



[Edw1989]

Segmentation of SAR Imagery Containing Forest Clear Cuts

Authors: Edwards Geoffrey, Jean-Marie **Beaulieu**

Conference: IEEE International Geoscience and Remote Sensing Symposium,
IGARSS'89
Vancouver, Canada

July 10-14, 1989, vol. 3, pp. 1195-1197

URL: <https://ieeexplore.ieee.org/document/576042>

DOI: [10.1109/IGARSS.1989.576042](https://doi.org/10.1109/IGARSS.1989.576042)

Abstract: A Hierarchical Step-Wise Optimisation (HSWO) algorithm has been adapted to the problem of identifying and mapping forest clear cuts in synthetic aperture radar (SAR) C-band imagery. Preliminary results are presented. The mean grey level of a segment is the most useful segment discriminator, especially for recent clear cuts, but relative segment size and the ratio of perimeter length to surface area (P/A) appear to be useful secondary discriminators. A filtered image which is segmented appears to be the most reliable for locating clear cuts, whereas the unfiltered image, when segmented, yields better boundary information. A method for combining both segment partitions is presented. All clear cuts in the sample were identified. Surface areas concord with manually estimated values.

Segmentation of SAR Imagery Containing Forest Clear Cuts,
Edwards Geoffrey, Jean-Marie **Beaulieu**,
IEEE International Geoscience and Remote Sensing Symposium, IGARSS'89,
Vancouver, Canada, July 10-14, 1989, pp. 1195-1197.

DOWNLOAD [from the Publisher](#)

DOWNLOAD [this page printed version](#)

© 1989 IEEE. Personal use of this material is permitted. Permission from IEEE must be obtained for all other uses, in any current or future media, including reprinting/republishing this material for advertising or promotional purposes, creating new collective works, for resale or redistribution to servers or lists, or reuse of any copyrighted component of this work in other works.

Published in: 12th Canadian Symposium on Remote Sensing Geoscience and Remote Sensing Symposium,

Date of Conference: 10-14 July 1989

Date Added to IEEE Xplore: 06 August 2002

Conference Location: Vancouver, BC, Canada

Publisher: IEEE

© Jean-Marie Beaulieu