

Acknowledgements

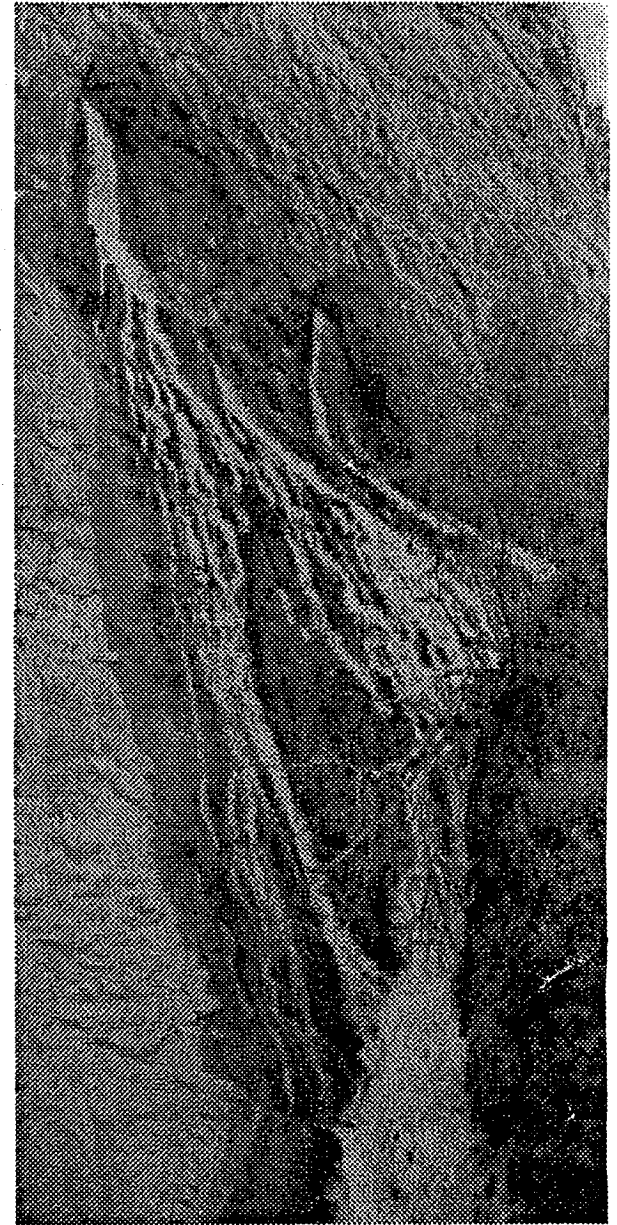
This booklet would not be possible without the generous help, guidance, and patience of many volunteers, scientists, and river guides that assisted me in the collection of this information.

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

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Solar Pathfinder, 196 Moore Road, Iron City, TN 38463

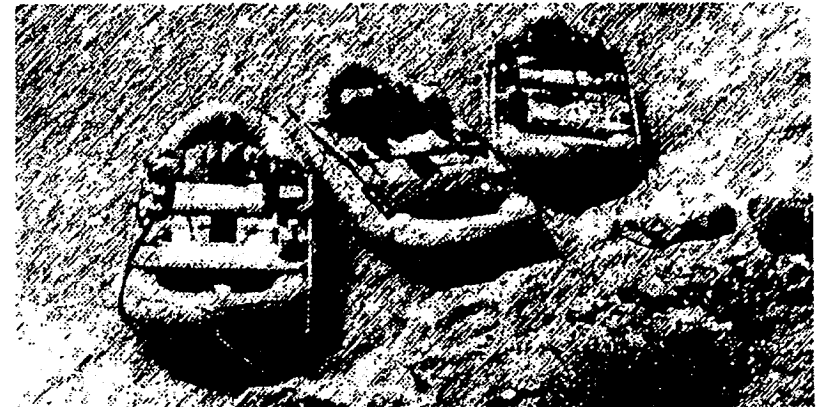
This booklet is dedicated to the men & women working in Grand Canyon as boatmen of the Colorado River. Your knowledge, spirit, & love of the Canyon inspires others that visit this remarkable place. Thank you!

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)

Month	Sunrise	Sunset
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)

Month	Sunrise	Sunset
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)

Month	Sunrise	Sunset
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)

Month	Sunrise	Sunset
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)

Month	Sunrise	Sunset
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)

Month	Sunrise	Sunset
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)

Month	Sunrise	Sunset
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)

Month	Sunrise	Sunset
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

(*2 hr break 1200-1400)

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***

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

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

(*0.5 hr break 1130-1200)

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)	

(*0.5 hr break 0900-0930)
(**2 hr break 1000-1200)

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

(*0.5 hr break 1000-1030)

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

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)	

(*5 hr break 0930-1430)
(**0.5 hr break 1200-1230)
(***3.5 hr break 1030-1400)

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