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# Large-scale structures of solar wind during 1976-2000: occurrence rate and geoeffectiveness.

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On the basis of the OMNI database of interplanetary measurements we identified solar wind (SW) types for all time intervals during 1976–2000. Our classification includes quasi-steady types: (1) heliospheric current sheet (HCS), (2) slow and (3) fast SW streams, and disturbed types: (4) corotating interaction regions (CIR), (5) sheath and (6) magnetic cloud (MC) and (7) ejecta as well as (8) direct and (9) reverse interplanetary shocks (see catalogue on site ftp://ftp.iki.rssi.ru/pub/omni/). We discuss several preliminary results obtained with our catalogue (see more details in http://www.iki.rssi.ru./people/yyermol_inf.html). HCS was observed during ∼6% of total time of observations, CIR ∼10%, Ejecta ∼20%, MC ∼2%, Sheath before Ejecta ∼8%, Sheath before MC ∼0.8%, Fast SW streams ∼21% and Slow ones ∼31%. Geoeffectiveness for different types of SW structures was 0.63 for MC with Sheath (0.15 for Sheath before MC and 0.54 for MC), 0.21 for Ejecta Sheath (0.15 for Sheath before Ejecta and 0.08 for Ejecta), and 0.20 for CIR. Solar cycle variations of these parameters are discussed. The work was supported by the RFBR, project nos. 04-02-13161 and 07-02-00042.