

## Great Plains Interagency Dispatch Center Forms

## Local Forms

- Exhibit 1: Resource Order (ROSS Version)
- Exhibit 2: FireCode System Request
- Exhibit 3: Prescribed Fire / Pile Burning Report
- Exhibit 4: Great Plains Dispatch Incident Report
- Exhibit 5: Fire Weather Spot Forecast Request
- Exhibit 6: Service and Supplies Authorization Sheet
- Exhibit 7: Call Signs
- Exhibit 8: South Dakota Fire Departments
- Exhibit 9: South Dakota County Identifiers
- Exhibit 10: Unit Identifiers
- Exhibit 12: Sunrise Sunset Tables, 2017

## GACC and National Forms

- Exhibit 13: Mobile Food & Shower Service Request Form
  - Exhibit 14: Passenger and Cargo Manifest Form
  - Exhibit 15: Minimum Crew Standards for Mobilization
  - Exhibit 16: Aircraft Flight Request/Schedule Form
  - Exhibit 17: Great Plains Aircraft Dispatch Form
  - Exhibit 18: Rocky Mountain Aircraft Dispatch Form
  - Exhibit 19: Hazard Analysis and Dispatch/Aviation Manager Checklist
  - Exhibit 20: Infrared Aircraft Scanner Request Form
  - Exhibit 21: FAA Temporary Tower Request
  - Exhibit 22: Preparedness/Detail Request Form
  - Exhibit 23: Incident Status Summary (ICS-209) Form
  - Exhibit 25: Wildland Fire Entrapment/Fatality Initial Report Form
  - Exhibit 26: Documentation of Length of Assignment Extension Requirements Form
  - Exhibit 27: OF-288 Incident Time Report
- <http://www.gsa.gov/portal/forms/download/242971>



## FIRECODE SYSTEM

\* FireCode: \_\_\_\_\_

Discovery Date: \_\_\_\_\_

Discovery Time: \_\_\_\_\_

Incident Name: \_\_\_\_\_

Host Unit Id: \_\_\_\_\_

Latitude: Degrees \_\_\_\_\_ Minutes \_\_\_\_\_

Longitude: Degrees \_\_\_\_\_ Minutes \_\_\_\_\_

\* Incident Order Number: \_\_\_\_\_

Multi-Jurisdictional: Yes \_\_\_\_\_ No \_\_\_\_\_

Reimbursable/Billable: Yes \_\_\_\_\_ No \_\_\_\_\_

Wildland Fireuse: Yes \_\_\_\_\_ No \_\_\_\_\_

Complex: Yes \_\_\_\_\_ No \_\_\_\_\_

Specific Agency Codes: \_\_\_\_\_

**\* FireCode and Incident order number will be issued  
by Northern Great Plains Dispatch Center**

### EXHIBIT 2: FireCode System Request

<p><b>Great Plains Interagency Dispatch Center</b>                  Phone: 605-399-3160 FAX: 605-343-5075                  Prescribed / Pile Burning Fire Report Form</p>				
<b>Name Of Project (Baker RX)</b>	<b>Your Agency (USFS)</b>	<b>State (SD)</b>	<b>Unit Name (SD-BKF)</b>	
<b>Planned Start Date</b>	<b>Number Of Days</b>	<b>Acres</b>	<b>Strategy / Fuel Type</b>	
<b>VOR (Provided by Dispatch)</b>	<b>Legal (Township, Range, Section)</b>	<b>Lat / Long (in Degree, Min, Sec)</b>		
<b>Remarks:</b>				
<b>Submitted by (Your Name):</b>		<b>Phone Number:</b>		<b>Report Date:</b>
Please FAX Or E-Mail to Dispatch at Least 2 Days Before the Planned Start Date.				

**EXHIBIT 3: Prescribed Fire / Pile Burning Report**  
[http://gacc.nifc.gov/rmcc/dispatch\\_centers/r2gpc/forms.htm](http://gacc.nifc.gov/rmcc/dispatch_centers/r2gpc/forms.htm)

GPC Code: \_\_\_\_\_ page \_\_\_\_\_ of \_\_\_\_\_

<b>Great Plains Dispatch Incident Report</b>										<input type="checkbox"/> DB	<input type="checkbox"/> ROSS	<input type="checkbox"/> FireStat	<input type="checkbox"/> SIT	<input type="checkbox"/> WC
Incident #:		Project Order #:				Date/Time:				/				
Incident Name:						Dispatcher:								
Firecode or Project code						Type of Incident								
USFS:				<input type="checkbox"/> WF-Wildland Fire		<input type="checkbox"/> Other								
State:				<input type="checkbox"/> FAL - False Alarm		<input type="checkbox"/> FC - Firecode Request								
Other:				<input type="checkbox"/> CA - County Asst.										
SO#		Ranger#		District#										
<b>Card to be used for wildland fire incidents in conjunction with WildCAD.</b>														
<p>For detailed info see data attached.</p>														
CONFIRM WHEN CALLED CONTROLLED						FIRE STAT INFORMATION								
LEGAL		T	R	SEC	1/4	1/4	DATE		TIME					
							CONTAINED							
CAUSE		L	H	SPECIFIC CAUSE			CONTROLLED							
							OUT							
Final Acres by Ownership:														
<b>Card to be used for wildland fire incidents in conjunction with WildCAD.</b>														

N:\Great Plains Dispatch Center\FORMS\fire\_card.xls 02/10/2009

**EXHIBIT 4: Great Plains Dispatch Incident Report** (card-stock front sheet attach WildCad printout and other documentation).

W'S FORM D-1 U.S. Department of Commerce (1-2005) SPOT REQUEST NOAA (Supersedes Previous Editions) (See reverse for instructions) National Weather Service							
Please call the NWS Weather Forecast Office (WFO) when submitting a request and also after you receive a forecast to ensure request and forecast were received. Please provide feedback to WFO on forecast.							
1. Time†	2. Date	3. Name of Incident or Project			4. Requesting Agency		
5. Requesting Official	6. Phone Number	7. Fax Number			8. Contact Person		
9. Ignition/Incident Time and Date	12. Reason for Spot Request (choose one only) <input type="checkbox"/> Wildfire <input type="checkbox"/> Non-Wildfire Under the Interagency Agreement for Meteorological Services (USFS, BLM, NPS, USFWS, BIA) <input type="checkbox"/> Non-Wildfire State, tribal or local fire agency working in coordination with a federal participant in the Interagency Agreement for Meteorological Services <input type="checkbox"/> Non-Wildfire Essential to public safety, e.g. due to the proximity of population centers or critical infrastructure.				13. Latitude/Longitude:		
10. Size (Acres)					14. Elevation (ft., Mean Sea Level) Top: _____ Bottom: _____		
11. Type of Incident wildfire <input type="checkbox"/> Prescribed Fire <input type="checkbox"/> <del>Wildland</del> Fire Use (WFL) <input type="checkbox"/> HAZMAT <input type="checkbox"/> Search And Rescue (SAR)		15. Drainage			16. Aspect		17. Skeltoning <input type="checkbox"/> Full <input type="checkbox"/> Partial <input type="checkbox"/> Unskeltoned
		18. Fuel Type: Grass Bush Timber Slash Grass/Timber Understory Other _____ Fuel Model: 1,2,3 4,5,6,7 8,9,10 11,12,13					
19. Location and name of nearest weather observing station (distance & direction from project)							
20. Weather Observations from project or nearby station(s): (Winds should be in compass direction e.g. N, NW, etc.)							
Place	Elevation	FOE Time	20 ft. Wind Dir. / Speed	Eye Level Wind Dir. / Speed	Temp. Dry Wet	Moisture RH DP	Remarks (Relevant Weather, etc.)
21. Requested Forecast Period Date Start _____ End _____  Forecast needed for: <input type="checkbox"/> Today <input type="checkbox"/> Tonight <input type="checkbox"/> Day 2 <input type="checkbox"/> Extended			22. Primary Forecast Elements (Check all that are needed) (for management ignited <del>wildland</del> /fires, provide prescription parameters): Needed: Sky/Weather ___ Temperature ___ Humidity ___ 20 ft. Wind ___ Valley ___ Ridge Top ___ Other (Specify in #23) ___			23. Remarks (other needed forecast elements, forecast needed for specific time, etc.)	
24. Send Forecast to: ATTN:			25. Location:			26. Phone Number: Fax Number:	
27. Remarks (Special requests, incident details, Smoke Dispersion elements needed, etc.):							
EXPLANATION OF SYMBOLS: † Use 24-hour clock to indicate time. Example: 10:15 p.m. - 2215; 10:15 a.m. - 1015 Indicate local standard time or local daylight time							

EXHIBIT 5: Fire Weather Spot Forecast Request

**Great Plains Dispatch**  
**Phone 605-399-3160 Fax 605-343-5075**  
**Service and Supply Authorization and Form**

Incident Name: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Incident Number: \_\_\_\_\_ Fire Codes: \_\_\_\_\_

