

Acknowledgements

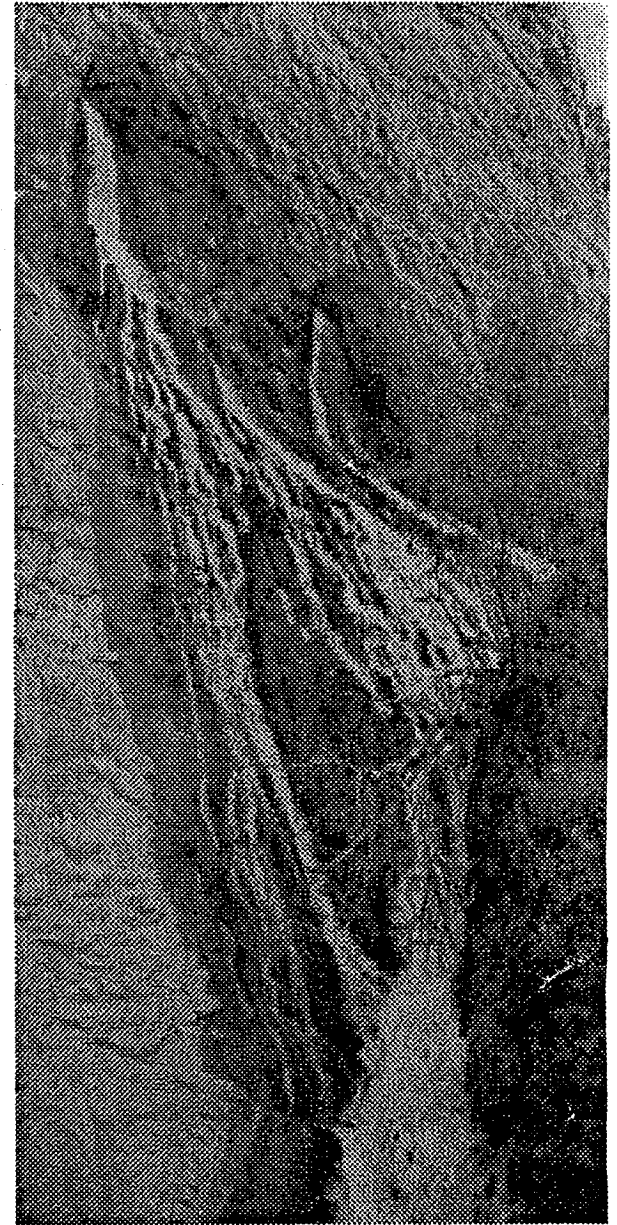
This booklet would not be possible without the generous help, guidance, and patience of many volunteers, scientists, and river guides that assisted me in the collection of this information.

A special thanks to Larry Stevens for his advice and instruction in the use of the Solar Pathfinder™; to Chris Franke for helping me collect data on more than two dozen new campsites during a High Desert Adventures trip, and introducing me to many of his fellow guides; and to Kenny Baker for providing needed missing data, proof-reading, and shared inspiration on creating a "Book of Shade."

My appreciation and thanks to the following individuals that helped me in this endeavor: Dan Adikes, Cynthia Amador, Tony Anderson, Roy Averill-Murray, Jeff Behan, Dave Baker, Liz Baldwin, Jeff Bennett, Steve Bledsoe, Alison Bowden, Chris Brod, Nikolle Brown, Kirk Burnett, Annette Campe, Roger Cogan, Kim Crumbo, "Young" Tim Dale, Neicia Davidson, Renee Davis, Brian Dierker, Roz Driscoll, Billy Ellwanger, Merriane Etter, Robert Ferrell, Alex Gomez, Miguel Gomez, Brian & Eve Hanson, Joe Hazel, Brenda Healy, Bruce & Nancy Helin, Jennifer Hodge, Jim Hoffman, Mike Huckaby, Lainie Johnstone, Matt Kaplinski, John Koloszar, Ken Kotalik, Cindy Krznarich, Dennis Kubly, Elaine Leslie, Lorry Levine, Casey Lott, Mike Mallett, Mark Manone, Matt Manone, Jerry Martinez, Ric & Jeanie Mayer, Mariann McKenzie, Vicky Meretsky, Verma Miera, Lars Neimi, Clay Nelson, Jodi Niccum, Bill Parker, John Parker, Dirk Pratley, Mike Randolph, Kirsten Rowell, Joe Shannon, Mike Shaver, Leann Skrzynski, Della Snyder, John & Joanne Sorensen, Robert Sorensen, Lew Steiger, Tom Swartz, Paula Swenski, Melinda Thompson, Mike Venditto, Eric Wallace, V. Ward, Eric Wilson, Kevin Wilson, and Mike Yard.

The Boatman's Almanac

A compilation of monthly sunrise & sunset times for campsites & cool places in Grand Canyon



By Jeff Sorensen
March 1999 Edition

Preface

The information in this booklet was recorded from an instrument called the Solar Pathfinder™. Architects & engineers use this modern-day “sundial” to measure the amount of annual solar energy that affects a specific location.

Using the Solar Pathfinder™ we can predict the average monthly sunrise & sunset times **within a half hour accuracy (+/-)** for each location recorded. Discrepancies in actual sunrise & sunset times may result from changes in seasonal tree canopy, topographical features of canyon walls, time of the month, & the exact location where initial readings were taken. In most cases, Pathfinder readings were taken in the **center of the beach or camp “kitchen”** where most people would congregate.

It's my intent to provide a useful guide for Grand Canyon river runners in choosing campsites that offer early summer shade or early winter sunlight. Backpackers & photographers may also find this information useful for optimizing available daylight.

This is a free publication—my gift to the river guide community as a way of saying thanks.

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Phoenix, Arizona

Solar Pathfinder™ is a registered trademark (1995)
Solar Pathfinder, 196 Moore Road, Iron City, TN 38463

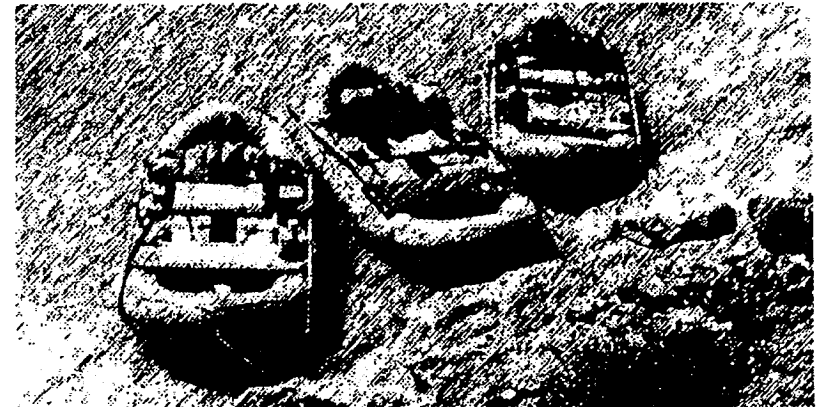
This booklet is dedicated to the men & women working in Grand Canyon as boatmen of the Colorado River. Your knowledge, spirit, & love of the Canyon inspires others that visit this remarkable place. Thank you!

