

Welcome Back, MALLY!

By late 1986, more than 3,500 minor planets, with diameters from a few hundred metres to several hundred kilometres, have been registered and given a number. Their orbits have been determined with great precision, so that their positions in the sky are well known at all times. Most of them have also received a name by the astronomers who discovered them.

Unfortunately, a few of these planets have "disappeared" in the meantime. Minor planet (1179) MALLY is one of these. It was discovered on March 19, 1931 by Karl Reinmuth, Staff Astronomer at the Landessternwarte Heidelberg. He first saw the image of MALLY on a photographic plate, exposed at the 72 cm reflecting telescope and showing a sky field in the constellation Virgo. He measured MALLY's positions on this and some other plates which were obtained until May 13, 1931. From these measurements, it became possible to compute MALLY's orbit in the solar system; it then received a number and Reinmuth gave it its current name.

By chance, nobody observed MALLY during the following years and when an attempt was finally made in 1936, MALLY could no longer be found. Apparently, the orbit which was computed in 1931 was not accurate enough and the International Astronomical Union officially had to declare MALLY as "lost".

In order to solve this long-standing problem and to find MALLY again, Drs. Lutz Schmadel (Astronomisches Rechen-Institut, Heidelberg, FRG) and Richard M. West (ESO) recently remeasured Reinmuth's photographic plates with the ESO S-2000 measuring machine in Garching, achieving a higher accuracy than what was possible in 1931. A new, more accurate orbit was computed but due to the unavoidable uncertainty in extrapolating forward in time, MALLY could still be anywhere within a large sky area by 1986. A substantial number of photographic plates that had been obtained with various telescopes during recent years were searched, but no images of minor planets were found which could be identified with MALLY. The catalogue of all registered observations of minor planets (more than 400,000) was checked but none belonged to MALLY. Finally, it was decided to obtain new photographic plates of the sky region in which MALLY was expected to be seen in early 1986. These plates were obtained by Hans-Emil Schuster, ESO Staff Astronomer, with the ESO Schmidt telescope in March 1986. Almost 100 im-



The trail of (1179) MALLY, as seen on a 30-min. blue ESO Schmidt plate obtained on March 12, 1986.

ages of minor planets were identified on each of these plates.

Extensive computations showed that one of these images might be MALLY. A new orbit was computed, based on the positions from 1931 and the assumed one from 1986. This new orbit indicated that images of MALLY should be visible on three other ESO Schmidt photographs, obtained for another astronomical research programme in December 1979. And indeed, such images were found at the expected places. Finally, Schmadel and West also found MALLY images on two plates taken with the Schmidt telescope on Mount Palomar,

California, USA, in 1952 and on one plate obtained with the SERC Schmidt telescope at Siding Spring, Australia, in 1983. All this evidence definitely proves that MALLY has been found again, after having been missing for no less than 55 years.

With the recovery of MALLY, only five minor planets are still "lost". They are "(473) NOLLI" (last seen in the year 1901), "719 ALBERT" (1911), "(724) HAPAG" (1911), "(878) MILDRED" (1916) and "(1026) INGRID" (1923). Those cases will be even harder to solve.

STAFF MOVEMENTS

Arrivals

Europe:

DIERICKX, Philippe (B), Engineer/Physicist
GROENEN, Eddy (B), Assistant Head of Administration
LIVELY, Susan (GB), Technical Secretary
PIERRE, Marguerite (F), Fellow
RAVENSBERGEN, Marius (NL), Electronics Engineer

Chile:

HÖÖG, Torbjörn (S), Electro-Mechanical Engineer
JOHANSSON, Lars (S), Associate (Telescope Scientist) SEST

WHYBORN, Nicholas (GB), Associate (Microwave Engineer) SEST

Departures

Europe:

BINETTE, Luc (CDN), Fellow
BRINKS, Elias (NL), Fellow
GATHIER, Roelof (NL), Fellow
KELLY, Nessian (IRL), Administrative Clerk
LOPRIORE, Sergio (I), Mechanical Engineer
MISCHUNG, Norbert (D), Senior Mechanical Engineer

Chile:

MERTL, Vaclav (CH), Electronics Engineer