Vendor Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Agreement Number: \_\_\_\_\_ Dispatcher Name: \_\_\_\_\_

R/O, O, C, E #	Crew name or name and position	Number of Meals, Rooms or Items Requested

List cost of meals per agreement or state per diem for each meal

Breakfast: \$ \_\_\_\_\_

Check One:

Lunch: \$ \_\_\_\_\_

\_\_\_\_ Sit Down

Dinner: \$ \_\_\_\_\_

\_\_\_\_ Pick Up

Cost per night / per room: \$ \_\_\_\_\_

\_\_\_\_\_  
 Name and number of card holder or person responsible for payment

\_\_\_\_\_  
 Printed name of driver or responsible party

\_\_\_\_\_  
 Signature of driver or responsible party

\_\_\_\_\_  
 Date

Revised Date 05/27/16

**EXHIBIT 6: Service and Supplies Authorization Sheet**

[http://gacc.nifc.gov/rmcc/dispatch\\_centers/r2gpc/forms.htm](http://gacc.nifc.gov/rmcc/dispatch_centers/r2gpc/forms.htm)

Name	Call Sign	Name	Call Sign
<b>BKF</b>		<b>SDS</b>	
Todd Pechota	CHIEF 1	Jay Esperance	ST CHIEF 1
Jason Virtue	CHIEF 2	Jim Strain	ST CHIEF 2
Amy Ham	BRANCH 3	Jeni Lawver	ST PIO
Lance Spring	HT SUPT 1	Brenda Even	ST FINANCE 1
Corey Lewis	HT CAPT 1	Paul Reiter	ST COMMO 1
Toby Cook	DIV 6	Jim Burk	ST CHIEF 3
Mike Park	BATT 61	Monty Bollock	ST TECH 2
Jeremy Dalman	BATT 62	Logan Brown	ST FUELS 1
Chris Stover	FUELS 6	Brandy Petersen	ST FUELS 2
Tom Roerick	FUELS 61	Evan Kleinpaste	ST FUELS 3
Jared Hohn	DIV 3	Winston Cadotte	ST AIR OPS
Scott Manahan	BATT 31	Cody Griffee	BATT 400
Todd Hoover	BATT 32	Ray Black	BATT 400
Matt Spring	FUELS 3	Steve Esser	DIV 500
Jake Diedtrich	FUELS 31	Jeff Wiedow	BATT 500
Chris Zoller	DIV 1	Ray Bubb	DIV 600
Chris Huhnerkoch	BATT 1	Casey Glines	BATT 600
Brian Rafferty	BATT 11	Chris Blair	DIV 700
Trevor Papenfuss	BATT 8	Mark Menning	BLACK HAT/600 CAPT
Jeff Gies	BATT 81	Donald Henry	BEAR MTN/400 CAPT
Vacant	BATT 82	Tamara Dierks	ST TECH 1
		<b>CSP</b>	
		Jay Wickham	DIV 200
		John Haskvitz	BATT 200
<b>NBF</b>		Vacant	CAPT 200
Vacant	NE-700	Chad Kremer	CAPT 201
Tedd Teahon	NE-701	Tom Miklos	CAPT 202
Weston Burch	NE-702	Rochelle Plocek	CAPT 203
Dalynn Parks	NE-704A	<b>NPS (NE,SD,WY)</b>	
Mike Mattmiller	NE-704B	Eric Allen	NPS-200
Brian Daunt	NE-705	Al Stover	NPS-201
		Mike Carlborn	NPS-206

**EXHIBIT 7: Call Sign**



SOUTH DAKOTA FIRE DEPARTMENTS AND UNIT IDENTIFIERS							
Aberdeen	ABDX	Buffalo Gap	BGDY	Edgemont	EDMX	Hazel	HZLX
Aberdeen Rural	ABRX	Buffalo	BUFY	Egan	EGNX	Hecla	HCLX
Academy	ACMX	Burke	BUKY	Elk Point	EKPX	Henry	HNYX
Agar	AGRX	Camp Crook	CCDY	Elkton	ELKX	Hereford	HERX
Akaska	AKAX	Canistota	CANX	Ellsworth AFB	ELSX	Hermosa	HMDX
Alcester	ALCX	Canova	CAVX	Emery	EMYX	Herreid	HEDX
Alexandria	ALXX	Canton	CNTX	Enning	ENNX	Highlands	HLDX
Alkali	ALKX	Carthage	CARX	Estelline	ESTX	Highmore	HGMX
Alpena	ALPX	Cascade	CADY	Ethan	ENTX	Hill City	HCDX
Andover	ANDX	Castle Rock	CSRX	Eureka	EURX	Hitchcock	HITX
Ardmore	ARDX	Castlewood	CSTX	Fairburn	FBDX	Hosmer	HOSX
Argyle	ARGX	Cavour	CVRX	Fairfax	FRFX	Hot Springs MAC	HSVX
Arlington	ARLX	Centerville	CENX	Fairview	FRVX	Hot Springs VFD	HSDX
Armour Rural	ARRX	Chamberlain	CHMX	Faith	FTHX	Hoven	HOVX
Armour	ARMX	Chancellor	CHAX	Faulkton	FALX	Howard	HOWX
Artesian	ARTX	Chester	CHEX	Fedora	FDOX	Hudson	HUDX
Ash Creek	ASCX	Claire City	CLCX	Flandreau	FLDX	Humbolt	HUMX
Ashton	ASHX	Claremont	CLMX	Florence	FLOX	Hurley	HLRX
Astoria	ASTX	Clark	CLRX	Folsom	FOLX	Huron	HURX
Aurora	AURX	Clear Lake	CLKX	Fort Meade	FTMX	Hutterville	HUTX
Avon	AVNX	Colman	CMNX	Fort Pierre	FTPX	Interior	INTX
Badger	BDGX	Colome	COMX	Fort Thompson	FTTX	Ipswich	IPSX
Baltic	BALX	Colton	COLX	Four Corners	FCRX	Irene	IRNX
Batesland	BTSX	Columbia	CMBX	Frankfort	FRKX	Iroquois	IRQX
Bath	BTHX	Conde	CONX	Fredrick	FRDX	Isabel	ISBX
Bear Ridge	BRRX	Corona	CRNX	Freeman	FREX	Java	JVAX
Belle Fourche	BLFX	Corsica		Gann Valley	GANX	Jefferson	JFFX
Belvidere	BLVX	Cresbard	CBDX	Garden City	GDNX	Johnson Siding	JSDX
Beresford	BRFX	Crooks	CRKX	Garretson	GARX	Kadoka	KDKX
Big Stone City	BSCX	Custer	CUTX	Gary	GRYX	Kennebec	KNBX
Bison	BISX	Dallas	DALX	Gayville	GAVX	Keystone	KSDX
Black Hawk	BHDX	Dante	DANX	Geddes	GEDX	Kimball	KMBX
Blunt	BLTX	Davis	DAVX	Gettysberg	GTYX	Kyle	KYLX
Bonesteel	BNSX	Deadwood	DWDX	Glad Valley	GLDX	Labolt	LABX
Bowdle	BOWX	Deep Creek	DCRX	Glenham	GLNX	Lake Andes	LKAX
Box Elder	BXEX	Dell Rapids	DELX	Goodwin	GDWX	Lake Norden	LKNX
Bradley	BRDX	Delmont	DLMX	Grand River	GRRX	Lake Preston	LKPX
Brandon	BRNX	Desmet	DESX	Green Valley	GRVX	Langford	LANX
Brandt	BRTX	Dewey	DEWX	Gregory	GRGX	Lead	LDDX
Brentford	BNTX	Doland	DLDX	Groton	GROX	Lebanon	LEBX