220 MI RR CAMP (upper camp, kitchen)

| Month | Sunrise | Sunset |
|-------|---------|--------|
| JAN | 08:30 | 15:00 |
| FEB | 08:30 | 16:00 |
| MAR | 07:30 | 16:00 |
| APR | 07:30 | 16:00 |
| MAY | 07:30 | 16:30 |
| JUN | 07:30 | 16:30 |
| JUL | 07:30 | 16:30 |
| AUG | 07:30 | 16:00 |
| SEP | 07:30 | 15:30 |
| OCT | 08:00 | 16:00 |
| NOV | 08:30 | 15:30 |
| DEC | 08:30 | 15:00 |

224.5 MI RL CAMP (lower camp, kitchen)

| Month | Sunrise | Sunset |
|-------|---------|--------|
| JAN | 11:30 | 16:00 |
| FEB | 10:00 | 16:00 |
| MAR | 09:30 | 16:30 |
| APR | 08:30 | 16:30 |
| MAY | 08:00 | 17:00 |
| JUN | 08:00 | 17:00 |
| JUL | 08:00 | 17:00 |
| AUG | 08:30 | 17:00 |
| SEP | 09:00 | 16:30 |
| OCT | 10:00 | 16:00 |
| NOV | 11:30 | 16:00 |
| DEC | 12:00 | 16:00 |



About the Author

Jeff Sorensen is a wildlife biologist with the Arizona Game & Fish Department. Over the last three years, Jeff participated in studies of the Kanab ambersnail at Vaseys Paradise. He has also surveyed numerous springs & seeps along the river corridor & remote backcountry of Grand Canyon.

PARASHANT CAMP
(198.5 mi RR, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|-------------------|---------------|
| JAN | (no direct light) | |
| FEB | 09:00 | 14:00 |
| MAR | 08:30 | 14:00 |
| APR | 08:30 | 14:00 |
| MAY | 08:00 | 14:30 |
| JUN | 08:00 | 14:30 |
| JUL | 07:30 | 14:30 |
| AUG | 08:30 | 14:30 |
| SEP | 08:30 | 14:30 |
| OCT | 08:30 | 14:00 |
| NOV | 09:00 | 14:00 |
| DEC | 09:00 | 14:00 |

202 MI RR CAMP
(main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 09:30 | 15:30 |
| FEB | 09:30 | 15:30 |
| MAR | 09:30 | 15:30 |
| APR | 08:30 | 16:00 |
| MAY | 08:00 | 16:00 |
| JUN | 07:30 | 16:00 |
| JUL | 08:00 | 16:00 |
| AUG | 08:30 | 16:00 |
| SEP | 09:30 | 16:00 |
| OCT | 09:30 | 15:30 |
| NOV | 09:30 | 15:30 |
| DEC | 10:00 | 15:30 |

LEE'S FERRY RAMP
(upper parking lot)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 08:00 | 16:30 |
| FEB | 07:30 | 16:30 |
| MAR | 07:30 | 17:00 |
| APR | 07:00 | 17:30 |
| MAY | 06:30 | 18:00 |
| JUN | 06:30 | 18:00 |
| JUL | 06:30 | 18:00 |
| AUG | 06:30 | 17:30 |
| SEP | 07:00 | 17:00 |
| OCT | 07:30 | 17:00 |
| NOV | 08:00 | 16:30 |
| DEC | 08:00 | 16:30 |

18 MI RR CAMP
(main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 12:00 | 16:00 |
| FEB | 11:00 | 15:30 |
| MAR | 09:30 | 15:30 |
| APR | 09:00 | 15:30 |
| MAY | 09:00 | 15:30 |
| JUN | 09:00 | 15:30 |
| JUL | 09:00 | 15:30 |
| AUG | 09:30 | 15:30 |
| SEP | 09:30 | 15:30 |
| OCT | 09:30 | 15:30 |
| NOV | 11:30 | 16:00 |
| DEC | 12:00 | 16:00 |

GRANITE PARK CAMP
(208.8 mi RL, beach)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 10:00 | 15:00* |
| FEB | 09:00 | 15:30* |
| MAR | 09:00 | 16:30* |
| APR | 09:00 | 17:30 |
| MAY | 08:00 | 17:30 |
| JUN | 08:00 | 17:30 |
| JUL | 08:00 | 17:30 |
| AUG | 09:00 | 17:30 |
| SEP | 09:00 | 17:00* |
| OCT | 09:00 | 15:30* |
| NOV | 10:00 | 15:00* |
| DEC | 10:00 | 15:30* |

(*1-2 hrs shade from trees)

THREE SPRINGS
(215.6 mi RL, drainage)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 09:30 | 14:30 |
| FEB | 08:30 | 16:00 |
| MAR | 07:30 | 16:00 |
| APR | 07:00 | 16:00 |
| MAY | 07:00 | 16:30 |
| JUN | 07:00 | 16:30 |
| JUL | 07:00 | 16:30 |
| AUG | 07:00 | 16:30 |
| SEP | 07:00 | 16:00 |
| OCT | 08:00 | 16:00 |
| NOV | 09:30 | 14:30 |
| DEC | 10:30 | 14:00 |

20 MI RL CAMP
(main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 10:30 | 14:30 |
| FEB | 10:00 | 14:30 |
| MAR | 09:30 | 14:30 |
| APR | 09:30 | 15:00 |
| MAY | 09:00 | 15:00 |
| JUN | 09:00 | 15:00 |
| JUL | 09:00 | 15:00 |
| AUG | 09:30 | 15:00 |
| SEP | 09:30 | 14:30 |
| OCT | 10:00 | 14:30 |
| NOV | 10:00 | 14:30 |
| DEC | 11:00 | 14:30 |

NORTH CANYON
(20.5 mi RR, upper camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 10:30 | 13:30 |
| FEB | 10:00 | 14:00 |
| MAR | 09:30 | 15:30 |
| APR | 09:30 | 16:00 |
| MAY | 09:00 | 16:00 |
| JUN | 08:30 | 16:00 |
| JUL | 08:30 | 16:00 |
| AUG | 09:00 | 16:00 |
| SEP | 09:30 | 15:30 |
| OCT | 10:00 | 14:00 |
| NOV | 10:30 | 14:00 |
| DEC | 10:30 | 13:30 |

24.5 MI RL CAMP
(upper camp)

| Month | Sunrise | Sunset |
|-------|---------|--------|
| JAN | 11:30 | 16:00 |
| FEB | 10:30 | 16:30 |
| MAR | 10:00 | 16:30 |
| APR | 09:00 | 16:30 |
| MAY | 08:00 | 16:00 |
| JUN | 08:00 | 16:00 |
| JUL | 08:00 | 16:00 |
| AUG | 09:00 | 16:00 |
| SEP | 09:30 | 16:30 |
| OCT | 10:30 | 16:30 |
| NOV | 11:00 | 16:00 |
| DEC | 12:00 | 16:00* |

(*0.5 hr break 1500-1530)

