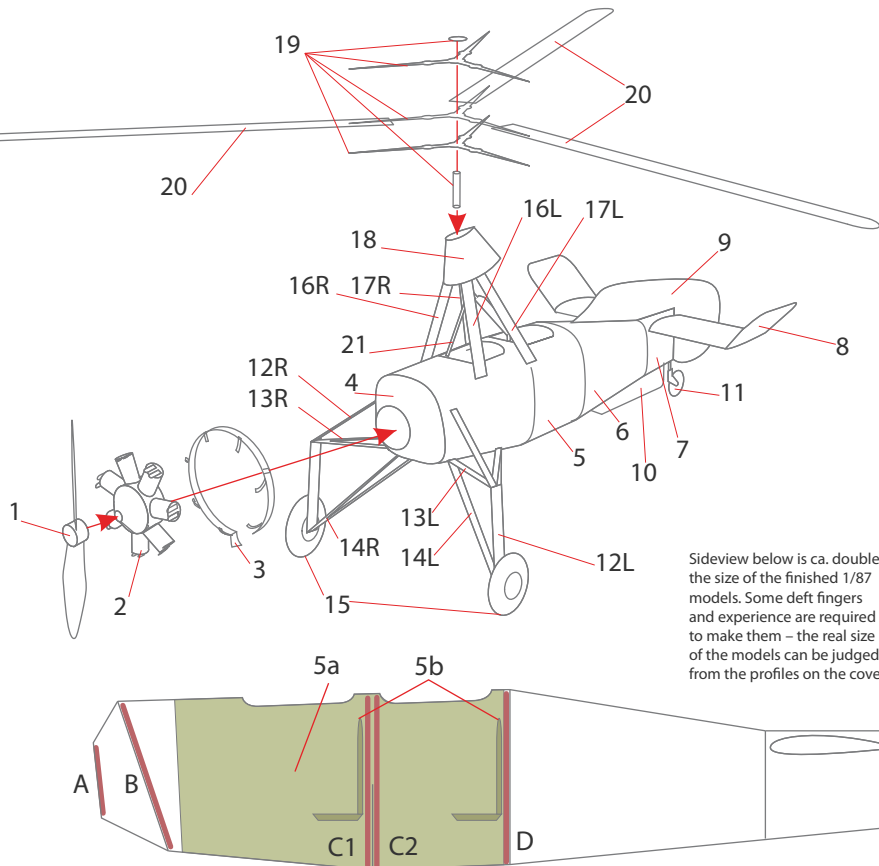


Avro built 78 Cierva C.30, fitted with an Armstrong Siddeley Genet Major IA 7-cylinder radial engine of 140 hp (100 kW). The first production C.30A was delivered in July 1934. Eventually, 26 Cierva/Avro Rota autogyros were directly exported by Avro. They went both to private owners and to foreign air forces who wished to investigate the autogyro's potential.

Source:  
Wikipedia

The subject of this model is an Avro-built C.30 imported to Sweden by Rolf von Bahr, who collected 7000 hours of autogyro flying in his log book, 2500 of them artillery spotting and mine-sweeping during WWII, when the Swedish flag was painted large on the fuselage sides to mark it as a non-combatant aircraft. He also flew winter ambulance transports in mountain regions, and charter flights for ski tourists. He operated six out of the eight Swedish autogyros at the time, until the arrival of helicopters in the late 1940s. This meant the demise for autogyros as a type until the ultralight revival decades later.