Bridgewater	BRW X	Dolton	DTNX	Harding	HARX	Lemmon	LEMX
Bristol	BRIX	Doty	DTYX	Harrisburg	HABX	Lennox	LENX
Brookings	BRKX	Draper	DRPX	Harrold	HRRX	Leola	LEOX
Brownsville	BRVX	Dupree	DUPX	Hartford	HTFX	Lesterville	LSVX
Bruce	BRCX	Eagle Butte	EBTX	Hayti	HAYX	Letcher	LETX
Bryant	BRYX	Eden	ENDX	Hayward	HWDX	Lodgepole	LDGX
Long Lake	LLKX	Onaka	ONKX	Roslyn	ROSX	Vermillion	VERX
Long Valley	LNVX	Onida	ONIX	Running Antelope	RANX	Vetal	VETX
Lowry	LOW X	Opal	OPLX	Saint Francis	STFX	Viborg	VIBX
Ludlow	LDLX	Oral	ORLX	Salem	SLMX	Vienna	VINX
Lyons	LYNX	Orient	ORIX	Savoy	SAVX	Vivian	VIVX
Madison	MAD X	Ortley	ORTX	Scenic	SCNX	Volga	VLGX
Marion	MRN X	Parker	PKRX	Scotland	SLDX	Volin	VOLX
Martin	MAR X	Parkston	PRKX	Selby	SLBX	Wagner	WGNX
Marty	MTY X	Peever	PEVX	Seneca	SENX	Wakonda	WAKX
Marvin	MVN X	Philip	PHLX	Sherman	SHMX	Wall	WLLX
McIntosh	MCIX	Pickstown	PICX	Silver City	SCDX	Wallace	WLCX
McLaughlin	MCL X	Piedmont	PMDX	Sinai	SNIX	Wanblee	WNBX
Meadow	MDW X	Pierpont	PPNX	Sioux Falls	SFDX	Warner	WARX
Mellette	MELX	Pierre	PFDX	Sisseton	SISX	Wasta	WSTX
Menno	MMO X	Pierre Rural	PRRX	Smithwick	SMWX	Watertown	WTNX
Midland	MDL X	Pine Ridge	PRDX	Sorum/Reva	SRVX	Waubay	WBYX
Milbank	MLB X	Plankinton	PLKX	South Hand	SHNX	Webster	WEBX
Milesville	MLSX	Platte	PLTX	South Shore	SSHX	Wentworth	WNWX
Miller	MLLX	Pollock	PCKX	Spearfish Canyon	SPCX	Wessington Sprs	WSPX
Minnekahta	MINX	Polo	POLX	Spearfish	SPFX	Wessington	WESX
Mission TWP	MTPX	Prairie City	PRCX	Spencer	SPNX	Whispering Pines	WPDX
Mission	MISX	Presho	PSHX	Split Rock	SRKX	White Lake	WLKX
Mitchell	MITX	Pringle	PRGX	Springfield	SPGX	White River	WRVX
Mobridge	MOB X	Pukwana	PUKX	St Onge	STOX	White	WHTX
Monroe	MON X	Quinn	QNNX	Stickney	STNX	Whitewood	WWDX
Montrose	MTR X	Ralph	RPHX	Stockholm	STHX	Willow Lake	WILX
Morristown	MRSX	Ramona	RAMX	Stratford	STRX	Wilmington	WMTX
Mound City	MCT X	Rapid City	RCFX	Sturgis	STUX	Winfred	WNFX
Mount Vernon	MTV X	Rapid Valley	RVDX	Summit	SUMX	Winner	WNRX

Mud Butte	MBT X	Rania	RAVX	Tabor	TABX	Witten	WITX
Murdo	MUR X	Raymond	RAYX	Tea	TEAX	Wolsey	WOLX
Nemo	NMO X	Red Scaffold	RDSX	Timber Lake	TMBX	Wood	WDDX
New Effington	NEFX	Redfield	RFRX	Tolstoy	TOLX	Woonsocket	WNSX
New Underwood	NVD X	Redfield Hosp	RFHX	Toronto	TNTX	Worthing	WTHX
Newell	NEW X	Redfield	RFDX	Trail City	TRCX	Yankton	YTNX
Nisland	NISX	Redig	RDGX	Trent	TRNX		
Noriss	NOR X	Ree Heights	REEX	Tripp	TRPX		
North Haines	NHD X	Reliance	RELX	Tulare	TULX		
North Marshall	NMH X	Renner	RENX	Turton	TURX		
North Sioux	NSXX	Revilla	REVX	Tuthill	TUTX		
Northville	NVLX	Robbs Flat	RBFX	Tyndall	TYNX		
Nund	NUNX	Rochford	ROFX	Utica	UTCX		
NW Corner	NWC X	Rockerville	RKVX	Vale	VLEX		
Oelrichs	OELX	Roscoe	RSCX	Valley Springs	VSPX		
Oldham	OLDX	Rosholt	RSHX	Veblen	VEBX		

**Exhibit 8: South Dakota Fire Departments**

<b>SOUTH DAKOTA COUNTY IDENTIFIERS</b>					
Aurora	SD-ARX	Fall River	SD-FRX	Marshall	SD-MAX
Beadle	SD-BDX	Faulk	SD-FAX	Meade	SD-MDX
Bennett	SD-BNX	Grant	SD-GTX	Millette	SD-MIX
Bon Homme	SD-BHX	Gregory	SD-GRX	Miner	SD-MNX
Brookings	SD-BKX	Haakon	SD-HAX	Minnehaha	SD-MHX
Brown	SD-BRX	Hamlin	SD-HMX	Moody	SD-MOX
Brule	SD-BUX	Hand	SD-HDX	Pennington	SD-PNX
Buffalo	SD-BFX	Hanson	SD-HNX	Perkins	SD-PEX
Butte	SD-BTX	Harding	SD-HRX	Potter	SD-POX
Campbell	SD-CAX	Hughes	SD-HUX	Roberts	SD-ROX
Charles Mix	SD-CHX	Hutchinson	SD-HTX	Sanborn	SD-SAX
Clark	SD-CLX	Hyde	SD-HYX	Shannon	SD-SHX
Clay	SD-CYX	Jackson	SD-JAX	Spink	SD-SPX
Codington	SD-CDX	Jerauld	SD-JEX	Stanley	SD-STX
Corson	SD-CRX	Jones	SD-JOX	Sully	SD-SUX
Custer	SD-CUX	Kingsbury	SD-KIX	Todd	SD-TOX
Davison	SD-DVX	Lake	SD-LKX	Tripp	SD-TPX
Day	SD-DAX	Lawrence	SD-LAX	Turner	SD-TUX
Deuel	SD-DLX	Lincoln	SD-LIX	Union	SD-UNX
Dewey	SD-DEX	Lyman	SD-LYX	Walworth	SD-WAX
Douglas	SD-DOX	McCook	SD-MCX	Yankton	SD-YAX
Edmunds	SD-EDX	McPherson	SD-MPX	Ziebach	SD-ZBX

**EXHIBIT 9: SOUTH DAKOTA COUNTY IDENTIFIERS**

<b>Bureau of Indian Affairs</b>		<b>US Forest Service</b>	
Standing Rock Agency	ND-SRA	Black Hills NF	SD-BKF
Winnebago Agency	NE-WBA	Nebraska NF	NE-NBF
Crow Creek Agency	SD-CCA	<b>South Dakota State WLF</b>	
Cheyenne River Agency	SD-CRA	South Dakota	SD-SDS
Lower Brule Agency	SD-LBA	<b>Wyoming Counties</b>	
Pine Ridge Agency	SD-PRA	Crook Co	WY-CRX
Rosebud Agency	SD-RBA	Weston Co	WY-WEX
Sisseton-Wahpeton Agency	SD-SWA	<b>Nebraska State</b>	
Yankton Agency	SD-YAA	Nebraska	NE-NES
<b>National Park Service</b>		<b>US Geological Survey</b>	
Midwest Regional NPS Hdqtrs	NE-MWP	Nebraska	NE-USGS
NorthernGreatPlains Fire Mgmt	SD-NGP	South Dakota	SD-USGS
Agate Fossil Beds NM	NE-AFP	<b>Bureau of Reclamation</b>	
Homestead NM	NE-HOP	South Dakota	SD-BOR
Niobrara Nat'l Scenic River	NE-NMP	<b>Veterans Administration</b>	
Scotts Bluff NM	NE-SBP	South Dakota	SD-SVAE
Badlands NP	SD-BDP	<b>National Weather Service</b>	
Jewel Cave NM	SD-JCP	Nebraska	NE-WXW
Missouri Nat'l Recreat'l River	SD-MOP	South Dakota	SD-WXW
Mount Rushmore NM	SD-MRP	<b>Department of Energy</b>	
Wind Cave NP	SD-WCP	Nebraska	NE-DOE
Devils Tower NM	WY-DTP	South Dakota	SD-DOE
<b>US Fish &amp; Wildlife Service</b>		<b>Army Corp of Engineers-USACE</b>	
Crescent Lake NWR	NE-CLR	Gavins Point Project	NE-GPE
Fort Niobrara FNR	NE-FNR	Missouri River Project	NE-MRE
North Platte NWR	NE-NPR	Big Bend Project	SD-BBE
Rainwater Basin WMD	NE-RBR	Cold Brook Project	SD-CEE
Valentine NWR	NE-VAR	Cottonwood Project	SD-CWE
Huron WMD	SD-HUR	Fort Randall Project	SD-FRE
Lake Andes NWR	SD-LAR	Oahe Project	SD-OAE
Lacreek NWR	SD-LCR		
Madison WMD	SD-MDR		
Sand Lake NWR	SD-SLR		
Waubay NWR	SD-WAR		

**EXHIBIT 10: Unit Identifiers**

**Exhibit 12:****Sunrise Sunset Tables, 2017**

Time changes 2017: March 12 and Nov 5. Add 1 hour for daylight time when in use.