26.3 MI RL CAMP
(camp above Tiger Wash)

| Month | Sunrise | Sunset |
|-------|---------|--------|
| JAN | 13:30 | 15:00 |
| FEB | 12:30 | 15:30 |
| MAR | 12:30 | 15:30 |
| APR | 11:30 | 16:00 |
| MAY | 11:00 | 16:00 |
| JUN | 10:30 | 16:00 |
| JUL | 10:30 | 16:00 |
| AUG | 11:30 | 16:00 |
| SEP | 12:00 | 15:30 |
| OCT | 12:30 | 15:30 |
| NOV | 13:00 | 15:00 |
| DEC | 13:30 | 15:00 |

186 MI RL CAMP
(lower camp)

| Month | Sunrise | Sunset |
|-------|---------|--------|
| JAN | 11:30 | 12:30 |
| FEB | 11:00 | 16:00 |
| MAR | 10:30 | 16:00 |
| APR | 08:00 | 17:00 |
| MAY | 07:30 | 16:30 |
| JUN | 07:30 | 16:00 |
| JUL | 08:00 | 16:00 |
| AUG | 08:00 | 16:30 |
| SEP | 10:00 | 16:30 |
| OCT | 10:30 | 16:00 |
| NOV | 11:00 | 12:30 |
| DEC | 12:00 | 12:30 |

WHITMORE HELIPAD
(187.1 mi RL, beach)

| Month | Sunrise | Sunset |
|-------|-------------------|--------|
| JAN | (no direct light) | |
| FEB | 15:00 | 16:00 |
| MAR | 13:00 | 17:00 |
| APR | 12:00 | 17:00 |
| MAY | 11:00 | 16:30 |
| JUN | 11:00 | 16:30 |
| JUL | 11:00 | 16:30 |
| AUG | 11:30 | 17:00 |
| SEP | 12:30 | 17:00 |
| OCT | 14:30 | 16:30 |
| NOV | (no direct light) | |
| DEC | (no direct light) | |

SILVER GROTTTO CAMP
(29.3 mi RL, main camp)

| Month | Sunrise | Sunset |
|-------|---------|--------|
| JAN | 15:30 | 16:00 |
| FEB | 14:30 | 16:00 |
| MAR | 13:30 | 16:30 |
| APR | 12:00 | 16:30 |
| MAY | 11:30 | 17:00 |
| JUN | 11:30 | 17:00 |
| JUL | 11:30 | 17:00 |
| AUG | 12:00 | 16:30 |
| SEP | 13:00 | 16:30 |
| OCT | 14:00 | 16:00 |
| NOV | 13:30 | 16:00 |
| DEC | 13:30 | 16:00 |

FENCE FAULT CAMP
(30.4 mi RR, main camp)

| Month | Sunrise | Sunset |
|-------|---------|--------|
| JAN | 10:30 | 14:30 |
| FEB | 10:00 | 14:30 |
| MAR | 09:00 | 15:00 |
| APR | 08:30 | 15:30 |
| MAY | 08:00 | 15:30 |
| JUN | 07:30 | 16:00 |
| JUL | 08:00 | 15:30 |
| AUG | 08:00 | 15:30 |
| SEP | 09:00 | 15:00 |
| OCT | 09:30 | 14:30 |
| NOV | 10:30 | 14:00 |
| DEC | 10:30 | 14:30 |

LOWER WHITMORE
(188.2 mi RR, lower camp)

| Month | Sunrise | Sunset |
|-------|---------|--------|
| JAN | 10:00 | 14:00 |
| FEB | 10:00 | 15:30 |
| MAR | 09:30 | 16:00 |
| APR | 08:30 | 17:00 |
| MAY | 08:00 | 16:30 |
| JUN | 07:30 | 17:00 |
| JUL | 08:00 | 16:30 |
| AUG | 08:30 | 17:00 |
| SEP | 09:00 | 16:00 |
| OCT | 09:30 | 15:30 |
| NOV | 10:30 | 14:00 |
| DEC | 10:30 | 14:00 |

HUALAPAI ACRES
(194.1 mi RL, upper camp)

| Month | Sunrise | Sunset |
|-------|-------------------|--------|
| JAN | 11:30 | 12:00 |
| FEB | 11:00 | 14:00 |
| MAR | 08:00 | 16:00 |
| APR | 07:30 | 16:00 |
| MAY | 07:30 | 18:00 |
| JUN | 07:30 | 18:00 |
| JUL | 07:30 | 18:00 |
| AUG | 07:30 | 16:30 |
| SEP | 08:00 | 16:00 |
| OCT | 10:30 | 14:00 |
| NOV | 11:00 | 13:00 |
| DEC | (no direct light) | |

COVE CANYON CAMP
(174.3 mi RR, upper camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 15:30 | 16:00 |
| FEB | 12:00 | 16:30* |
| MAR | 07:30 | 16:30** |
| APR | 07:30 | 16:30 |
| MAY | 07:30 | 16:00 |
| JUN | 07:30 | 17:00 |
| JUL | 07:30 | 17:00 |
| AUG | 07:30 | 17:00 |
| SEP | 07:30 | 17:00 |
| OCT | 07:00 | 17:00*** |
| NOV | 15:00 | 16:00 |
| DEC | 15:30 | 16:00 |

(*1 hr break 1230-1330)
(**1 hr break 1000-1100)
(*** 3.5 hr break 0800-1130)

BELOW RED SLIDE
(175.9 mi RL, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 13:00 | 15:30 |
| FEB | 12:30 | 15:30 |
| MAR | 11:30 | 15:30 |
| APR | 09:30 | 15:30 |
| MAY | 09:00 | 15:00 |
| JUN | 07:30 | 15:00 |
| JUL | 08:30 | 15:00 |
| AUG | 09:00 | 15:30 |
| SEP | 10:00 | 15:30 |
| OCT | 12:00 | 15:30 |
| NOV | 13:00 | 15:30 |
| DEC | 13:00 | 15:30 |

SOUTH CANYON
(31.7 mi RR, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 11:30 | 15:30 |
| FEB | 11:00 | 15:00 |
| MAR | 10:30 | 15:30 |
| APR | 09:30 | 16:00 |
| MAY | 09:00 | 16:00 |
| JUN | 08:30 | 16:00 |
| JUL | 09:00 | 16:00 |
| AUG | 09:00 | 16:00 |
| SEP | 10:00 | 15:30 |
| OCT | 11:00 | 15:00 |
| NOV | 11:00 | 15:00 |
| DEC | 11:30 | 14:30 |

VASEYS PARADISE
(31.8 mi RR, base of springs)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|-------------------|---------------|
| JAN | (no direct light) | |
| FEB | (no direct light) | |
| MAR | 07:30 | 11:30 |
| APR | 07:00 | 13:30 |
| MAY | 07:30 | 13:30 |
| JUN | 07:30 | 14:00 |
| JUL | 07:30 | 13:30 |
| AUG | 07:00 | 13:30 |
| SEP | 07:30 | 11:30 |
| OCT | 08:30 | 09:30 |
| NOV | (no direct light) | |
| DEC | (no direct light) | |

HONGA SPRING
(177.0 mi RL, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 12:30 | 14:00 |
| FEB | 11:30 | 15:00 |
| MAR | 09:00 | 15:00 |
| APR | 09:30 | 16:00 |
| MAY | 09:00 | 15:30 |
| JUN | 09:00 | 15:30 |
| JUL | 09:00 | 15:30 |
| AUG | 09:30 | 16:00 |
| SEP | 10:00 | 15:00 |
| OCT | 10:00 | 15:00 |
| NOV | 12:00 | 14:00 |
| DEC | 12:30 | 13:30 |

