

between solar flares and terrestrial magnetic storms had obviously appeared. Thanks for the use by several observatories around the World of the spectroheliograph of Mt Wilson Observatory, the observed flares were more and more numerous and a new cooperation started to work in 1934 to search the eruptive phenomena. Those collected data in Meudon were published in the "Bulletin" which became the "Quarterly Bulletin of Solar Activity" in 1938. The cinematographic patrol of limb prominences has begun with spectroheliograph (McMath Hulbert Observatory) and coronagraph (Pic-du-Midi Observatory).

The period 1945-1970. At Zürich GA, in 1948, the commissions had started again the international cooperation to watch the solar activity with, in addition, some new observations : solar corona intensity and radio radiation. The studies of the magnetic fields in the active regions set up. The EC wanted to develop the prediction of the terrestrial phenomena coming from the Sun. For that, ursigrams were diffused giving informations on solar activity and terrestrial events. The organization of the International Geophysical Year (1956-58) has stimulated the cooperation within the frame work of the Inter-Unions. Comprehensive maps of the Sun were published from day to day and "Solar Geophysical Data", an important monthly compilation of data, was issued. After the IGY, the International Quiet Sun Year held up the same organization. We may not forget the decisive supply of the spatial astronomy (rockets and satellites) which began with the IGY and will brought, during the last thirty years, informations about solar radiations, UV, X and Gamma...

Conclusion. The compilation of the data collected on the World scale which began with the twentieth century has been and is still one of the most productive instrument to progress in the solar activity knowledge. At the present time, the World Data Centers (WDC) owing to global informatic treatments are the only one able to produce, almost in real time, the compilations as homogeneous and complete as possible, but without human critical analysis. We have also to deplore present and future closing of some solar ground based observatories, making impossible the survey of the Sun twenty-four hours a day.

Discussion

J.-C. Pecker : In the margin of the "Official" coordination of solar physics, the historians of solar physics should look of course very carefully at the (fascinating !) human relations between solar astronomers : Hale and (or vs.) Deslandres ; and later Lyot and Roberts (as reported in the book "Remembering Walter Roberts", 1993, published by NCAR).

THE 1958 IAU GENERAL ASSEMBLY IN MOSCOW

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In 1955 the 9th IAU General Assembly (GA) took place at Dublin. The spirit of friendship, good will and mutual understanding resigned on that astronomical forum. Prof. Boris V. Kukarkin of Moscow University, on behalf of the Soviet Academy of Sciences invited the next 10th IAU GA to hold at Moscow in 1958 and prolonged applauses were a reply for him. The soviet invitation was strongly supported by J.J. Nassau who was a leader of the US National Astronomical Committee. Old reports on Dublin's meeting show some

kind of an international idyll. It is a matter of fact that all people from international astronomical community consider the Moscow session of the IAU was to be very efficient and successful. The process of Khrushchev's Thaw was under progress after his famous secret anti-Stalinist speech on the 20th Soviet Communist Party Congress in February, 1956. The IAU Assembly in Moscow began 10 months after the first Soviet Sputnik was successfully launched. Very soon the first Soviet Sputnik was followed by the first American one and due to a dawn of the Space astronomers who were waiting the large scientific rush in their field.

Meanwhile Moscow IAU success and Dublin's scientific idyll has deep social roots ; it was a direct result of unprecedented previous events which began not from Khrushchev's Thaw but from a dawn of the Cold War. In 1948 7th IAU GA in Zürich, recommended that the next 8th GA will be hosted in Leningrad. It would be a commemorative event on the world-wide known Pulkovo Observatory reopening after reconstruction because during the Second World War it was destroyed totally. Pulkovo had to be rebuilt in old appearance on the old foundation and equipped with very modern devices.