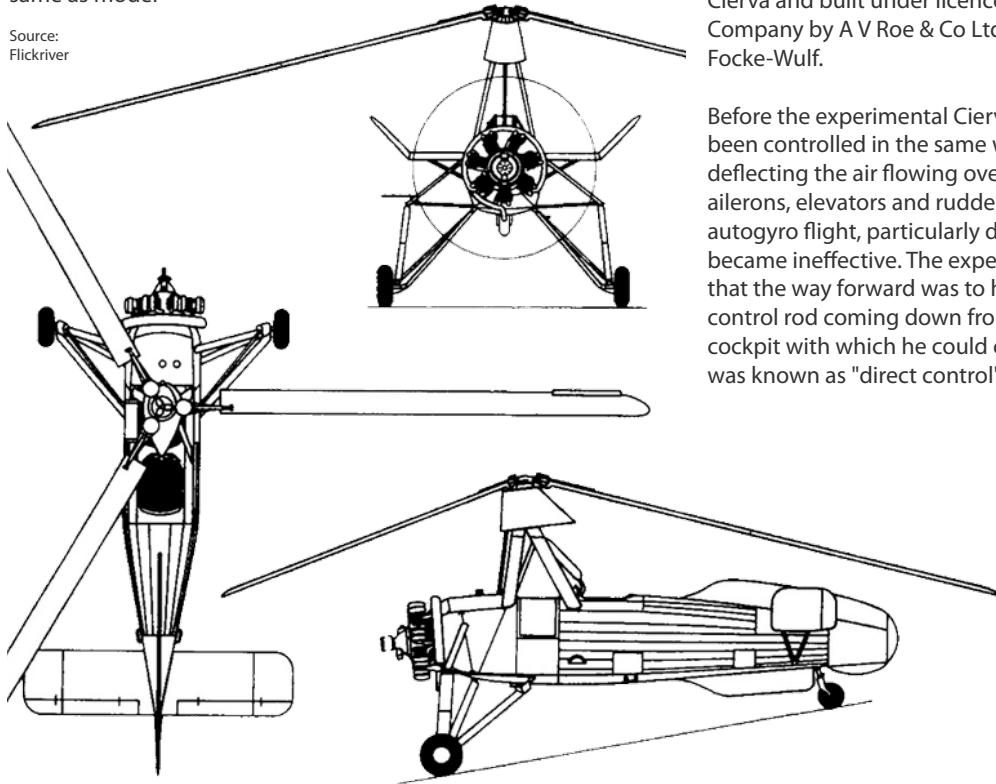
Sources: Avrosys-nu  
& Rotary Wing Forum  
& 1949 Swedish newspaper  
interview with Rolf von Bahr





3-view is 1/87 scale,  
same as model

Source:  
Flickrriver



The Cierva C.30 was an autogyro designed by Juan de la Cierva and built under licence from the Cierva Autogyro Company by A V Roe & Co Ltd (Avro), Lioré-et-Olivier and Focke-Wulf.

Before the experimental Cierva C.19 Mk V, autogyros had been controlled in the same way as fixed-wing aircraft, by deflecting the air flowing over moving surfaces such as ailerons, elevators and rudder. At the very low speeds in autogyro flight, particularly during landing, these controls became ineffective. The experimental machine showed that the way forward was to have a tilting rotor hub and a control rod coming down from the hub to the pilot's cockpit with which he could change the rotor plane. This was known as "direct control" and was fitted to the C.30.

To enable the aircraft to take off without forward ground travel, Cierva produced the "Autodynamic" rotor head, which allowed the rotor to be spun up by the engine to higher than take-off r.p.m at zero rotor incidence and then to reach operational positive pitch suddenly enough to jump some 20 ft (6 m) upwards.

Source:  
Wikipedia

The Cierva C.30A SE-AEA modeled here was flown by Rolf von Bahr. It is now on display at Tekniska Museet (Museum of Science and Technology) in Stockholm.

Rolf von Bahr got his license as a commercial pilot in the UK in 1933. He was employed at AB Autogyro, an company founded by the aviators Theodor and Henrik Dieden. In 1931 the two brothers saw Juan de la Cierva fly his C.19 design in Stockholm. They were impressed and decided to use the autogyro commercially in Sweden. The AB Autogyro had a short life and was wound up in 1935. The same year, von Bahr founded his own company, also named AB Autogyro, and continued to fly the SE-AEA. He was also appointed as Cierva's representative in Sweden.



Rolf von Bahr tested the autogyro as an artillery spotter for the Army and made reconnaissance flights for the Swedish Navy during WWII (left; note how the Swedish flag is hardly visible on the blue fuselage). Beside that he flew tourists at some fashionable winter-sports resorts (above), plus rescue, taxi and ambulance flights. The 7000 hours of autogyro flying hours collected in his log bok from the mid-30s to late -40s likely constitute a world record for autogyro flying.

Source photos:  
Nordic Rotors (left).

Swedish blog Klassiker-nu (above).

Source:  
Lars Henriksson  
Avrosys-nu

There is a short period filmclip (narrated in English) depicting Rolf von Bahr flying ambulance transports in the Swedish winter mountain resort areas.

Source: Swedish Museum of Technology, Stockholm. (YouTube: "Cierva C.30 Autogyro Ambulance")





(Left:) Rolf von Bahr with his Cierva, sometime late 30s or early 40s.