TEQUILA BEACH
(179.8 mi RR, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|-------------------|---------------|
| JAN | (no direct light) | |
| FEB | 11:00 | 16:30* |
| MAR | 10:00 | 16:30 |
| APR | 07:30 | 16:00 |
| MAY | 07:00 | 16:30 |
| JUN | 06:00 | 16:30 |
| JUL | 06:00 | 16:30 |
| AUG | 07:30 | 16:00 |
| SEP | 08:30 | 16:30 |
| OCT | 11:00 | 16:30** |
| NOV | 16:00 | 16:30 |
| DEC | (no direct light) | |

(*1.5 hr break 1300-1430)
(**0.5 hr break 1300-1330)

LITTLE REDWALL
(33.8 mi RL, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 13:00 | 14:00 |
| FEB | 13:00 | 14:30 |
| MAR | 13:00 | 15:00 |
| APR | 13:00 | 15:30 |
| MAY | 13:00 | 15:30 |
| JUN | 13:00 | 16:00 |
| JUL | 13:00 | 15:30 |
| AUG | 13:30 | 15:30 |
| SEP | 13:00 | 15:00 |
| OCT | 13:00 | 14:30 |
| NOV | 13:00 | 14:00 |
| DEC | 13:00 | 14:00 |

NAUTILOID CANYON
(34.8 mi RL, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 10:00 | 13:30 |
| FEB | 11:00 | 14:00 |
| MAR | 10:30 | 14:30 |
| APR | 10:00 | 14:30 |
| MAY | 10:30 | 15:00 |
| JUN | 10:30 | 15:00 |
| JUL | 10:30 | 15:00 |
| AUG | 10:00 | 14:30 |
| SEP | 10:30 | 14:30 |
| OCT | 10:00 | 14:30 |
| NOV | 10:00 | 13:30 |
| DEC | 10:00 | 13:30 |

MARTHA'S KITCHEN
(38.3 mi RL, upper camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|-------------------|---------------|
| JAN | (no direct light) | |
| FEB | (no direct light) | |
| MAR | (no direct light) | |
| APR | 14:00 | 16:00 |
| MAY | 12:30 | 15:30 |
| JUN | 12:00 | 15:30 |
| JUL | 12:30 | 15:30 |
| AUG | 13:00 | 16:00 |
| SEP | (no direct light) | |
| OCT | (no direct light) | |
| NOV | (no direct light) | |
| DEC | (no direct light) | |

BUCK FARM CAMP
(40.9 mi RR, upper camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 12:30 | 15:00 |
| FEB | 12:00 | 15:30 |
| MAR | 10:30 | 15:30 |
| APR | 10:00 | 14:30 |
| MAY | 09:00 | 15:00 |
| JUN | 07:30 | 16:30 |
| JUL | 08:00 | 16:30 |
| AUG | 09:30 | 14:30 |
| SEP | 10:30 | 15:00 |
| OCT | 12:30 | 15:30 |
| NOV | 12:30 | 15:30 |
| DEC | 13:00 | 15:00 |

LOWER NATIONAL
(166.6 mi RL, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|-------------------|---------------|
| JAN | (no direct light) | |
| FEB | 14:00 | 14:30 |
| MAR | 12:30 | 16:00 |
| APR | 11:30 | 16:30 |
| MAY | 10:00 | 16:00 |
| JUN | 10:00 | 16:00 |
| JUL | 10:00 | 16:00 |
| AUG | 11:00 | 16:30 |
| SEP | 12:00 | 16:30 |
| OCT | 14:00 | 15:00 |
| NOV | (no direct light) | |
| DEC | (no direct light) | |

FERN GLEN CAMP
(168.0 mi RR, lower camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 14:00 | 15:00 |
| FEB | 07:30 | 15:00* |
| MAR | 07:30 | 15:30 |
| APR | 07:30 | 15:30 |
| MAY | 07:30 | 16:30 |
| JUN | 07:30 | 16:00 |
| JUL | 07:30 | 16:00 |
| AUG | 07:30 | 15:30 |
| SEP | 07:30 | 15:30 |
| OCT | 07:30 | 15:30 |
| NOV | 14:00 | 15:00 |
| DEC | 14:00 | 15:00 |

(*4 hr break 0930-1330)

BERT'S CANYON
(41.4 mi RR, side canyon)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|-------------------|---------------|
| JAN | (no direct light) | |
| FEB | (no direct light) | |
| MAR | (no direct light) | |
| APR | 08:00 | 14:30* |
| MAY | 07:30 | 14:30 |
| JUN | 07:30 | 14:30 |
| JUL | 07:30 | 14:30 |
| AUG | 07:30 | 14:30 |
| SEP | 08:00 | 09:00** |
| OCT | (no direct light) | |
| NOV | (no direct light) | |
| DEC | (no direct light) | |

(*3 hr break 1000-1300)
(**2.5 hr break 1000-1230)

44 MI RL CAMP
(main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|-------------------|---------------|
| JAN | (no direct light) | |
| FEB | 12:30 | 15:30 |
| MAR | 11:00 | 17:00 |
| APR | 10:30 | 16:30 |
| MAY | 10:00 | 16:00 |
| JUN | 09:30 | 16:00 |
| JUL | 09:30 | 16:00 |
| AUG | 10:30 | 16:30 |
| SEP | 10:30 | 17:00 |
| OCT | 12:00 | 16:30 |
| NOV | (no direct light) | |
| DEC | (no direct light) | |

FERN GLEN SEEP
(first large hanging garden)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|-------------------|---------------|
| JAN | (no direct light) | |
| FEB | (no direct light) | |
| MAR | 09:30 | 10:00 |
| APR | 09:30 | 14:00 |
| MAY | 10:00 | 14:30 |
| JUN | 10:00 | 14:00 |
| JUL | 10:00 | 14:30 |
| AUG | 10:00 | 14:00 |
| SEP | 09:30 | 13:00 |
| OCT | (no direct light) | |
| NOV | (no direct light) | |
| DEC | (no direct light) | |

MOHAWK CANYON
(171.6 mi RL, beach)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 10:30 | 12:30 |
| FEB | 10:00 | 12:30 |
| MAR | 09:30 | 16:30 |
| APR | 08:30 | 17:00 |
| MAY | 06:00 | 16:30 |
| JUN | 06:00 | 16:30 |
| JUL | 06:00 | 16:30 |
| AUG | 08:00 | 17:00 |
| SEP | 09:30 | 17:00 |
| OCT | 09:30 | 12:30 |
| NOV | 10:00 | 12:30 |
| DEC | 10:30 | 11:30 |

MATKAT HOTEL
(148.4 mi RL, upper camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|-------------------|---------------|
| JAN | (no direct light) | |
| FEB | (no direct light) | |
| MAR | (no direct light) | |
| APR | 08:30 | 09:30 |
| MAY | 06:30 | 12:30* |
| JUN | 06:30 | 13:00** |
| JUL | 06:30 | 12:30* |
| AUG | 08:00 | 09:30 |
| SEP | (no direct light) | |
| OCT | (no direct light) | |
| NOV | (no direct light) | |
| DEC | (no direct light) | |

