

The determination of gravimetric stations, carried out simultaneously with astronomic position determinations, made it possible to avoid inaccuracies in determinations of astronomic stations caused by deflections of the plumb line.

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## POSITIONS IN

## REFERENCES

- Pavlov, A.A., Daytime star observations in Antarctica. Inform. byul. Sov. Antarkt. Eksp., No. 25, 1961.

## SELF OPERATION

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**EDITOR'S NOTE.** This case of an operation for acute appendicitis performed by a physician on himself in Antarctica will be familiar to Soviet readers from the newspaper articles and radio broadcasts on the subject. Dr. Rogozov describes this operation in the present article from his personal vantage point of both physician and patient.

In the morning of April 29, 1961 I did not feel well. The symptoms noted were weakness, general malaise and, later, nausea. Within a few hours, pain arose in the upper portion of the abdomen, which soon shifted to the right lower quadrant. Body temperature rose to 37.4°C. It was clearly a case of appendicitis.

Every possible measure was taken for conservative resolution of the inflammation, i.e., without surgical intervention, but to no avail; the inflammatory process continued to progress. On April 30, signs of possible perforation of the appendix and localized peritonitis were present: body temperature increased markedly, vomiting became more frequent and the general condition worse.

There was no possibility of obtaining medical help from Mirny in time, as Mirny is approximately 1,500 km from Novolazarevskaya Station. Though there are foreign stations nearer, none of them had an airplane, and a blizzard ruled out a flight in any case. By evening of April 30, the patient's condition was worse, and there were signs of the development of pyoappendicitis. An immediate operation was necessary to save the patient's life. The only solution was to operate on myself.

Preparations for the operation were begun. My co-workers at the station got the room ready while I evolved a plan of operation. Since the necessary equipment and surgical instruments were stored outside at negative temperature, their resterilization was considerably facilitated. Aerologists F.F. Kabot and R.N. Pyzhov were in charge of sterilization. A sterile solution of novocaine for local anesthesia had already been prepared. Meteorologist A.N. Artem'yev and driver Z.M. Teplinskiy were asked to assist in the operation. It was decided that A.N. Artem'yev would hold the retractors, while Z.M. Teplinskiy would use a mirror for visualization of areas not directly visible in the operative field. The "assistants" were briefly instructed in proper behavior during the operation. In the event that the patient lost consciousness, they were instructed to inject the drugs in the syringes I had prepared and to administer artificial respiration.

The position of the patient at operation was designed to make it possible for him to perform the operation with minimal use of the mirror. A semi-reclining position with the body half-turned to the left was selected, so that the weight rested on the left hip, and the lower half of the body was elevated at an angle of 30°.

After the physician and assistant Artem'yev scrubbed, the latter put on a sterile gown and gloves. The table with the operating equipment and instruments was moved next to the patient's bed. Then the operative field (abdomen) was prepared, and I took the position described above. At 22 h, Moscow time, April 30, the abdominal wall was anesthetized with 0.5% Novocain solution; at 22 h 15 m, a typical 10-12 cm incision was made. The mirror was used while the peritoneum was being exposed, when it was sutured, and for detection of the vermiform appendix; i.e., when particular precision and accuracy were necessary, since the bottom of the wound was very difficult to see. Otherwise, the body position chosen was very satisfactory. It was frequently necessary to raise my head in order to see better, and sometimes I had to work entirely by feel. General weakness became severe after 30-40 min, and vertigo developed, so that short pauses for rest were necessary. After resection of the severely diseased vermiform appendix (a 2 x 2 cm perforation was found at its base), antibiotics were introduced into the peritoneal cavity, and the wound was tightly sutured. The operation was completed at midnight, April 30.

Postoperative condition was moderately poor. After 4 days the excretory function was normal and signs of localized peritonitis had disappeared. The temperature was normal after 5 days, and after 7 days the stitches were removed. The wound was completely healed.

The assistants conducted themselves well during the operation and showed stamina and presence of mind. It was particularly difficult for A.N. Artem'yev, as he was forced to kneel throughout the operation. Excellent postoperative care was organized for me. Within 2 weeks I was able to carry out my normal duties, and I could even do heavy work after a month.

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## CHRONICLES

### NEW BOOK ABOUT SOVIET ANTARCTIC INVESTIGATORS

Brockhaus (German Democratic Republic) has published a book by the German meteorologist, Dr. Günter Skeib, entitled "Hurricanes over the Antarctic." This is a rather large book (280 pages) with 50 interesting photographs and a map of the Antarctic as it is now. It is of special interest to the Soviet reader, because it was written by a scientist who was a member of the Fifth Soviet Antarctic Expedition and has spent more than a year (from 1959 to 1960) on the ice continent with Soviet investigators.

In his introduction, Dr. Skeib writes: "Seventeen months of expeditionary life are behind us and now we are on the way home. For 4 months we sailed distant and foreign seas and for 13 months we were the prisoners of the Antarctic. Now it all seems very far away: the fierce winter hurricanes, the unfriendly wastes of continental ice, the astonishing accumulations of tabular icebergs, the encounters with whales, seals, and penguins . . . . Not one of these lines has been written at a desk at home. This book was started on board the transport-passenger ship Kooperatsiya, continued in a polar hut in deep snow at the scientific antarctic station Mirny and in a tent in a raging hurricane on Drygalski Island, and finished on the icebreaker Ob' . . . ."

The author dedicates the book to his working companions who died in Antarctica.

Skeib gives a very lively and at the same time very accurate description of the preparations for the expedition, the voyage on the Kooperatsiya from the shores of Europe to Antarctica, of the first steps on the ice continent and first expeditionary traverses, and of the organization of an undersnow laboratory and of scientific observations. The most important passages in the book are devoted to descriptions of the work conducted by three investigators — Soviet aerologist Aleksandr Smirnov, radio operator Sergey Karpushin and the author — who were flown to the ice dome of Drygalski Island where they spent the winter in a small tent. In spite of the cold and continuous snowstorms,