Source:  
Rotary Wing Forum

(Below:) Rolf von Bahr on the ice of a lake near winter resort Storlien in Sweden, probably late 30s. He was a well-known figure, as witnessed by the publication of this photo as a picture postcard. Note the prewar color scheme, most probably factory blue with white markings.

Source:  
Swedish blog Klassiker-nu



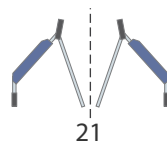
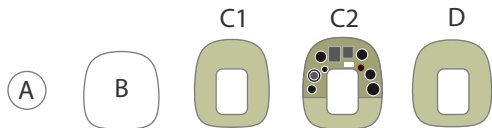
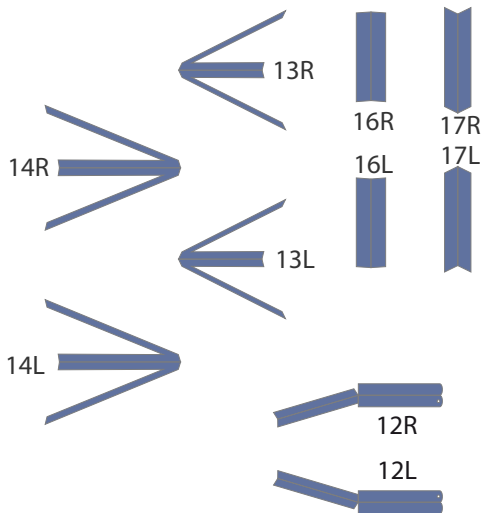
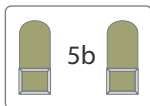
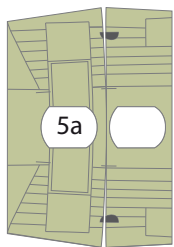
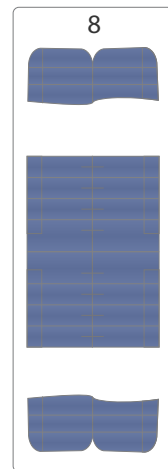
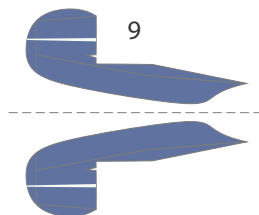
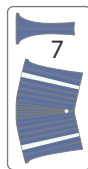
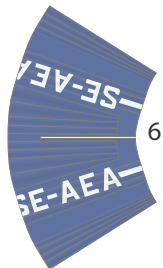
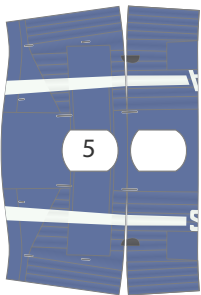
(Above:) The SE-AEA in 2010, lifted down from the ceiling of the Royal Technical Museum, Stockholm, for maintenance.

(Below:) A peak into the cockpit on the same occasion. Note the rotor control handle tied down, and the dusty compass on the floor.