The Soviet top-rank political entrepreneurs under Stalin's aegis did wanted to see any great scientific meeting in the USSR and they proposed charming conditions for the IAU meeting. All expenditures on the territory of the USSR for all foreign participants would be paid by the Soviet Academy of Sciences. In December 14, 1950, the 8 months before the Assembly, Bengt Stromgren, who was the General Secretary, informed Alexander A. Mikhailov, Pulkovo Director and the Soviet national astronomical leader, that 251 astronomers intended to participate at the Leningrad meeting. But only one month later, on January 19, 1951, Mikhailov was informed on the IAU President Lindblad decision to cancel this event due to unsuitable international conditions. In the USSR it was the most dark final period of Stalin's regime. For Soviet scientific officials and Communist Party clerks, of course, it was the greatest shocking. In the Soviet Astronomical Journal (volume 28, issue 3, page 202) it was anonymously declared that Prof. Lindblad and Prof. Stromgren are under influence of aggressive circles of the USA and other capitalistic countries ; they were dreaming to collapse the cooperation between members of international scientific community.

There were different reactions on the decision. For example, 15-well-known astronomers from France and the Netherlands protested seriously against the cancelling. But the position of the IAU Executive Committee was hard in spite of impossibility to change the location of the IAU meeting place in Rome not after 3 years as usual but after 4 years in 1952.

So Pulkovo misfortune was repeated twice. In August, 1914 a great astronomical international meeting of the Astronomische Gesellschaft had to hold in Saint-Petersburg but the event was broken by a beginning of the First World War. And once more the international astronomical congress at Saint-Petersburg for the Pulkovo celebration was destroyed by the Cold War. It was a real social upset background to forthcoming Dublin's idyll after Stalin's death.

Discussion

J.-C. Pecker: I was among those who signed the protest letter against delaying the meeting in 1951 in Leningrad. It is ironical that *Minnaert*, who was a leader in this protest action, was put

in prison in 1958, because he was making a pastel drawing of Moskva river, with bridges, - objects of military importance !-. He stayed in prison no more than a day, happily!

Anonymous : The 1958 GA re-established the close cooperation between the Pulkovo Observatory and the U.S. Naval Observatory and resulted in the international cooperation on the Southern Reference Stars (SRS) transit circle programme; with Pulkovo Observatory establishing a station in Chile and the U.S. Naval Observatory in Argentina.

D. DeVorkin : What were the reasons for the cancellation of the 1951 IAU at Leningrad ?

A. Gurshtein : Many reasons - Korean war, cosmopolitan movement, I have documents on this.

Anonymous : When was the official reopening of Pulkovo Observatory, to which many foreign astronomers came ? How did this relate to the planned 1951 IAU General Assembly in Leningrad?

A. Gurshtein : At first it was planned that the opening would be in 1951 but really it took place in 1954. It was after Stalin's death and many prominent foreign astronomers arrived. It was a good prologue for the Moscow GA.

F.K. Edmondson asked for a show of hands of those who attended the 1958 Moscow GA.

(Quite a number of people)

AMERICAN FOREIGN POLICY, CHINA AND THE IAU : LEO GOLDBERG'S MEMOIRS

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Shortly before his death, Leo Goldberg wrote out an extensive memoir based on Documents and his own memory, of the difficult question that faced the IAU in 1958-61 concerning the membership of China in the IAU.

The IAU faced a difficult period during the Cold War when the Leningrad meeting was abruptly canceled and moved instead to Dublin. Struve felt that two successive meetings, in the USSR and the USA, were essential, but the problem was guaranteeing that all members could attend, and this was rendered very problematic for the Americans whose government was determined to keep Chinese communists from entering the country. Goldberg describes his negotiations with the State Department in Washington over this issue. Problems arose because of contrary factions within the State Department, so that conflicting reports reached the IAU officers about whether the invitation for the Berkeley meeting would actually go ahead. The Far Eastern Department, which strongly supported Chiang Kai-shek, was determined to get a representation from Taiwan admitted to the IAU, because they knew this would automatically cause the "Red China" membership to be withdrawn. They spread rumors that the Berkeley invitation would be canceled if Taiwan were not admitted to the IAU at the Moscow General Assembly in 1958. (Goldberg gives rich details of the personalities involved, and explains how at one point he offered his resignation as chairman of the US National Committee). Action was postponed, which averted the threat of the USSR leaving the Union, but in fact Taiwan was admitted the following year, and the People's Republic of China then withdrew. While Goldberg deplored this consequence, he believed that the IAU by its own statutes had no alternative but to accept Taiwan's application.

Discussion

F.K. Edmondson : I was a member of the US National Committee, and this paper brought back vivid memories. I was at the Madison meeting, and will not repeat in this room the words that we used to describe Wallace Brode.