**Mountain Time zone:** Alliance NE, Buffalo SD, Chadron NE, Hot Springs SD, Lemmon SD, Pine Ridge SD, Rapid City SD, and Spearfish SD.

**Central time zone:** Aberdeen SD, Mobridge SD, Pierre SD and Valentine NE.

Website for Sunrise Sunset tables:

[http://aa.usno.navy.mil/data/docs/RS\\_OneYear.php#forma](http://aa.usno.navy.mil/data/docs/RS_OneYear.php#forma)

Astronomical Applications Dept.
U. S. Naval Observatory
Washington, DC 20392-5420

ABERDEEN, SOUTH DAKOTA
Rise and Set for the Sun for 2017
Central Standard Time

Location: W098 29, N45 28

Table with columns for months (Jan. to Dec.) and rows for days (01 to 31). Each cell contains rise and set times in hours, minutes, and seconds.

Add one hour for daylight time, if and when in use.

Astronomical Applications Dept.  
U. S. Naval Observatory  
Washington, DC 20392-5420

ALLIANCE, NEBRASKA  
Rise and Set for the Sun for 2017  
Mountain Standard Time

Location: W102 52, N42 06

Day	Jan.			Feb.			Mar.			Apr.			May			June			July			Aug.			Sept.			Oct.			Nov.			Dec.		
	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m
01	0720	1631	0704	1707	0626	1742	0534	1818	0457	1851	0418	1921	0420	1931	0445	1910	0517	1825	0549	1732	0625	1645	0701	1621	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
02	0720	1632	0703	1708	0624	1743	0532	1819	0456	1852	0418	1922	0420	1931	0446	1909	0518	1823	0550	1731	0626	1644	0702	1620	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
03	0720	1633	0702	1709	0623	1744	0530	1820	0454	1853	0417	1923	0421	1931	0447	1908	0518	1821	0551	1729	0627	1642	0703	1620	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
04	0720	1634	0701	1711	0621	1746	0529	1821	0453	1854	0417	1924	0421	1930	0448	1906	0520	1820	0552	1727	0630	1641	0704	1620	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
05	0720	1635	0700	1712	0620	1747	0527	1822	0452	1855	0416	1924	0422	1930	0449	1905	0521	1818	0553	1726	0630	1640	0705	1620	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
06	0720	1636	0659	1713	0618	1748	0525	1823	0450	1856	0416	1925	0422	1930	0450	1904	0522	1816	0554	1724	0631	1639	0706	1620	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
07	0720	1637	0657	1714	0616	1749	0523	1824	0450	1857	0416	1925	0423	1929	0451	1903	0523	1814	0555	1722	0632	1638	0706	1620	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
08	0719	1638	0656	1716	0615	1750	0522	1825	0450	1858	0415	1926	0423	1929	0452	1901	0523	1813	0557	1721	0633	1637	0707	1620	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
09	0719	1639	0655	1717	0613	1751	0520	1826	0450	1859	0415	1926	0425	1929	0453	1900	0526	1811	0558	1719	0635	1636	0708	1620	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
10	0719	1640	0654	1718	0611	1753	0519	1828	0450	1860	0415	1927	0426	1928	0454	1859	0527	1809	0559	1717	0636	1635	0709	1620	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
11	0719	1641	0653	1720	0610	1754	0517	1829	0450	1861	0415	1927	0426	1928	0455	1857	0528	1807	0559	1716	0637	1634	0710	1620	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
12	0718	1642	0651	1721	0608	1755	0515	1830	0450	1862	0415	1928	0427	1927	0456	1856	0529	1806	0559	1714	0638	1633	0711	1620	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
13	0718	1643	0650	1722	0606	1756	0514	1831	0450	1863	0415	1928	0428	1927	0457	1854	0530	1804	0602	1712	0640	1632	0712	1620	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
14	0718	1644	0648	1723	0605	1757	0512	1832	0450	1864	0415	1929	0428	1926	0458	1853	0531	1802	0603	1711	0641	1631	0712	1620	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
15	0717	1645	0647	1725	0603	1758	0510	1833	0450	1865	0415	1929	0429	1925	0500	1851	0532	1800	0604	1709	0642	1630	0713	1621	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
16	0717	1647	0646	1726	0601	1800	0509	1834	0450	1866	0415	1930	0430	1925	0501	1850	0533	1759	0606	1708	0643	1629	0714	1621	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
17	0716	1648	0644	1727	0559	1801	0507	1835	0450	1867	0415	1930	0431	1924	0502	1849	0534	1757	0607	1706	0645	1628	0714	1621	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
18	0716	1649	0643	1728	0558	1802	0506	1836	0450	1868	0415	1930	0432	1923	0503	1847	0535	1755	0608	1705	0646	1627	0715	1622	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
19	0715	1650	0641	1730	0556	1803	0504	1838	0450	1869	0415	1931	0433	1923	0504	1846	0536	1753	0609	1703	0647	1627	0716	1622	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
20	0714	1651	0640	1731	0554	1804	0503	1839	0450	1870	0416	1931	0434	1922	0505	1844	0537	1752	0610	1702	0648	1626	0716	1622	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
21	0714	1653	0638	1732	0553	1805	0501	1840	0450	1871	0416	1931	0434	1921	0506	1842	0538	1750	0611	1700	0649	1625	0717	1623	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
22	0713	1654	0637	1733	0551	1806	0500	1841	0450	1872	0416	1931	0435	1920	0507	1841	0539	1748	0613	1659	0651	1625	0717	1624	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
23	0712	1655	0636	1735	0549	1807	0458	1842	0450	1873	0416	1931	0436	1919	0508	1839	0540	1746	0614	1657	0652	1624	0718	1624	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
24	0711	1656	0634	1736	0547	1809	0457	1843	0450	1874	0416	1931	0437	1918	0509	1838	0541	1745	0615	1656	0653	1623	0718	1624	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
25	0711	1658	0632	1737	0546	1810	0455	1844	0450	1875	0416	1931	0438	1917	0510	1836	0542	1743	0616	1654	0654	1623	0718	1625	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
26	0710	1659	0631	1738	0544	1811	0454	1845	0450	1876	0416	1931	0439	1916	0511	1835	0543	1744	0617	1653	0655	1622	0719	1626	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
27	0709	1700	0629	1740	0542	1812	0452	1846	0450	1877	0416	1931	0440	1915	0512	1833	0544	1739	0619	1651	0656	1622	0719	1627	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
28	0708	1701	0628	1741	0540	1813	0451	1848	0450	1878	0416	1931	0441	1914	0513	1831	0545	1738	0620	1650	0657	1622	0719	1628	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
29	0707	1703	0627	1742	0539	1814	0450	1849	0450	1879	0416	1931	0442	1913	0514	1830	0546	1736	0621	1649	0658	1621	0719	1627	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
30	0706	1704	0626	1743	0537	1815	0448	1850	0450	1880	0416	1931	0443	1912	0515	1828	0548	1734	0622	1647	0700	1621	0720	1629	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		
31	0705	1705	0625	1744	0535	1816	0448	1851	0450	1881	0416	1931	0444	1911	0516	1826	0548	1734	0623	1646	0701	1621	0720	1630	0782	1620	0859	1620	1000	1620	1100	1620	1200	1620		

Add one hour for daylight time, if and when in use.



Astronomical Applications Dept.  
U. S. Naval Observatory  
Washington, DC 20392-5420

BUFFALO, SOUTH DAKOTA  
Rise and Set for the Sun for 2017  
Mountain Standard Time

