Concerning Satz 2.3.a. (a necessary condition for infinite horizon), the reader might benefit from looking up the reference (Michel) for this result. The condition in Satz 2.3.a. related to the interiority of 0 needs a slight strenghtening.

Formally, the multipliers in the problems with time path restrictions are not quite as well-behaved as stated in the theorems in the book, but that should hardly make any problems in applications. Perhaps it is worth while to mention that one may need to allow jumps in the costate variable at the initial time point in order for necessary conditions like Satz 6.2 (for pure state restrictions) to be correct. Otherwise, certain constraint qualifications involving the pure state restrictions, like (6.17), or no active pure constraints at the initial time point are needed.

Similarly, (6.17) or weaker conditions seem to be needed in order for the infinite horizon version of these neccessary conditons to hold (Satz 7.4).

For a proof, the present writer used a weakened version of (6.17) in: A. Seierstad: "Necessary conditons for inifinite horizon optimal control problems with state constraints", Proceedings of the 25th IEEE Conference on Decisions and Control, Dec. 10–12, 1986, p. 512.

When presenting necessary conditions for problems with pure state restrictions, the author always has to make some choices among various approaches. There are a number of versions of such conditions around. Originally, these versions stem from different proofs of various generality. Nowadays, when proofs of "full" generality exist (Neustadt, Tihomirov and Ioffe, and others), if would seem reasonable to include all informations contained in such proofs in necessary conditions presented, whether the one or the other version of necessary conditions is chosen. This means in particular that the "full" maximum condition should be presented, as well as conditions fully representing the nonnegativity of multipliers connected with the constraints of the form $h(x, t) \geqslant 0$. (For the indirect approach, this nonnegativity must be expressed in an indirect way.) Preferably, also results on constraints of higher order should be derived from the general results. The authors have not fully followed such a program. But, no doubt, their exposition is still extremely useful. (The reader should beware a misprint in Satz 6.3. A bar above Ω is lacking.)

To conclude: The book is highly recommended, both as an introductory text, and as a rich source of reference. The book contains a wealth of reliable information and makes up a comprehensive tool kit for all who want to solve optimal control problems on their own.

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Erratum

The book review on Bollobás, B.: Random graphs in ZOR 32(5) 1988, is due to A. Ruciński (Posnań)