

## AstroCalcPureRv – 7 October 2014

This is an updated “pure R” version of our software (involving no externally linked C functions) that has been vectorized to substantially improve the speed of calculations.

Earlier versions are available but deprecated.

The new function name is AstroCalcPureRv() instead of AstroCalcPureR() or AstroCalc4R(). All arguments in the new code are the same as in previous versions with one exception. Now the argument called acknowledgment is set to FALSE by default to unnecessary output to the screen.

The documentation has not been revised:

Jacobson L, Seaver A, Tang J. 2011. AstroCalc4R: software to calculate solar zenith angle; time at sunrise, local noon and sunset; and photosynthetically available radiation based on date, time and location. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 11-14; 10 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026, or online at <http://www.nefsc.noaa.gov/nefsc/publications/>.

Note that the documentation may be easiest to obtain at <http://www.nefsc.noaa.gov/publications/crd/crd1114/index.html>

Larry Jacobson ([Larry.Jacobson@noaa.gov](mailto:Larry.Jacobson@noaa.gov)) and Jiashen Tang  
Northeast Fisheries Science Center  
NOAA, National Marine Fisheries Service  
Woods Hole, MA