Location: M103 32, M45 35  
C, O, ' ,

Day	Jan.			Feb.			Mar.			Apr.			May			June			July			Aug.			Sept.			Oct.			Nov.			Dec.		
	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m
01	0735	1622	0715	1701	0632	1742	0534	1823	0442	1902	0408	1936	0408	1936	0409	1947	0438	1922	0516	1831	0516	1831	0634	1641	0714	1612	0853	1734	0634	1641	0714	1612				
02	0735	1622	0714	1703	0630	1743	0532	1824	0440	1903	0408	1937	0410	1947	0439	1921	0517	1829	0517	1829	0636	1639	0716	1612	0854	1732	0636	1639	0716	1612						
03	0735	1622	0712	1704	0628	1744	0530	1825	0439	1904	0407	1938	0410	1946	0441	1919	0518	1828	0518	1828	0637	1638	0717	1611	0855	1730	0637	1638	0717	1611						
04	0734	1625	0711	1706	0627	1746	0528	1827	0437	1905	0407	1939	0411	1946	0442	1918	0520	1826	0520	1826	0638	1636	0718	1611	0857	1728	0638	1636	0718	1611						
05	0734	1626	0710	1707	0625	1747	0526	1828	0436	1907	0407	1939	0412	1946	0443	1916	0521	1824	0521	1824	0639	1635	0719	1611	0858	1726	0640	1635	0719	1611						
06	0734	1627	0709	1709	0623	1748	0524	1829	0434	1908	0406	1940	0413	1945	0444	1915	0522	1822	0522	1822	0639	1634	0720	1611	0859	1724	0641	1634	0720	1611						
07	0734	1628	0707	1710	0621	1750	0523	1831	0433	1909	0406	1941	0413	1945	0445	1914	0523	1820	0523	1820	0640	1632	0721	1610	0900	1722	0643	1632	0721	1610						
08	0734	1629	0706	1711	0619	1751	0521	1832	0432	1910	0405	1941	0414	1944	0447	1912	0524	1818	0524	1818	0640	1631	0722	1610	0901	1722	0644	1631	0722	1610						
09	0733	1630	0704	1713	0617	1753	0519	1833	0430	1912	0405	1942	0415	1944	0448	1911	0526	1816	0526	1816	0639	1630	0723	1610	0902	1724	0645	1630	0723	1610						
10	0733	1631	0703	1714	0616	1754	0517	1834	0429	1913	0405	1943	0416	1943	0449	1909	0527	1814	0527	1814	0638	1629	0724	1610	0903	1726	0647	1629	0724	1610						
11	0733	1632	0702	1716	0614	1755	0515	1836	0428	1914	0405	1943	0416	1943	0450	1908	0528	1812	0528	1812	0637	1628	0725	1610	0904	1728	0648	1628	0725	1610						
12	0732	1634	0700	1717	0612	1757	0513	1837	0427	1915	0405	1944	0417	1942	0451	1906	0529	1810	0529	1810	0636	1627	0726	1610	0905	1730	0650	1627	0726	1610						
13	0732	1635	0659	1719	0610	1758	0512	1838	0425	1916	0405	1944	0418	1941	0453	1904	0530	1808	0530	1808	0635	1625	0727	1611	0906	1732	0651	1625	0727	1611						
14	0731	1636	0657	1720	0608	1759	0510	1840	0424	1918	0405	1945	0419	1941	0454	1903	0532	1807	0532	1807	0634	1624	0728	1611	0907	1734	0652	1624	0728	1611						
15	0730	1637	0655	1722	0606	1801	0508	1841	0423	1919	0404	1945	0420	1940	0455	1901	0533	1805	0533	1805	0633	1623	0729	1611	0908	1736	0653	1623	0729	1611						
16	0730	1639	0654	1723	0604	1802	0506	1842	0422	1920	0405	1946	0421	1939	0456	1900	0534	1803	0534	1803	0632	1622	0730	1611	0909	1738	0654	1622	0730	1611						
17	0729	1640	0652	1725	0602	1803	0505	1844	0421	1921	0405	1946	0422	1938	0457	1858	0535	1801	0535	1801	0631	1621	0731	1612	0910	1740	0655	1621	0731	1612						
18	0728	1641	0651	1726	0600	1804	0503	1845	0420	1922	0405	1946	0423	1937	0459	1856	0537	1759	0537	1759	0630	1620	0732	1612	0911	1743	0656	1620	0732	1612						
19	0728	1643	0649	1727	0559	1806	0501	1846	0419	1924	0405	1947	0424	1936	0500	1855	0538	1757	0538	1757	0629	1619	0733	1613	0912	1744	0657	1619	0733	1613						
20	0727	1644	0647	1729	0557	1807	0459	1847	0418	1924	0405	1947	0425	1936	0501	1853	0539	1755	0539	1755	0628	1618	0734	1613	0913	1745	0658	1618	0734	1613						
21	0726	1645	0646	1730	0555	1808	0458	1849	0417	1925	0405	1947	0426	1935	0502	1851	0540	1753	0540	1753	0627	1617	0735	1613	0914	1746	0659	1617	0735	1613						
22	0725	1647	0644	1732	0553	1810	0456	1850	0416	1927	0405	1947	0427	1934	0504	1849	0542	1751	0542	1751	0626	1616	0736	1614	0915	1747	0700	1616	0736	1614						
23	0724	1648	0642	1733	0551	1811	0454	1851	0415	1928	0406	1947	0428	1933	0505	1848	0543	1749	0543	1749	0625	1615	0737	1614	0916	1748	0701	1615	0737	1614						
24	0724	1650	0641	1735	0549	1812	0453	1853	0414	1929	0406	1947	0429	1931	0506	1846	0544	1747	0544	1747	0624	1614	0738	1615	0917	1749	0702	1615	0738	1615						
25	0723	1651	0639	1736	0547	1814	0451	1854	0413	1930	0406	1947	0430	1930	0507	1844	0545	1745	0545	1745	0623	1613	0739	1616	0918	1750	0703	1615	0739	1616						
26	0722	1653	0637	1737	0545	1815	0449	1855	0412	1931	0407	1947	0431	1929	0509	1842	0547	1743	0547	1743	0622	1612	0740	1616	0919	1751	0704	1615	0740	1616						
27	0721	1654	0636	1739	0543	1816	0448	1856	0412	1932	0407	1947	0432	1928	0510	1844	0548	1741	0548	1741	0621	1611	0741	1617	0920	1752	0705	1614	0741	1617						
28	0719	1655	0634	1740	0541	1818	0446	1858	0411	1933	0408	1947	0434	1927	0511	1839	0550	1739	0550	1739	0620	1610	0742	1618	0921	1753	0706	1613	0742	1618						
29	0718	1657	0632	1741	0539	1819	0445	1859	0410	1934	0408	1947	0435	1926	0512	1837	0551	1738	0551	1738	0619	1609	0743	1619	0922	1754	0707	1612	0743	1619						
30	0717	1658	0630	1742	0538	1820	0443	1900	0410	1934	0409	1947	0436	1924	0513	1835	0552	1736	0552	1736	0618	1608	0744	1620	0923	1755	0708	1611	0744	1620						
31	0716	1700	0628	1743	0536	1822	0441	1902	0409	1935	0409	1947	0437	1923	0515	1833	0553	1735	0553	1735	0617	1607	0745	1621	0924	1756	0709	1610	0745	1621						

Add one hour for daylight time, if and when in use.

Astronomical Applications Dept.  
U. S. Naval Observatory  
Washington, DC 20392-5420