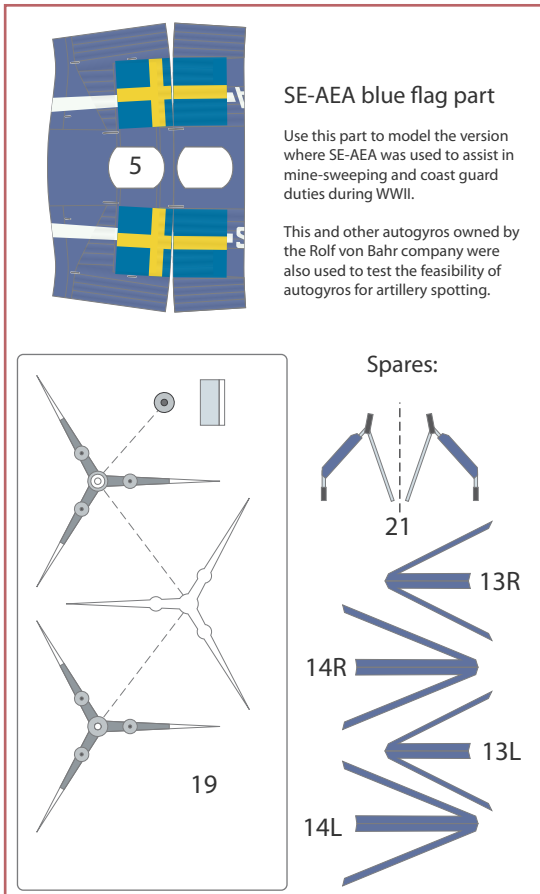
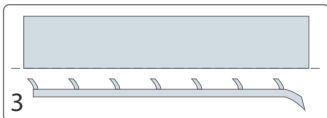
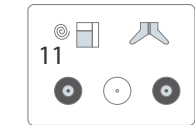
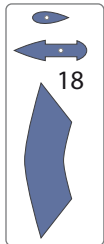
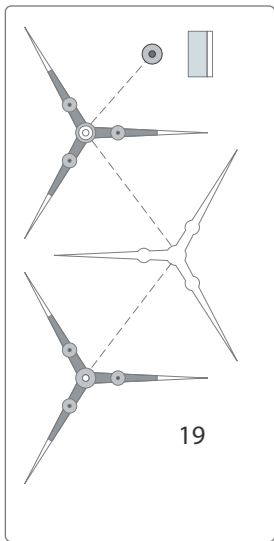
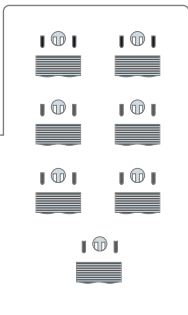
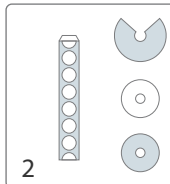
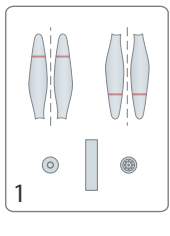
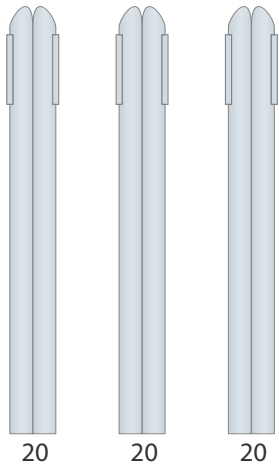
Source:  
Swedish Lae blog



SE-AEA  
blue



(Fold up and insert extra sheet  
if you wish stiffen up formers)

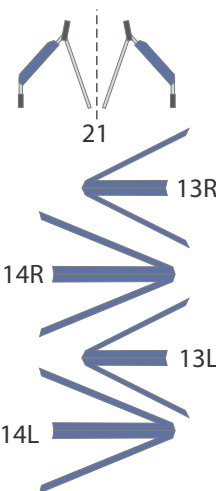


### SE-AEA blue flag part

Use this part to model the version where SE-AEA was used to assist in mine-sweeping and coast guard duties during WWII.

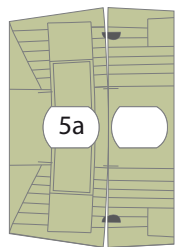
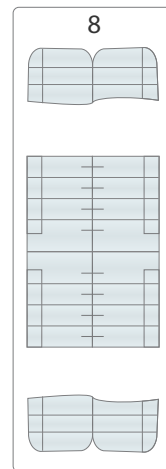
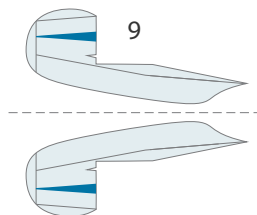
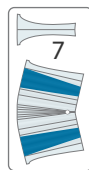
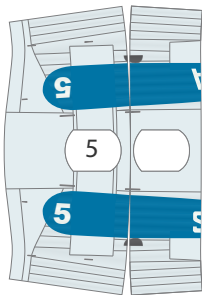
This and other autogyros owned by the Rolf von Bahr company were also used to test the feasibility of autogyros for artillery spotting.

### Spares:

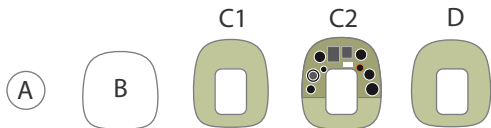
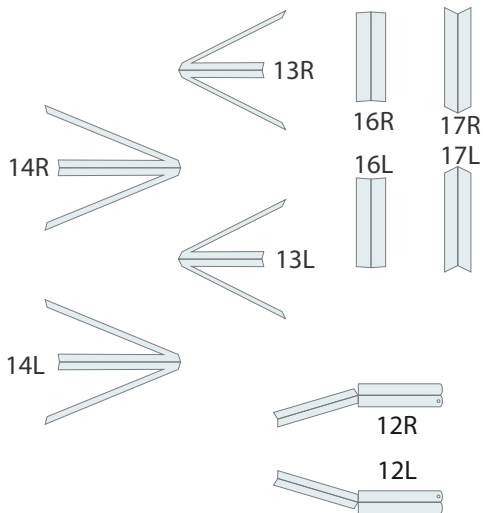
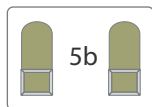




