

masses of air coming from the north-west are forced to rise up the northern slopes of the T'ien-shan, the rainfall and therefore also the vegetation on these slopes are heavy and rich. A strong contrast hereto is presented by the south side of the system, as well as by the southern slopes of the more northerly ranges. In a belt about 30—40 km in breadth along the northern range the cloudiness is much greater than it is farther northwards, over the plains of Dzungaria. On the south side the cloudiness is much less considerable. The well-known and very violent storms on the south side are brought about by the great contrasts in temperature between the north and the south sides, which in their turn are caused by unchecked summer-insolation resulting from slight cloudiness and by the absence of cold air streaming to the south side. These storms, which have a Föhn character, arise when as a result of heavy cloudiness and snow-covering on the north side cold air flows over the mountains. The storms on the south side are feared for their violence. On certain stretches they hold up all traffic, even with carts, for some days.

At the Charkhliq station it was possible to collect valuable data concerning the origin and structure of the dust storms. The observation was also made that Eastern Turkistan is by no means so completely cut off from the meteorological disturbances outside its protecting wall of mountains, but that also here it was possible for cold air from the north-east, probably from the Dzungarian port of entry, to penetrate, bringing with it rain and low-hovering clouds. A series of pilot-balloons that were sent up here gave valuable data concerning the stratification of the winds, according to direction and strength. Of the balloons so far sent up by HAUDE, that which reached the greatest altitude, namely 21,200 m above the surface of the earth, penetrated to the east-drift that is found above the general west-stream. From these balloon-data it will certainly also be possible to obtain valuable information concerning the altitude of the stratosphere over the Central Asiatic continent. Here, however, the work with the pilot-balloons was seriously interfered with by the summer heat ( $42^{\circ}\text{C.}$ ), which destroyed a large number of the rubber balloons, and by the fact that the air was for the most part clouded with floating dust. Afterwards, the Governor-General forbade the sending up of pilot-balloons.

The complete absence of water in the northernmost parts of the Astin-tagh made it difficult to establish a mountain-station at the desired altitude. We had to content ourselves with an altitude of 1,600 m; and for daily needs (in the middle of summer 4 to 5 liters per man) water had to be carried to this place from 200 m lower down.

At all the stations in Sinkiang HAUDE found the transition from summer to winter very sharp.

Our endeavours to obtain a permit from the Governor-General of Sinkiang for HAUDE to travel over Hami to Kansu in the spring of 1929, to study the course of the monsoons over north-east Tibet during the summer months from the moun-