CHADRON, NEBRASKA  
Rise and Set for the Sun for 2017  
Mountain Standard Time

Location: W103 00, N42 50

Day	Jan.			Feb.			Mar.			Apr.			May			June			July			Aug.			Sept.			Oct.			Nov.			Dec.														
	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m												
01	0723	1629	0706	1706	0627	1742	0534	1819	0446	1853	0416	1924	0418	1934	0444	1942	0517	1826	0550	1733	0627	1644	0703	1619	0723	1630	0705	1707	0626	1743	0532	1820	0445	1854	0416	1925	0418	1934	0445	1941	0518	1824	0551	1731	0628	1643	0704	1619
02	0723	1630	0707	1706	0626	1743	0532	1820	0444	1854	0415	1925	0418	1934	0445	1941	0518	1824	0552	1729	0629	1641	0705	1618	0723	1631	0704	1708	0624	1744	0530	1821	0443	1855	0415	1926	0419	1934	0446	1940	0519	1822	0552	1729	0629	1641	0705	1618
03	0723	1631	0704	1708	0624	1744	0530	1821	0443	1855	0415	1926	0419	1934	0446	1940	0519	1822	0552	1729	0629	1641	0705	1618	0723	1632	0703	1710	0622	1746	0528	1822	0442	1856	0415	1926	0419	1934	0447	1909	0520	1821	0553	1727	0630	1640	0706	1618
04	0723	1633	0702	1711	0621	1747	0527	1823	0441	1858	0414	1927	0420	1933	0448	1907	0521	1819	0554	1726	0632	1639	0707	1618	0723	1634	0701	1712	0619	1748	0525	1824	0439	1859	0414	1928	0421	1933	0449	1906	0522	1817	0555	1724	0633	1638	0708	1618
05	0723	1635	0659	1713	0617	1749	0523	1825	0438	1900	0414	1928	0421	1933	0450	1905	0523	1815	0556	1722	0634	1637	0709	1618	0723	1636	0658	1715	0616	1750	0522	1827	0437	1901	0414	1929	0422	1932	0451	1903	0525	1814	0558	1721	0636	1636	0710	1618
06	0723	1637	0657	1716	0614	1752	0520	1828	0436	1902	0413	1930	0423	1932	0452	1902	0526	1812	0559	1719	0637	1634	0711	1618	0723	1638	0656	1717	0612	1753	0518	1829	0434	1903	0413	1930	0423	1931	0453	1901	0527	1810	0600	1717	0638	1633	0712	1618
07	0723	1639	0654	1719	0610	1754	0517	1830	0433	1904	0413	1931	0424	1931	0454	1859	0528	1808	0601	1716	0639	1632	0713	1618	0723	1640	0653	1720	0609	1755	0515	1831	0432	1905	0413	1931	0425	1930	0455	1858	0529	1807	0602	1714	0641	1631	0714	1618
08	0721	1641	0652	1721	0607	1756	0513	1832	0431	1906	0413	1932	0426	1930	0456	1856	0530	1805	0603	1712	0642	1630	0714	1618	0720	1643	0650	1723	0605	1758	0512	1834	0430	1907	0413	1932	0427	1929	0458	1855	0531	1803	0605	1711	0643	1629	0715	1618
09	0720	1644	0649	1724	0603	1759	0510	1835	0429	1908	0413	1932	0427	1928	0459	1853	0532	1801	0606	1709	0644	1629	0716	1619	0719	1646	0647	1725	0602	1800	0508	1836	0428	1909	0413	1933	0428	1928	0500	1852	0533	1759	0607	1707	0646	1628	0717	1619
10	0719	1646	0646	1727	0600	1801	0507	1837	0427	1910	0413	1933	0429	1927	0501	1850	0534	1758	0608	1706	0647	1627	0717	1619	0718	1647	0644	1728	0558	1802	0505	1838	0426	1911	0413	1933	0430	1926	0502	1849	0535	1756	0609	1704	0648	1626	0718	1619
11	0717	1649	0643	1728	0558	1802	0504	1839	0425	1912	0413	1934	0431	1925	0503	1847	0536	1754	0611	1703	0649	1625	0719	1620	0716	1650	0641	1731	0553	1805	0502	1840	0424	1913	0413	1934	0432	1924	0504	1846	0537	1752	0612	1701	0651	1625	0719	1621
12	0716	1651	0640	1732	0553	1806	0500	1842	0423	1914	0414	1934	0433	1924	0505	1844	0539	1751	0613	1700	0652	1624	0720	1621	0715	1652	0638	1733	0551	1807	0459	1843	0423	1915	0414	1934	0434	1923	0506	1843	0540	1749	0614	1655	0653	1623	0720	1622
13	0714	1654	0637	1734	0549	1808	0457	1844	0422	1916	0414	1934	0435	1922	0507	1841	0541	1747	0615	1657	0654	1622	0721	1622	0714	1655	0635	1736	0548	1809	0456	1845	0421	1917	0414	1935	0436	1921	0508	1839	0542	1745	0617	1655	0655	1622	0721	1623
14	0713	1656	0634	1737	0546	1810	0454	1846	0420	1918	0415	1935	0437	1920	0509	1838	0543	1743	0618	1654	0657	1621	0721	1623	0711	1658	0632	1738	0544	1812	0453	1847	0419	1920	0416	1935	0438	1919	0511	1836	0544	1742	0619	1652	0658	1621	0722	1624
15	0711	1659	0628	1739	0542	1814	0451	1848	0419	1920	0416	1935	0439	1918	0512	1834	0545	1740	0620	1651	0659	1620	0722	1625	0708	1700	0629	1741	0541	1814	0450	1850	0418	1921	0416	1935	0440	1917	0513	1833	0546	1738	0622	1649	0700	1620	0722	1626
16	0709	1702	0629	1741	0539	1815	0449	1851	0418	1922	0416	1934	0441	1916	0514	1831	0547	1736	0623	1648	0701	1620	0723	1627	0708	1703	0631	1739	0537	1816	0447	1852	0417	1923	0417	1934	0442	1915	0515	1839	0549	1736	0624	1647	0702	1626		
17	0707	1704	0627	1744	0535	1817	0445	1857	0417	1923	0417	1933	0443	1913	0516	1828	0548	1734	0625	1645	0703	1628	0723	1628	0707	1704	0630	1734	0533	1817	0441	1923	0417	1933	0443	1913	0516	1828	0548	1734	0625	1645	0703	1628				

Add one hour for daylight time, if and when in use.

Astronomical Applications Dept.  
U. S. Naval Observatory  
Washington, DC 20392-5420

CUSTER, SOUTH DAKOTA  
Rise and Set for the Sun for 2017  
Mountain Standard Time

Location: W103 35, N43 46

O, O, O, O

Day	Jan.			Feb.			Mar.			Apr.			May			June			July			Aug.			Sept.			Oct.			Nov.			Dec.		
	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m
01	0728	1628	0711	1706	0630	1743	0535	1822	0446	1857	0415	1930	0416	1940	0444	1917	0518	1829	0552	1735	0631	1645	0631	1645	0709	1618										
02	0728	1629	0710	1707	0629	1745	0534	1823	0445	1859	0415	1931	0417	1940	0445	1916	0519	1828	0554	1733	0632	1643	0632	1643	0710	1618										
03	0728	1630	0708	1708	0627	1746	0532	1824	0443	1900	0414	1931	0418	1940	0446	1915	0521	1826	0555	1731	0633	1642	0633	1642	0711	1618										
04	0728	1631	0707	1710	0625	1747	0530	1825	0442	1901	0414	1932	0418	1939	0447	1913	0523	1824	0556	1729	0635	1641	0635	1641	0712	1617										
05	0728	1632	0706	1711	0624	1749	0528	1826	0441	1902	0413	1933	0419	1939	0448	1912	0523	1822	0557	1728	0636	1639	0636	1639	0713	1617										
06	0728	1633	0705	1713	0622	1750	0526	1828	0439	1903	0413	1933	0420	1939	0449	1911	0524	1820	0558	1726	0637	1638	0637	1638	0714	1617										
07	0728	1634	0704	1714	0620	1751	0525	1829	0438	1904	0413	1934	0420	1939	0450	1909	0525	1819	0559	1724	0639	1637	0639	1637	0715	1617										
08	0728	1635	0702	1715	0618	1752	0523	1830	0437	1906	0412	1935	0421	1938	0451	1908	0526	1817	0601	1722	0640	1636	0640	1636	0716	1617										
09	0727	1636	0701	1717	0617	1754	0521	1831	0436	1907	0412	1935	0422	1937	0452	1906	0527	1815	0602	1720	0641	1635	0641	1635	0717	1617										
10	0727	1637	0700	1718	0615	1755	0519	1832	0434	1908	0412	1936	0422	1937	0453	1905	0528	1813	0603	1719	0643	1634	0643	1634	0718	1617										
11	0727	1639	0658	1719	0613	1756	0518	1834	0433	1909	0412	1936	0423	1936	0455	1904	0529	1811	0604	1717	0644	1632	0644	1632	0718	1617										
12	0726	1640	0657	1721	0611	1757	0516	1835	0432	1910	0412	1937	0424	1936	0456	1902	0531	1809	0605	1715	0645	1631	0645	1631	0719	1617										
13	0726	1641	0655	1722	0610	1759	0514	1836	0431	1911	0412	1937	0425	1935	0457	1901	0532	1808	0607	1714	0647	1630	0647	1630	0720	1617										
14	0725	1642	0654	1724	0608	1800	0513	1837	0430	1912	0412	1938	0426	1934	0458	1859	0533	1806	0608	1712	0648	1629	0648	1629	0721	1618										
15	0725	1643	0653	1725	0606	1801	0511	1838	0429	1913	0412	1938	0427	1934	0459	1858	0534	1804	0609	1710	0649	1628	0649	1628	0722	1618										
16	0724	1645	0651	1726	0604	1802	0509	1840	0428	1914	0412	1939	0427	1933	0500	1856	0535	1802	0610	1709	0651	1628	0651	1628	0722	1618										
17	0724	1646	0650	1728	0602	1803	0508	1841	0427	1916	0412	1939	0428	1932	0501	1855	0536	1800	0612	1707	0652	1627	0652	1627	0723	1618										
18	0723	1647	0648	1729	0601	1805	0506	1842	0426	1917	0412	1939	0429	1931	0502	1853	0537	1758	0613	1705	0653	1626	0653	1626	0724	1619										
19	0723	1648	0647	1730	0599	1806	0504	1843	0425	1918	0412	1940	0430	1931	0504	1851	0539	1757	0614	1704	0654	1625	0654	1625	0724	1619										
20	0722	1650	0645	1732	0597	1807	0503	1844	0424	1919	0412	1940	0431	1930	0505	1850	0540	1755	0615	1702	0656	1624	0656	1624	0725	1620										
21	0721	1651	0644	1733	0595	1808	0501	1846	0423	1920	0413	1940	0432	1929	0506	1848	0541	1753	0617	1701	0657	1623	0657	1623	0725	1620										
22	0720	1652	0642	1734	0593	1810	0500	1847	0422	1921	0413	1940	0433	1928	0507	1846	0542	1751	0618	1659	0658	1623	0658	1623	0726	1621										
23	0720	1654	0640	1736	0592	1811	0458	1848	0421	1922	0413	1940	0434	1927	0508	1845	0543	1749	0619	1657	0659	1622	0659	1622	0726	1621										
24	0719	1655	0639	1737	0590	1812	0456	1849	0420	1923	0413	1940	0435	1926	0509	1843	0544	1747	0620	1656	0701	1622	0701	1622	0727	1622										
25	0718	1656	0637	1738	0588	1813	0455	1850	0420	1924	0414	1940	0436	1925	0510	1841	0545	1746	0622	1654	0702	1621	0702	1621	0727	1622										
26	0717	1658	0635	1740	0586	1814	0453	1852	0419	1925	0414	1940	0437	1924	0512	1940	0548	1744	0623	1653	0703	1620	0703	1620	0728	1623										
27	0716	1659	0634	1741	0584	1816	0452	1853	0418	1925	0414	1940	0438	1923	0513	1938	0548	1742	0624	1652	0704	1620	0704	1620	0728	1624										
28	0715	1700	0632	1742	0583	1817	0450	1854	0417	1926	0415	1940	0439	1922	0514	1936	0549	1740	0626	1650	0705	1619	0705	1619	0728	1625										
29	0714	1702	0631	1743	0581	1818	0448	1855	0417	1927	0415	1940	0440	1921	0515	1935	0551	1738	0627	1649	0706	1619	0706	1619	0728	1626										
30	0713	1703	0630	1744	0579	1819	0446	1856	0416	1928	0416	1940	0441	1919	0516	1933	0551	1737	0628	1647	0708	1619	0708	1619	0728	1626										
31	0712	1704	0629	1745	0577	1820	0445	1857	0416	1929	0416	1940	0442	1918	0517	1931	0551	1737	0628	1646	0708	1619	0708	1619	0728	1627										