(*2.5 hr break 0930-1200)
(**1.5 hr break 1000-1130)

UPSET HOTEL
(150.4 mi RL, the "Hilton")

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|-------------------|---------------|
| JAN | (no direct light) | |
| FEB | 16:00 | 16:30 |
| MAR | 15:00 | 16:30 |
| APR | 14:00 | 16:00 |
| MAY | 13:30 | 16:00 |
| JUN | 13:00 | 16:00 |
| JUL | 13:30 | 16:00 |
| AUG | 14:00 | 16:00 |
| SEP | 14:30 | 16:30 |
| OCT | 15:30 | 16:30 |
| NOV | (no direct light) | |
| DEC | (no direct light) | |

UPPER SADDLE CAMP
(47.0 mi RR, upper kitchen)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 09:00 | 12:30 |
| FEB | 09:00 | 13:00 |
| MAR | 09:00 | 14:00 |
| APR | 09:00 | 15:00* |
| MAY | 09:00 | 16:00* |
| JUN | 09:00 | 16:00* |
| JUL | 09:00 | 16:00* |
| AUG | 09:00 | 16:00* |
| SEP | 09:00 | 15:00* |
| OCT | 09:00 | 13:30 |
| NOV | 09:00 | 12:30 |
| DEC | 09:00 | 12:30 |

(*1-2 hrs shade from trees)

LOWER SADDLE CAMP
(47.0 mi RR, beach)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 08:30 | 12:30 |
| FEB | 09:00 | 13:00 |
| MAR | 09:00 | 13:30 |
| APR | 09:00 | 14:00 |
| MAY | 08:00 | 14:30 |
| JUN | 08:00 | 15:00 |
| JUL | 08:00 | 15:00 |
| AUG | 08:30 | 14:30 |
| SEP | 09:00 | 13:30 |
| OCT | 09:00 | 13:00 |
| NOV | 08:30 | 12:30 |
| DEC | 08:30 | 12:30 |

LEDGES CAMP
(151.5 mi RR, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 12:00 | 14:30 |
| FEB | 11:30 | 14:30 |
| MAR | 11:00 | 15:30 |
| APR | 11:00 | 15:30 |
| MAY | 10:00 | 15:00 |
| JUN | 10:00 | 15:00 |
| JUL | 09:30 | 15:00 |
| AUG | 10:30 | 15:00 |
| SEP | 11:00 | 15:30 |
| OCT | 11:30 | 14:30 |
| NOV | 12:00 | 14:30 |
| DEC | 12:30 | 14:00 |

LAST CHANCE CAMP
(155.7 mi RR, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 11:00 | 14:00 |
| FEB | 10:30 | 14:00 |
| MAR | 10:30 | 14:30 |
| APR | 10:00 | 14:30 |
| MAY | 09:30 | 14:30 |
| JUN | 09:30 | 14:30 |
| JUL | 09:30 | 14:30 |
| AUG | 10:00 | 14:30 |
| SEP | 10:30 | 14:00 |
| OCT | 10:30 | 14:30 |
| NOV | 11:00 | 14:00 |
| DEC | 11:30 | 14:00 |

SADDLE CANYON
(side canyon, near narrows)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|-------------------|---------------|
| JAN | (no direct light) | |
| FEB | (no direct light) | |
| MAR | 13:30 | 14:30 |
| APR | 12:30 | 14:30 |
| MAY | 12:00 | 14:00 |
| JUN | 11:30 | 14:00 |
| JUL | 12:00 | 14:00 |
| AUG | 12:30 | 14:30 |
| SEP | 13:00 | 14:30 |
| OCT | 13:30 | 14:30 |
| NOV | (no direct light) | |
| DEC | (no direct light) | |

DINOSAUR CAMP
(50.0 mi RR, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 09:30 | 12:30 |
| FEB | 09:30 | 15:30* |
| MAR | 09:00 | 15:30 |
| APR | 08:30 | 16:00 |
| MAY | 08:30 | 16:00 |
| JUN | 08:30 | 16:00 |
| JUL | 08:30 | 16:00 |
| AUG | 08:30 | 16:00 |
| SEP | 09:00 | 15:30 |
| OCT | 09:00 | 15:30** |
| NOV | 09:30 | 12:30 |
| DEC | 10:00 | 12:00 |

(*1 hr break 1300-1400)
(**0.5 hr break 1300-1330)

51.2 MI RL CAMP
(main camp)

| Month | Sunrise | Sunset |
|-------|---------|--------|
| JAN | 10:30 | 14:30 |
| FEB | 10:00 | 14:30 |
| MAR | 09:30 | 15:00 |
| APR | 09:30 | 15:30 |
| MAY | 08:30 | 15:30 |
| JUN | 08:00 | 15:30 |
| JUL | 08:30 | 15:30 |
| AUG | 09:00 | 15:30 |
| SEP | 09:30 | 15:00 |
| OCT | 10:00 | 14:30 |
| NOV | 10:30 | 15:00 |
| DEC | 11:00 | 14:30 |

LITTLE NANKOWEAP
(51.8 mi RR, main camp)

| Month | Sunrise | Sunset |
|-------|---------|--------|
| JAN | 09:30 | 14:00 |
| FEB | 09:00 | 15:30 |
| MAR | 08:30 | 15:30 |
| APR | 08:30 | 15:00 |
| MAY | 08:30 | 15:00 |
| JUN | 08:30 | 15:00 |
| JUL | 08:30 | 15:00 |
| AUG | 08:30 | 15:00 |
| SEP | 08:30 | 15:30 |
| OCT | 08:30 | 15:30 |
| NOV | 09:30 | 14:00 |
| DEC | 09:30 | 13:30 |

DORIS CAMP
(137.9 mi RL, main camp)

| Month | Sunrise | Sunset |
|-------|-------------------|--------|
| JAN | (no direct light) | |
| FEB | (no direct light) | |
| MAR | 07:00 | 09:00 |
| APR | 07:00 | 10:00 |
| MAY | 06:30 | 11:30 |
| JUN | 06:30 | 11:30 |
| JUL | 06:30 | 11:30 |
| AUG | 07:00 | 10:30 |
| SEP | 07:00 | 09:30 |
| OCT | (no direct light) | |
| NOV | (no direct light) | |
| DEC | (no direct light) | |

KANAB CREEK MOUTH
(143.5 mi RR, main camp)

| Month | Sunrise | Sunset |
|-------|-------------------|--------|
| JAN | (no direct light) | |
| FEB | 10:00 | 16:30* |
| MAR | 07:30 | 16:30 |
| APR | 07:00 | 16:30 |
| MAY | 07:30 | 16:30 |
| JUN | 07:30 | 16:00 |
| JUL | 07:30 | 16:30 |
| AUG | 07:30 | 16:30 |
| SEP | 07:30 | 16:30 |
| OCT | 10:00 | 16:30* |
| NOV | (no direct light) | |
| DEC | (no direct light) | |

(*5 hr break 1030-1530)