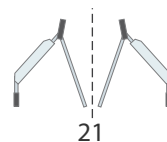
SE-AZA  
silver

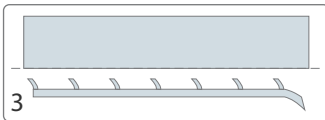
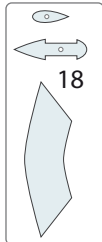
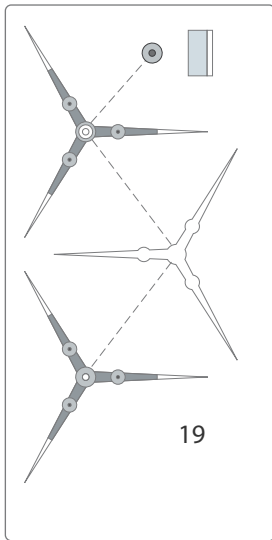
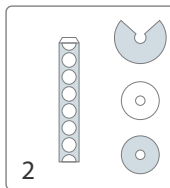
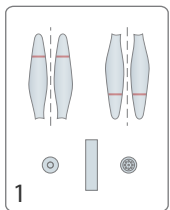
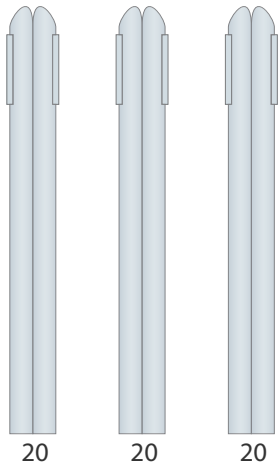


Windshields (optional)



(Fold up and insert extra sheet  
if you wish stiffen up formers)





## Rolf von Bahr and his Swedish autogyros



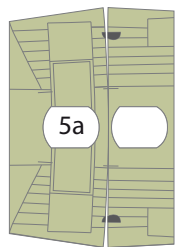
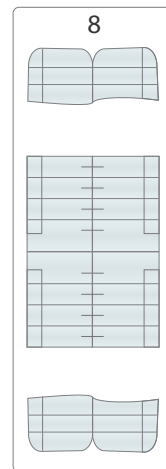
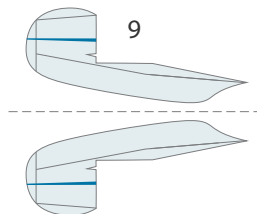
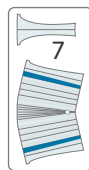
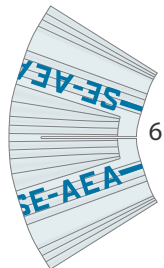
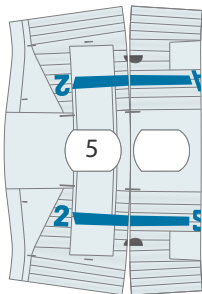
The low quality photo above is the best I've found of SE-AZA. The location may be one of the Swedish winter resorts Rolf von Bahr regularly provided autogyro services for. It is probably taken in the late 1940s, judging from the postwar silver & blue paint scheme.

Photo source:  
"Airforce Helicopters"  
(obscure Swedish article)

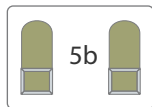
Rolf von Bahr is synonymous with Swedish autogyros in the 1930s and 40s. Three of them ended up in museums - SE-AZB at Hendon, London; SE-AFI (modeled) at Lelystad, Holland; and SE-AEA (modeled) in Stockholm. SE-AZA (modeled) was sold to Örebro in 1949, converted to an ice-yacht, and burned up in an accident.

Source: Rotorspot-nl  
& Flyghistoria-org (in Swedish)

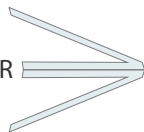
SE-AEA  
silver



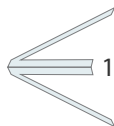
Windshields (optional)



14R



13R



16R

16L

17R

17L

16R

16L

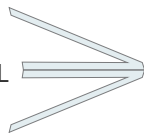
17R

17L



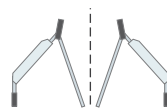
10

14L



12R

12L



21

A

B

C1

C2

D

(Fold up and insert extra sheet  
if you wish stiffen up formers)

