News from Sweden

Well situated

In 1936, the Carl Zeiss branch in Sweden was founded at the classic Stockholm address of Kungsgatan 33 (Fig. 1). Due to the support of loyal staff, the branch successfully survived the turmoil of World War II and the post-war period. After Sweden's integration in the European community, business relations between Carl Zeiss and the Scandinavian countries intensified considerably. Today, the sales subsidiary Carl Zeiss Sweden generates sales of approx. EUR 18m with a staff of 53.

Fig. 1:
The first branch of Carl Zeiss in Sweden in Stockholm, Kungsgatan 33.

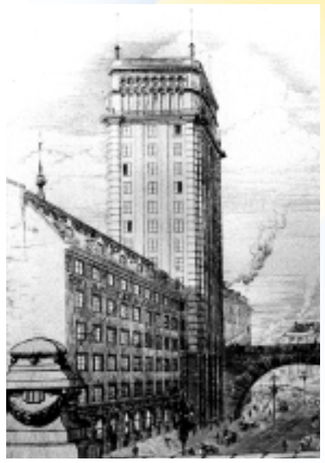

Fig. 2:
Carl Zeiss is now located in Stockholm, Tegeluddsvaegen 76.

Perfect partners

Sweden, the city of Gothenburg to be more precise, is also the location for the headquarters of the company Hasselblad whose cameras are treasured by professional and discerning amateur photographers all over the world. Most of these cameras are equipped with high-performance lenses from Carl Zeiss.

50 years ago, Carl Zeiss in Oberkochen received the first order from Hasselblad. Since that time, the flow of camera lenses supplied to Northern Europe, and from there to the whole world, has continued without interruption. Just one of the many well-known and loyal customers who put their trust in Hasselblad cameras with Zeiss optics is NASA. Today, the business with Zeiss lenses for Hasselblad cameras is showing a very pleasing trend. In January 2001, Carl Zeiss and Hasselblad concluded a new agreement on the continuation of their successful cooperation which now spans several decades.

Fig. 3:
Repair work on the Hubble telescope from the Endeavour, STS-61 space shuttle. On board were four Hasselblad 553ELS with six Zeiss lenses. Photo taken with 30 mm **F-Distagon®** fisheye lens on December 8, 1993. (Photo: NASA).

Fig. 4:
Hasselblad Millennium Edition: the Hasselblad 503 CW and Hasselblad 203 FE cameras, chrome-plated, with Millenium signet and gold-plated type description, featuring a Zeiss 80 mm **Planar®** CFE f/2.8 lens.
(Photo: J. Karlsson).

Sharp-sighted fighter jets

The state-of-the-art Swedish JAS-39 Gripen fighter jets are to be equipped with two Litening configurations for export projects. These configurations are complex opto-electronic systems for the safe and reliable piloting of airplanes by night and in poor visibility, and for the point-precise engagement of military targets. Zeiss Optronik GmbH, a company of the Carl Zeiss Group, has been chosen as the preferred supplier for this project by British Aerospace/ SAAB. This decision was certainly influenced by the fact that similar laser target designator systems had already been supplied for the Tornado jets of the German Airforce.

Fig. 5:
The Swedish JAS-39 Gripen fighter jet which is being equipped with optical target designator systems from Carl Zeiss.

An Observatory Celebrates Its 40th Anniversary

Artie P. Hatzes

In the millennium year 2000, the Thuringian State Observatory celebrated its 40th anniversary. From the very beginning, Carl Zeiss in Jena was the observatory's most important partner for its technical equipment. The proximity to Carl Zeiss was one of the main arguments in favor of building the observatory in Tautenburg, about 15 km away from Jena.

The planning activities for the telescope date back to the mid-50s. Since it was not clear at that time how astronomy would develop in the 10 years to come, the scientists considered possibilities of implementing as many observation functions as possible in a single telescope. The solution was found by the theoretical optics specialists of Carl Zeiss: if the mirror surface is ground to a spherical shape, this permits conversion into three different telescope systems. Fitted with the appropriate secondary mirrors and corrective lenses, the telescope can be flexibly used as a Schmidt camera, a Cassegrain or Coudé system.

While the Schmidt camera permits large areas of the night sky to be photographed, the Cassegrain system can be used to observe very distant objects, and the Coudé telescope allows the observation of very bright stars. Incidentally, the 2 m telescope in Tautenburg was the first telescope of this size to be designed and manufactured by Carl Zeiss Jena. To this day, the Schmidt camera is still the largest instrument of its type worldwide.

Construction of the observatory began in late 1957. In October 1960, the Tautenburg observatory was inaugurated in a celebration ceremony and handed over to the German Academy of Sciences. It was named after *Karl Schwarzschild*, a distinguished German astronomer. In the subsequent years, Carl Zeiss supplied a large number of accessory instruments for the telescope, including a Cassegrain and Coudé spectrograph, the Universal Astronomical Grating Spectrograph (UAGS) and a prismatic Schmidt plate. In 1985, Carl Zeiss re-equipped the complete telescope with new mirrors made of ceramic glass. All these instruments in Tautenburg are used to explore and increase our understanding of the birth of stars, their magnetic activities, galaxies and many other important astronomical topics.

In January 1992, the institution was re-founded under the name Thuringian State Observatory Tautenburg "Karl Schwarzschild Observatory".

The state of Thuringia has made substantial investments in the institute. For example, Carl Zeiss installed a new coordinate display and refurbished the complete drive system of the 2 m telescope.

Lookingback over the last 40 years, it can be said that the instruments have always operated to the observers' satisfaction and that there have been no major technical failures. This impressively testifies to the meticulous work performed by the designers and staff at Carl Zeiss. The head designer was *Alfred Jensch* after whom the telescope was named on his 80th birthday.

The telescope will remain the centerpiece of the institute and will continue to make a valuable contribution to finding answers to the mysteries of astronomy. It is ideally suited for the search for extrasolar planets, a main focus of interest in astrophysics today.

Prof. Artie P. Hatzes is the Director of the Thuringian State Observatory Tautenburg.

Fig. 1:
2 m telescope of the Thuringian State Observatory Tautenburg named after head designer *Alfred Jensch*.
(Photos: Kasper).