Add one hour for daylight time, if and when in use.

Astronomical Applications Dept.  
U. S. Naval Observatory  
Washington, DC 20392-5420

GILLETTE, WYOMING  
Rise and Set for the Sun for 2017  
Mountain Standard Time

Location: N405 30, N44 17  
O, O',

Day	Jan.			Feb.			Mar.			Apr.			May			June			July			Aug.			Sept.			Oct.			Nov.			Dec.												
	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m							
01	0738	1634	0720 1712	0639	1731	0543	1830	0453	1906	0421	1939	0422	1950	0450	1926	0525	1938	0600	1742	0640	1651	0719	1624	0738	1635	0718 1714	0637	1732	0541	1831	0451	1908	0421	1940	0423	1949	0451	1945	0526	1836	0601	1740	0641	1650	0719	1624
02	0738	1636	0717 1715	0635	1733	0539	1832	0450	1909	0420	1941	0423	1949	0452	1924	0528	1834	0603	1738	0642	1648	0720	1624	0738	1635	0715 1718	0632	1736	0537	1833	0448	1910	0420	1944	0424	1949	0453	1922	0529	1832	0604	1737	0644	1647	0721	1623
03	0738	1638	0715 1718	0632	1736	0535	1835	0447	1911	0419	1942	0425	1948	0454	1921	0530	1830	0605	1735	0645	1646	0722	1623	0738	1635	0714 1719	0630	1737	0534	1836	0446	1912	0419	1942	0425	1948	0454	1921	0530	1830	0605	1735	0645	1646	0722	1623
04	0737	1639	0714 1719	0628	1737	0531	1837	0444	1913	0419	1944	0426	1948	0458	1918	0532	1827	0607	1731	0648	1643	0724	1623	0737	1640	0712 1721	0628	1738	0532	1837	0444	1914	0426	1948	0458	1918	0532	1827	0607	1731	0648	1643	0724	1623		
05	0737	1641	0711 1722	0626	1800	0530	1838	0443	1915	0418	1944	0427	1947	0458	1917	0533	1825	0609	1729	0649	1642	0725	1623	0737	1642	0710 1723	0625	1801	0528	1839	0442	1916	0418	1945	0427	1947	0459	1915	0535	1823	0610	1728	0650	1641	0726	1623
06	0736	1643	0708 1725	0623	1802	0526	1841	0441	1917	0418	1945	0428	1946	0500	1914	0536	1821	0611	1726	0652	1640	0727	1623	0736	1645	0707 1726	0621	1804	0525	1842	0439	1918	0418	1946	0429	1946	0501	1912	0537	1819	0612	1724	0653	1639	0728	1623
07	0736	1646	0705 1728	0619	1805	0523	1843	0438	1919	0418	1947	0430	1945	0502	1911	0538	1817	0614	1722	0654	1638	0729	1623	0736	1647	0704 1729	0617	1806	0521	1844	0437	1920	0417	1947	0431	1944	0503	1909	0539	1816	0615	1721	0656	1637	0730	1623
08	0735	1648	0703 1730	0616	1807	0520	1846	0436	1921	0417	1947	0432	1944	0504	1908	0540	1814	0616	1719	0657	1636	0730	1623	0735	1649	0701 1732	0614	1809	0518	1847	0435	1923	0417	1948	0432	1943	0506	1906	0541	1812	0617	1717	0658	1635	0731	1624
09	0734	1651	0700 1733	0612	1810	0516	1848	0434	1924	0417	1948	0433	1942	0507	1905	0543	1810	0619	1716	0659	1634	0732	1624	0734	1651	0700 1733	0612	1810	0516	1848	0434	1924	0417	1948	0433	1942	0507	1905	0543	1810	0619	1716	0659	1634	0732	1624
10	0733	1652	0658 1734	0610	1811	0514	1849	0433	1925	0418	1949	0434	1942	0508	1903	0544	1808	0620	1714	0701	1633	0732	1624	0733	1652	0658 1734	0610	1811	0514	1849	0433	1925	0418	1949	0434	1942	0508	1903	0544	1808	0620	1714	0701	1633	0732	1624
11	0732	1653	0657 1736	0608	1812	0513	1851	0432	1926	0418	1949	0436	1940	0509	1902	0545	1806	0621	1712	0702	1632	0733	1625	0732	1653	0657 1736	0606	1814	0511	1852	0431	1927	0418	1949	0436	1940	0510	1900	0546	1804	0622	1711	0703	1631	0734	1625
12	0731	1656	0653 1739	0605	1815	0509	1853	0430	1928	0418	1949	0437	1939	0511	1858	0547	1803	0624	1709	0705	1630	0734	1625	0731	1656	0653 1739	0605	1815	0509	1853	0430	1928	0418	1949	0437	1939	0511	1858	0547	1803	0624	1709	0705	1630	0734	1625
13	0730	1657	0652 1740	0603	1816	0508	1854	0429	1929	0418	1950	0438	1938	0513	1857	0548	1801	0625	1707	0706	1630	0735	1626	0730	1657	0652 1740	0603	1816	0508	1854	0429	1929	0418	1950	0438	1938	0513	1857	0548	1801	0625	1707	0706	1630	0735	1626
14	0729	1658	0650 1741	0601	1817	0506	1855	0428	1930	0418	1950	0439	1937	0514	1855	0550	1759	0626	1706	0707	1629	0735	1626	0729	1658	0650 1741	0601	1817	0506	1855	0428	1930	0418	1950	0439	1937	0514	1855	0550	1759	0626	1706	0707	1629	0735	1626
15	0729	1700	0649 1743	0559	1819	0503	1857	0427	1931	0419	1950	0440	1936	0515	1853	0551	1757	0628	1704	0709	1628	0736	1627	0728	1700	0647 1744	0557	1820	0503	1858	0426	1932	0419	1950	0441	1935	0516	1852	0552	1755	0629	1703	0710	1628	0736	1628
16	0728	1701	0647 1744	0557	1820	0503	1858	0426	1932	0419	1950	0441	1935	0516	1852	0552	1755	0629	1704	0709	1628	0736	1627	0727	1702	0647 1744	0555	1821	0502	1859	0425	1933	0419	1950	0442	1934	0517	1850	0553	1753	0630	1701	0711	1627	0736	1628
17	0726	1704	0644 1747	0554	1822	0500	1900	0424	1935	0420	1950	0443	1932	0518	1848	0550	1751	0632	1700	0712	1626	0737	1629	0725	1705	0642 1748	0552	1824	0458	1901	0424	1935	0420	1950	0443	1932	0520	1846	0555	1750	0633	1638	0713	1626	0737	1629
18	0724	1707	0640 1749	0550	1825	0457	1903	0423	1936	0421	1950	0445	1931	0521	1845	0557	1748	0634	1637	0715	1625	0737	1630	0724	1707	0640 1749	0550	1825	0457	1903	0423	1936	0421	1950	0445	1931	0521	1845	0557	1748	0634	1637	0715	1625	0737	1630
19	0723	1708	0638 1826	0548	1826	0455	1904	0423	1937	0422	1950	0447	1929	0522	1843	0559	1746	0636	1655	0716	1625	0738	1632	0723	1708	0638 1826	0546	1827	0454	1905	0422	1938	0422	1950	0448	1929	0523	1841	0559	1744	0637	1632	0738	1632		
20	0723	1709	0637 1827	0546	1827	0454	1904	0422	1938	0421	1950	0448	1929	0523	1841	0559	1744	0636	1655	0716	1625	0738	1632	0722	1711	0637 1827	0544	1828	0454	1905	0422	1938	0421	1950	0449	1927	0524	1839	0638	1632	0738	1633				

Add one hour for daylight time, if and when in use.