MIDDLE NANKOWEAP
(53.0 mi RR, main camp)

| Month | Sunrise | Sunset |
|-------|---------|--------|
| JAN | 08:30 | 14:00 |
| FEB | 08:30 | 14:30 |
| MAR | 08:30 | 15:00 |
| APR | 08:30 | 15:00 |
| MAY | 08:30 | 15:00 |
| JUN | 08:30 | 15:00 |
| JUL | 08:30 | 15:00 |
| AUG | 08:30 | 15:00 |
| SEP | 08:30 | 15:00 |
| OCT | 08:30 | 14:30 |
| NOV | 08:30 | 14:00 |
| DEC | 08:30 | 12:00 |

LOWER NANKOWEAP
(53.1 mi RR, kitchen)

| Month | Sunrise | Sunset |
|-------|---------|--------|
| JAN | 08:30 | 11:30 |
| FEB | 08:00 | 14:00 |
| MAR | 08:00 | 14:30 |
| APR | 08:00 | 15:00 |
| MAY | 08:00 | 15:00 |
| JUN | 08:00 | 15:00 |
| JUL | 08:00 | 15:00 |
| AUG | 08:00 | 15:00 |
| SEP | 08:00 | 14:30 |
| OCT | 08:00 | 14:30 |
| NOV | 08:00 | 12:00* |
| DEC | 08:30 | 11:30 |

(*1.5 hr break 1230-1400)

WHISPERING FALLS
(3 mi up Kanab Creek)

| Month | Sunrise | Sunset |
|-------|-------------------|--------|
| JAN | (no direct light) | |
| FEB | (no direct light) | |
| MAR | 12:30 | 13:00 |
| APR | 11:30 | 13:00 |
| MAY | 11:30 | 13:00 |
| JUN | 11:30 | 13:00 |
| JUL | 11:30 | 13:00 |
| AUG | 11:30 | 13:30 |
| SEP | 12:00 | 13:00 |
| OCT | (no direct light) | |
| NOV | (no direct light) | |
| DEC | (no direct light) | |

ABOVE OLO CAMP
(145.2 mi RL, main camp)

| Month | Sunrise | Sunset |
|-------|---------|--------|
| JAN | 11:30 | 14:00 |
| FEB | 11:00 | 14:00 |
| MAR | 11:00 | 14:00 |
| APR | 11:00 | 14:30 |
| MAY | 10:30 | 14:30 |
| JUN | 10:30 | 14:30 |
| JUL | 10:30 | 14:30 |
| AUG | 11:00 | 14:30 |
| SEP | 11:00 | 14:00 |
| OCT | 11:00 | 14:00 |
| NOV | 11:30 | 14:00 |
| DEC | 11:30 | 14:00 |

JUNEBUG CAMP
(136.0 mi RL, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 08:00 | 13:00* |
| FEB | 07:30 | 13:30 |
| MAR | 07:00 | 15:00 |
| APR | 07:00 | 15:30 |
| MAY | 07:00 | 17:00 |
| JUN | 07:00 | 17:00 |
| JUL | 07:00 | 17:00 |
| AUG | 07:00 | 17:30 |
| SEP | 07:00 | 15:30 |
| OCT | 07:30 | 14:00 |
| NOV | 08:00 | 13:00 |
| DEC | 08:30 | 12:30** |

(*1 hr break 1000-1100)
(**0.5 hr break 1000-1030)

PONCHO'S KITCHEN
(136.8 mi RL, beach)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|-------------------|---------------|
| JAN | (no direct light) | |
| FEB | (no direct light) | |
| MAR | (no direct light) | |
| APR | 13:00 | 15:30* |
| MAY | 11:30 | 16:00* |
| JUN | 10:30 | 17:00* |
| JUL | 11:30 | 17:00* |
| AUG | 12:30 | 16:00* |
| SEP | 13:30 | 15:00* |
| OCT | (no direct light) | |
| NOV | (no direct light) | |
| DEC | (no direct light) | |

(*western half of the beach gets earlier sunlight)

KWAGUNT CAMP
(56.2 mi RR, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 10:30 | 14:00 |
| FEB | 10:00 | 14:30 |
| MAR | 09:30 | 14:30 |
| APR | 08:30 | 15:30 |
| MAY | 08:30 | 17:00 |
| JUN | 08:30 | 17:00 |
| JUL | 08:30 | 17:00 |
| AUG | 08:30 | 17:00 |
| SEP | 09:30 | 15:30 |
| OCT | 09:30 | 15:30 |
| NOV | 10:30 | 14:00 |
| DEC | 10:30 | 14:30 |

LCR CONFLUENCE
(64.1 mi RL, near the mouth)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 10:30 | 16:00* |
| FEB | 09:30 | 16:30 |
| MAR | 07:30 | 16:30 |
| APR | 07:00 | 16:30 |
| MAY | 07:00 | 16:30 |
| JUN | 07:00 | 16:30 |
| JUL | 07:00 | 16:30 |
| AUG | 07:00 | 16:30 |
| SEP | 07:00 | 16:30 |
| OCT | 08:00 | 16:30 |
| NOV | 10:30 | 16:00* |
| DEC | 10:30 | 15:30* |

(*1.5 hr break 1130-1300)

FOOTBALL FIELD
(136.9 mi RL, "50-yd line")

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 09:30 | 10:30 |
| FEB | 07:30 | 11:30 |
| MAR | 07:00 | 13:00 |
| APR | 06:30 | 14:00 |
| MAY | 06:30 | 15:30 |
| JUN | 06:30 | 15:30 |
| JUL | 06:30 | 15:30 |
| AUG | 06:30 | 14:30 |
| SEP | 07:00 | 13:30 |
| OCT | 07:00 | 12:00 |
| NOV | 09:30 | 10:30 |
| DEC | (at 1000 only) | |

BACK EDDY CAMP
(137.0 mi RL, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|-------------------|---------------|
| JAN | (no direct light) | |
| FEB | 08:00 | 09:00 |
| MAR | 08:00 | 09:30 |
| APR | 08:30 | 10:00 |
| MAY | 08:30 | 10:30 |
| JUN | 08:30 | 10:30 |
| JUL | 08:30 | 10:30 |
| AUG | 08:30 | 10:00 |
| SEP | 08:00 | 09:30 |
| OCT | 08:00 | 09:00 |
| NOV | (no direct light) | |
| DEC | (no direct light) | |

LAVA CHUAR CAMP
(65.5 mi RR, beach)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 08:30 | 14:30 |
| FEB | 08:30 | 14:30 |
| MAR | 08:00 | 16:00 |
| APR | 07:30 | 16:00 |
| MAY | 07:30 | 16:00 |
| JUN | 07:30 | 16:00 |
| JUL | 07:30 | 16:00 |
| AUG | 07:30 | 16:00 |
| SEP | 08:00 | 16:00 |
| OCT | 08:00 | 14:30 |
| NOV | 08:30 | 14:30 |
| DEC | 09:00 | 14:30 |

TANNER CAMP
(68.4 mi RR, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 09:00 | 16:30 |
| FEB | 08:30 | 16:30 |
| MAR | 08:00 | 17:00 |
| APR | 07:30 | 17:30 |
| MAY | 06:30 | 18:00 |
| JUN | 06:30 | 18:00 |
| JUL | 06:30 | 18:00 |
| AUG | 07:00 | 17:30 |
| SEP | 07:30 | 17:00 |
| OCT | 08:30 | 16:30 |
| NOV | 09:00 | 16:30 |
| DEC | 09:00 | 16:30 |

