

QUARTERLY REPORT
NASA CONTRACT NAS5-31368
FOR MODIS TEAM MEMBER STEVEN W. RUNNING
ASSOC. TEAM MEMBERS E.RAYMOND HUNT, RAMAKRISHNA R. NEMANI

Activities of Team Member SWRunning

Algorithm Theoretical Basis Documents (ATBDs)
The whole team is working on our ATBD revisions, due Nov 1 and Dec 1.

EOS-LTER interaction
SWR attended a planning meeting in Denver on August 24 to prepare the final outline of the proposal.

BOREAS
SWR attended IFC-2, and chaired a meeting of the Boreas Modeling group.

MODLAND journal paper
Publication of the MODLAND journal paper in Int. J. Remote Sensing is anticipated emminently, according to the Editor, John Townshend. SWR did galley proofs in Sept.

EOS-IWG
SWR was elected chair of the Land Group for IWG, and attended his first meeting in this capacity Oct 19-21.

Attended MODIS Science Team meeting, Oct 12-14, 1994
Attended MODIS Flathead Lake meeting on Simulated Data
Attended EOS IWG meeting in Hunt Valley, MD Oct 19-21.

Activities of Assoc Team Member E.R. Hunt

Ray Hunt attended the Oak Ridge Land DAAC Science Advisory Group, August 29-30.

Dr. Hunt also gave a short course in New Brunswick, August 11-16 on scientific interrelationships between SAR and MODIS Vegetation Indices

Activites of Assoc. Team Member R.R. Nemani

Attended MODIS Science Team meeting, Oct 12-14, 1994
Attended MODIS Flathead Lake meeting on Simulated Data

Met with Dr. Ranga Myneni, NASA GSFC on implementation of the Myneni 3-D.

A new implementation plan for the MODIS landcover classification has been completed, based on the logic of Running et al in Ambio (1994), involving an innovative use of surface temperature to discrinate different biomes. This paper has been submitted to Ecological Applications (Nemani and Running 1994).

Activities of Software Engineer, Joseph Glassy

Attended MODIS Science Team meeting, Oct 12-14, 1994

Attended MODIS Flathead Lake meeting on Simulated Data

Built proto-type versions of algorithms for deriving FPAR and LAI from MODIS data for the ATBDs. A sensitivity analysis of various parameters in the algorithms is being undertaken using a 3-D canopy radiation model. Prepared ATBD revision.

PUBLICATIONS

Running, S.W., C.O. Justice, V.V.Salomonson, D. Hall, J. Barker, Y.J. Kaufmann, A.H. Strahler, A.R. Huete, J.-P. Muller, V.C. Vanderbilt, Z.M. Wan, P. Teillet, D. Carneggie. 1994. Terrestrial remote sensing science and algorithms planned for EOS/MODIS. Int. J. Remote Sensing (in press).

Running, S.W., T.R. Loveland, L.L. Pierce and E.R. Hunt, Jr. 1994. A remote sensing based vegetation classification logic for global land cover analysis. Remote Sensing of Environment 94:

Ford, R., S.W. Running and R.R. Nemani. 1994. A modular system for scalable ecological modeling. IEEE Computational Science and Engineering 1:32-44

White, J.D. and S.W. Running. 1994. Testing scale dependent assumptions in regional ecosystem simulations. J.Vegetation Science 5:687-702.

Pierce, LL, S.W. Running and R. Nemani. 1994. The effects of aggregating sub-grid land surface variation on regional scale estimates of net primary production. Landscape Ecology (in review)

Nemani, R. and S.W. Running. 1994. "Land cover characterization using using multi-temporal RED, NIR and TIR from NOAA/AVHRR. Ecological Applications (submitted).