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ACCUMULATION-ABLATION PATTERN OVER ICE SHELF, PRINCESS ASTRID COAST, CENTRAL DRONNING MAUD LAND, E. ANTARCTICA

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Study of snow accumulation/ablation over ice shelf was initiated in the year 1982-83 austral summer by fixing a network of wooden stakes in an area of 100m by 100m near Dakshin Gangotri Station (70° 05' 37" S Latiude; 12° 00' 00" E longitude). Subsequently in last two decades, observations were made regularly, augmented by re-fixing of new stakes at the same or adjoining location. During austral summer (November-January) either ablation is recorded or there is very reduced accumulation as compared to the rest of the year. The polar winter coincides with the maximum overall accumulation. The net average accumulation during one year period is recorded up to more than 50 cm. The study indicates that the growth patterns have a strong temporal bias, encompassing different segment of the year. Surface drift is the major source of both accumulation and ablation.