

FOREWORD

Present 19th volume of the “Odessa Astronomical publications” contains the catalogue of the right ascensions for 4982 stars with declination from -2 deg. to $+1$ deg. This catalogue is based on the visual observations made with the help of Repsold meridional circle of Odessa State astronomical observatory (installed in 1862). The observations were carried out by the well-known astrometrist B.V. Novopashenny in 1930-1935. The declinations of program stars were published by B.V. Novopashenny and G.G. Ermolaev in 1970 in the annual of the astrometric catalogues. At the same time the publication of the right ascensions was delayed by some reasons. Only now we can present these data in their final form. This ends the long and interesting story of the catalogue appearance. The story itself is the following.

In 1863 in Heidelberg (Germany) the German astronomical society was founded (Astronomische Gesellschaft – AG). That society played a part as an international one right up to International astronomical society (IAU) appearance. The first international co-operative project of AG was the creation of photographic catalogues AGK (Astronomische Gesellschaft Katalog) that took into account an advantage of the photographic observations and urgent necessity to have the exact positions of the reference stars. This enterprise posed a global problem of obtaining the exact positions and proper motions for all the stars from the “Bonn survey” (BD, composed by Argelander in 1863 using the stars with declination up to -2 deg, and then continued by Schenfeld with the stars up to -23 deg) that were accessible with meridional circle visual observations.

All the stars of 9-10 mag were distributed between the observatories that were the members of that campaign and those stars were observed by each observatory in the narrow zones on the right ascension (this is why AGK catalogues were called as zone catalogues). From the Russia the two observatories took part in that project. They are Kazan and Nikolaev observatories. The director of Nikolaev observatory at that time I.E. Kortazzi observed the position of the stars in equatorial zone of the declinations from -2 deg to $+2$ deg. In 1900 I.E. Kortazzi published in Leipzig the results of his observations that were entitled “Catalogue de 5954 étoiles entre -2 deg 10 min et $+1$ deg 10 min de Declinaison 1855 pour l’équinoxe de 1875”. This catalogue went down in history as “Nikolaev AG zone”. Often this zone is called Kortazzi zone.

An idea to observe the stars from this zone again belongs to A. Ya. Orlov, who wanted to estimate the proper motions of the stars by comparison the Kortazzi observations and the new observations that should be separated by about 50 years. He, as the director of Odessa observatory, commissioned in 1929 with this task already known at that time geodesists and astrometrist of the Pulkovo school B.V. Novopashenny, who was invited to Odessa observatory. That observations were carried out, but after the change in 1935 of the observatory head the program was stopped and all the observing logs were set aside.

The new processing of those logs was initiated again in 60-s of the XX century. First, during the life of Novopashenny, the declinations of the stars were reduced, then, after his death in 1976, the processing of the logs was started. Without the observers this work appeared to be very difficult. In the different periods the different observatory’s astronomers have been engaged with this work. Among them there are M. Yu. Volyanskaya, A.P. Chelombit’ko, V.V. Zhukov and the authors of this present catalogue. During this work, the new computer methods and specially elaborated software have been used. As a result, the necessary checks have been made, all the errors in catalogue were corrected, and now this catalogue in its final form contains only the reliably determined data on the right ascensions of the star of the considered zone.

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