CARDENAS CAMP
(71.0 mi RL, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 08:30 | 15:00 |
| FEB | 07:30 | 16:00 |
| MAR | 07:00 | 17:00 |
| APR | 06:30 | 17:30 |
| MAY | 06:00 | 18:00 |
| JUN | 06:00 | 18:00 |
| JUL | 06:00 | 18:00 |
| AUG | 06:00 | 17:30 |
| SEP | 07:00 | 17:00 |
| OCT | 07:30 | 16:30 |
| NOV | 08:30 | 15:00 |
| DEC | 08:30 | 15:00 |

LOWER RATTLESNAKE
(74.3 mi RR, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 10:00 | 15:00 |
| FEB | 09:30 | 15:00 |
| MAR | 09:00 | 15:00 |
| APR | 08:30 | 15:30 |
| MAY | 08:00 | 16:00 |
| JUN | 08:00 | 17:00 |
| JUL | 08:00 | 16:00 |
| AUG | 08:30 | 15:30 |
| SEP | 08:30 | 15:00 |
| OCT | 09:30 | 15:00 |
| NOV | 10:00 | 15:00 |
| DEC | 10:30 | 15:00 |

RACETRACK CAMP
(133.5 mi RR, near Tapeats)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 08:30 | 14:30 |
| FEB | 08:30 | 14:30 |
| MAR | 08:30 | 15:00 |
| APR | 08:30 | 17:00 |
| MAY | 09:00 | 17:00 |
| JUN | 09:00 | 17:00 |
| JUL | 09:00 | 17:00 |
| AUG | 09:00 | 17:00 |
| SEP | 08:30 | 16:00 |
| OCT | 08:30 | 14:30 |
| NOV | 08:30 | 14:30 |
| DEC | 08:30 | 14:30 |

UPPER TAPEATS
(133.8 mi RR, at confluence)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 10:00 | 14:00 |
| FEB | 09:00 | 14:00 |
| MAR | 09:00 | 16:00 |
| APR | 09:00 | 16:30 |
| MAY | 09:00 | 15:30 |
| JUN | 09:00 | 15:30 |
| JUL | 09:00 | 15:30 |
| AUG | 09:00 | 16:00 |
| SEP | 09:00 | 16:00 |
| OCT | 09:00 | 15:00 |
| NOV | 10:00 | 14:00 |
| DEC | 10:30 | 14:00 |

UPPER NEVILL'S CAMP
(75.3 mi RL, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 13:00 | 15:30 |
| FEB | 12:30 | 16:00 |
| MAR | 11:30 | 16:00* |
| APR | 11:30 | 16:30** |
| MAY | 13:00 | 17:00** |
| JUN | 13:00 | 17:00** |
| JUL | 13:00 | 17:00** |
| AUG | 13:00 | 16:30 |
| SEP | 11:00 | 16:00 |
| OCT | 12:30 | 16:00 |
| NOV | 13:00 | 15:30 |
| DEC | 13:30 | 15:30 |

(*0.5 hr break 1200-1230)
(**2-3 hrs shade from trees)

NEVILL'S RAPID CAMP
(75.6 mi RL, beach)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 10:30 | 15:30 |
| FEB | 09:00 | 15:00 |
| MAR | 09:00 | 15:00 |
| APR | 08:30 | 15:00 |
| MAY | 07:30 | 15:00 |
| JUN | 07:30 | 15:00 |
| JUL | 07:30 | 15:00 |
| AUG | 08:00 | 15:30 |
| SEP | 09:00 | 15:00 |
| OCT | 09:00 | 15:00 |
| NOV | 09:30 | 15:30 |
| DEC | 10:30 | 15:30 |

THUNDER RIVER
(overlook near Thunder Spring)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 09:00 | 15:00 |
| FEB | 07:00 | 15:00 |
| MAR | 07:00 | 15:30 |
| APR | 06:30 | 15:30 |
| MAY | 06:30 | 15:30 |
| JUN | 06:30 | 15:30 |
| JUL | 06:30 | 15:30 |
| AUG | 06:30 | 15:30 |
| SEP | 07:00 | 15:30 |
| OCT | 07:00 | 15:00 |
| NOV | 08:30 | 14:30 |
| DEC | 08:00 | 14:30 |

DEER SPRING
(Deer Creek, trail near spring)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 12:00 | 16:00 |
| FEB | 11:30 | 16:30 |
| MAR | 11:00 | 17:00 |
| APR | 08:30 | 17:00 |
| MAY | 09:00 | 17:30 |
| JUN | 09:00 | 17:00 |
| JUL | 09:00 | 17:00 |
| AUG | 08:30 | 17:00 |
| SEP | 11:00 | 17:00 |
| OCT | 11:00 | 16:30 |
| NOV | 11:30 | 16:00 |
| DEC | 11:30 | 16:00 |

BLACKTAIL CAMP
(120.0 mi RR, upper camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 08:30 | 11:30 |
| FEB | 08:00 | 15:00* |
| MAR | 07:00 | 16:00 |
| APR | 07:30 | 17:30 |
| MAY | 07:30 | 18:00 |
| JUN | 07:30 | 18:00 |
| JUL | 07:30 | 18:00 |
| AUG | 07:30 | 18:00 |
| SEP | 07:00 | 17:00 |
| OCT | 08:00 | 15:00 |
| NOV | 08:00 | 11:30 |
| DEC | 08:30 | 11:00 |

125.4 MI RL CAMP
(main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 12:00 | 15:30 |
| FEB | 09:00 | 16:00* |
| MAR | 08:00 | 16:00 |
| APR | 07:30 | 16:30 |
| MAY | 06:30 | 16:00 |
| JUN | 06:00 | 16:00 |
| JUL | 06:00 | 16:00 |
| AUG | 07:00 | 16:00 |
| SEP | 08:00 | 16:30 |
| OCT | 08:30 | 16:00 |
| NOV | 12:00 | 15:30 |
| DEC | 12:30 | 15:30 |

122 MI RR CAMP
(main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 09:00 | 13:00* |
| FEB | 07:30 | 14:00 |
| MAR | 07:00 | 15:30 |
| APR | 06:30 | 16:30 |
| MAY | 07:00 | 17:00 |
| JUN | 07:00 | 17:00 |
| JUL | 07:00 | 17:00 |
| AUG | 06:30 | 17:00 |
| SEP | 06:30 | 16:30 |
| OCT | 07:30 | 14:30 |
| NOV | 09:00 | 13:30** |
| DEC | 09:00 | 13:00*** |

STONE CREEK CAMP
(132.0 mi RR, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 09:30 | 14:30 |
| FEB | 08:30 | 14:30 |
| MAR | 08:30 | 15:00 |
| APR | 08:30 | 17:00 |
| MAY | 09:00 | 17:00 |
| JUN | 09:00 | 17:00 |
| JUL | 09:00 | 17:00 |
| AUG | 09:00 | 17:00 |
| SEP | 08:30 | 16:00 |
| OCT | 08:30 | 14:30 |
| NOV | 08:30 | 14:30 |
| DEC | 08:30 | 14:00 |

HANCE CAMP
(76.7 mi RL, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 12:30 | 14:30 |
| FEB | 11:00 | 15:30* |
| MAR | 08:00 | 16:00 |
| APR | 06:30 | 17:30 |
| MAY | 06:00 | 18:00 |
| JUN | 06:00 | 18:00 |
| JUL | 06:00 | 18:00 |
| AUG | 06:30 | 17:30 |
| SEP | 07:00 | 17:00 |
| OCT | 09:00 | 15:00 |
| NOV | 12:30 | 14:00 |
| DEC | 12:30 | 13:30 |

UPPER CREMATION
(87.1 mi RL, upper camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|-------------------|---------------|
| JAN | (no direct light) | |
| FEB | (no direct light) | |
| MAR | (no direct light) | |
| APR | 07:30 | 15:30* |
| MAY | 07:30 | 15:30** |
| JUN | 07:30 | 16:00 |
| JUL | 07:30 | 15:30 |
| AUG | 07:30 | 15:30*** |
| SEP | (no direct light) | |
| OCT | (no direct light) | |
| NOV | (no direct light) | |
| DEC | (no direct light) | |

GRAPEVINE CAMP
(81.3 mi RL, kitchen)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|-------------------|---------------|
| JAN | (no direct light) | |
| FEB | 08:00 | 10:00* |
| MAR | 07:30 | 13:30** |
| APR | 07:00 | 13:30 |
| MAY | 07:00 | 14:00 |
| JUN | 07:00 | 14:30 |
| JUL | 07:00 | 14:00 |
| AUG | 07:00 | 14:00 |
| SEP | 07:30 | 13:30** |
| OCT | 07:30 | 13:00** |
| NOV | (no direct light) | |
| DEC | (no direct light) | |

LOWER CREMATION
(87.2 mi RL, lower camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 10:30 | 12:00 |
| FEB | 10:30 | 13:00 |
| MAR | 07:30 | 15:30 |
| APR | 07:30 | 17:00 |
| MAY | 07:30 | 18:00 |
| JUN | 07:30 | 18:00 |
| JUL | 07:30 | 18:00 |
| AUG | 07:30 | 17:30 |
| SEP | 07:30 | 16:00 |
| OCT | 10:00 | 14:30 |
| NOV | 10:30 | 12:00 |
| DEC | 10:30 | 12:00 |

TRINITY CREEK CAMP
(91.6 mi RR, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 08:00 | 12:00 |
| FEB | 08:00 | 15:00 |
| MAR | 08:00 | 17:00 |
| APR | 08:00 | 17:00 |
| MAY | 08:00 | 16:30 |
| JUN | 08:00 | 16:30 |
| JUL | 08:00 | 16:30 |
| AUG | 08:00 | 17:00 |
| SEP | 08:00 | 17:00 |
| OCT | 08:00 | 15:00 |
| NOV | 08:00 | 12:30 |
| DEC | 08:00 | 11:00* |

(*0.5 hr break 0900-0930)

103 MI RR CAMP
(main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 10:00 | 14:30 |
| FEB | 09:30 | 15:00 |
| MAR | 09:00 | 15:00 |
| APR | 09:00 | 15:00 |
| MAY | 08:30 | 15:30 |
| JUN | 08:30 | 15:30 |
| JUL | 08:30 | 15:30 |
| AUG | 08:30 | 15:30 |
| SEP | 09:00 | 15:00 |
| OCT | 09:30 | 15:00 |
| NOV | 10:00 | 14:30 |
| DEC | 10:00 | 14:30 |

110 MI RR CAMP
(109.4 mi RR, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 08:00 | 15:00 |
| FEB | 08:00 | 16:00 |
| MAR | 08:00 | 17:30 |
| APR | 08:00 | 17:30 |
| MAY | 08:00 | 17:30 |
| JUN | 08:00 | 17:30 |
| JUL | 08:00 | 17:30 |
| AUG | 08:00 | 17:30 |
| SEP | 08:00 | 17:30 |
| OCT | 08:00 | 16:30 |
| NOV | 08:00 | 15:30 |
| DEC | 08:00 | 14:30 |

LOWER GARNET
(114.1 mi RR, kitchen)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 10:00 | 14:30 |
| FEB | 09:30 | 14:30 |
| MAR | 09:00 | 14:30 |
| APR | 08:30 | 15:00 |
| MAY | 08:30 | 15:30 |
| JUN | 08:30 | 15:30 |
| JUL | 08:30 | 15:30 |
| AUG | 08:00 | 15:00 |
| SEP | 08:30 | 14:30 |
| OCT | 09:30 | 14:30 |
| NOV | 10:00 | 14:30 |
| DEC | 10:30 | 14:30 |

ROSS WHEELER CAMP
(107.8 mi RL, aka:Upper Bass)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 09:00 | 13:30 |
| FEB | 08:30 | 14:00 |
| MAR | 08:00 | 14:30 |
| APR | 07:00 | 15:00 |
| MAY | 06:30 | 15:30 |
| JUN | 06:30 | 15:30 |
| JUL | 06:30 | 15:30 |
| AUG | 07:00 | 15:00 |
| SEP | 07:30 | 14:30 |
| OCT | 08:30 | 14:00 |
| NOV | 09:00 | 13:30 |
| DEC | 09:30 | 13:30 |

LOWER BASS CAMP
(108.2 mi RR, main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 08:30 | 14:30 |
| FEB | 07:30 | 16:30 |
| MAR | 07:30 | 17:00 |
| APR | 07:00 | 17:00 |
| MAY | 07:00 | 17:00 |
| JUN | 07:00 | 17:00 |
| JUL | 07:00 | 17:00 |
| AUG | 07:00 | 17:00 |
| SEP | 07:30 | 17:00 |
| OCT | 07:30 | 16:30 |
| NOV | 08:30 | 14:30 |
| DEC | 08:30 | 14:30 |

ELVES CHASM
(116.6 mi RL, lower area)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|-------------------|---------------|
| JAN | (no direct light) | |
| FEB | (no direct light) | |
| MAR | 14:30 | 15:00 |
| APR | 13:00 | 15:00 |
| MAY | 11:30 | 15:00 |
| JUN | 11:30 | 14:30 |
| JUL | 11:30 | 14:30 |
| AUG | 12:30 | 15:00 |
| SEP | 14:00 | 14:30 |
| OCT | (no direct light) | |
| NOV | (no direct light) | |
| DEC | (no direct light) | |

118 MI RR CAMP
(main camp)

| <u>Month</u> | <u>Sunrise</u> | <u>Sunset</u> |
|--------------|----------------|---------------|
| JAN | 10:30 | 14:00 |
| FEB | 10:30 | 14:30 |
| MAR | 10:00 | 14:30 |
| APR | 10:00 | 16:30 |
| MAY | 10:00 | 16:00 |
| JUN | 10:00 | 16:00 |
| JUL | 10:00 | 16:00 |
| AUG | 10:00 | 15:30 |
| SEP | 10:00 | 15:00 |
| OCT | 10:00 | 14:30 |
| NOV | 10:30 | 14:00 |
| DEC | 10:30 | 14:00 |