Astronomical Applications Dept.  
U. S. Naval Observatory  
Washington, DC 20392-5420

HOT SPRINGS, SOUTH DAKOTA  
Rise and Set for the Sun for 2017  
Mountain Standard Time

Location: W103 28, N43 26

Day	Jan.			Feb.			Mar.			Apr.			May			June			July			Aug.			Sept.			Oct.			Nov.			Dec.		
	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m
01	0727	1629	0710	1706	0630	1743	0595	1821	0446	1856	0416	1928	0417	1938	0444	1916	0518	1828	0552	1734	0630	1645	0707	1619												
02	0727	1630	0708	1707	0628	1745	0593	1822	0445	1857	0415	1929	0418	1938	0445	1914	0519	1827	0553	1733	0631	1643	0708	1619												
03	0727	1631	0707	1709	0626	1746	0592	1823	0444	1859	0415	1930	0418	1938	0446	1913	0520	1825	0554	1731	0632	1642	0709	1618												
04	0727	1632	0706	1710	0625	1747	0590	1824	0442	1900	0415	1930	0419	1938	0447	1912	0521	1823	0555	1729	0634	1641	0710	1618												
05	0727	1633	0705	1711	0623	1748	0588	1826	0441	1901	0414	1931	0420	1937	0448	1911	0523	1821	0556	1727	0635	1640	0711	1618												
06	0726	1634	0704	1713	0621	1750	0586	1827	0440	1902	0414	1932	0420	1937	0449	1909	0524	1820	0558	1725	0636	1638	0712	1618												
07	0726	1635	0702	1714	0619	1751	0585	1828	0438	1903	0414	1932	0421	1937	0450	1908	0525	1818	0559	1724	0637	1637	0713	1618												
08	0726	1636	0701	1716	0618	1752	0583	1829	0437	1904	0413	1933	0422	1936	0452	1907	0526	1816	0600	1722	0639	1636	0714	1618												
09	0726	1637	0700	1717	0616	1753	0581	1830	0436	1905	0413	1934	0422	1936	0453	1905	0527	1814	0601	1720	0640	1635	0715	1618												
10	0726	1638	0659	1718	0614	1754	0579	1832	0435	1907	0413	1934	0423	1935	0454	1904	0528	1812	0602	1719	0641	1634	0716	1618												
11	0725	1639	0657	1719	0613	1756	0578	1833	0434	1908	0413	1935	0424	1935	0455	1902	0529	1811	0603	1717	0643	1633	0717	1618												
12	0725	1640	0656	1721	0611	1757	0576	1834	0432	1909	0413	1935	0425	1934	0456	1901	0530	1809	0605	1715	0644	1632	0718	1618												
13	0724	1641	0654	1722	0609	1758	0574	1835	0431	1910	0413	1936	0426	1933	0457	1859	0531	1807	0606	1713	0645	1631	0718	1618												
14	0724	1643	0653	1724	0607	1759	0573	1836	0430	1911	0413	1936	0426	1933	0458	1858	0533	1805	0607	1712	0647	1630	0719	1618												
15	0723	1644	0652	1725	0605	1801	0571	1837	0429	1912	0413	1937	0427	1932	0459	1856	0534	1803	0608	1710	0648	1629	0720	1618												
16	0723	1645	0650	1726	0604	1802	0569	1839	0428	1913	0413	1937	0428	1931	0500	1855	0535	1802	0609	1709	0649	1628	0721	1619												
17	0723	1646	0649	1728	0602	1803	0568	1840	0427	1914	0413	1937	0429	1931	0501	1853	0536	1800	0611	1707	0650	1627	0722	1619												
18	0722	1648	0647	1729	0600	1804	0566	1841	0426	1915	0413	1938	0430	1930	0503	1852	0537	1758	0612	1705	0652	1626	0723	1620												
19	0721	1649	0646	1730	0558	1805	0564	1842	0425	1916	0413	1938	0431	1929	0504	1850	0538	1756	0613	1704	0653	1625	0724	1620												
20	0720	1650	0644	1732	0557	1807	0563	1843	0424	1917	0413	1938	0432	1928	0505	1849	0539	1754	0614	1702	0654	1624	0725	1620												
21	0720	1651	0643	1733	0555	1808	0561	1845	0423	1918	0413	1938	0433	1927	0506	1847	0540	1752	0616	1701	0655	1624	0726	1621												
22	0719	1653	0641	1734	0553	1809	0560	1846	0423	1919	0414	1938	0434	1926	0507	1845	0542	1751	0617	1699	0657	1623	0727	1621												
23	0718	1654	0639	1736	0551	1810	0558	1847	0422	1920	0414	1939	0435	1926	0508	1844	0543	1749	0618	1698	0658	1622	0728	1622												
24	0717	1655	0638	1737	0549	1811	0557	1848	0421	1921	0414	1939	0436	1925	0509	1842	0544	1747	0619	1696	0659	1622	0729	1623												
25	0716	1657	0636	1738	0548	1813	0555	1849	0420	1922	0414	1939	0437	1924	0510	1840	0545	1745	0621	1695	0700	1621	0729	1623												
26	0716	1658	0635	1739	0546	1814	0554	1850	0419	1923	0415	1939	0438	1923	0512	1839	0546	1743	0622	1693	0701	1621	0729	1624												
27	0715	1659	0633	1741	0544	1815	0552	1852	0418	1924	0415	1939	0439	1921	0513	1837	0547	1742	0623	1692	0703	1620	0729	1625												
28	0714	1701	0631	1742	0542	1816	0551	1853	0418	1925	0416	1939	0440	1920	0514	1835	0548	1740	0625	1690	0704	1620	0729	1626												
29	0713	1702	0630	1743	0540	1817	0549	1854	0418	1926	0416	1939	0441	1919	0515	1834	0549	1738	0626	1689	0705	1620	0729	1626												
30	0712	1703	0629	1744	0539	1819	0548	1855	0417	1926	0417	1938	0442	1918	0516	1832	0551	1736	0627	1687	0706	1619	0727	1627												
31	0711	1705	0628	1745	0537	1820	0547	1856	0416	1927	0418	1937	0443	1917	0517	1830	0628	1686	0628	1686	0707	1618	0727	1628												

Add one hour for daylight time, if and when in use.

Astronomical Applications Dept.  
U. S. Naval Observatory  
Washington, DC 20392-5420

LEMMON, SOUTH DAKOTA  
Rise and Set for the Sun for 2017  
Mountain Standard Time

Location: W102 10, N45 56

Day	Jan.			Feb.			Mar.			Apr.			May			June			July			Aug.			Sept.			Oct.			Nov.			Dec.		
	h	m	h	h	m	h	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m	h	m
01	0730	1615	0710	1655	0627	1736	0528	1818	0435	1857	0402	1932	0402	1943	0432	1917	0510	1826	0547	1728	0630	1634	0710	1605												
02	0730	1616	0709	1658	0625	1737	0526	1819	0434	1858	0400	1933	0403	1942	0439	1916	0511	1824	0549	1726	0631	1633	0711	1605												
03	0730	1617	0708	1658	0623	1738	0524	1820	0432	1859	0400	1934	0404	1942	0434	1915	0512	1822	0550	1724	0632	1631	0712	1605												
04	0730	1618	0707	1659	0621	1740	0522	1822	0431	1901	0400	1935	0404	1942	0435	1913	0514	1821	0551	1722	0634	1630	0714	1604												
05	0730	1619	0705	1701	0620	1741	0520	1823	0429	1902	0400	1935	0405	1941	0436	1912	0515	1819	0553	1720	0635	1629	0715	1604												
06	0730	1620	0704	1702	0618	1743	0519	1824	0428	1903	0359	1936	0406	1941	0438	1910	0516	1817	0554	1719	0637	1627	0716	1604												
07	0730	1621	0702	1704	0617	1744	0517	1825	0427	1905	0359	1937	0406	1941	0439	1909	0517	1815	0555	1717	0638	1626	0717	1604												
08	0729	1622	0701	1705	0614	1745	0515	1827	0425	1906	0359	1937	0407	1940	0440	1907	0519	1813	0557	1715	0640	1625	0718	1604												
09	0729	1623	0700	1707	0612	1747	0513	1828	0424	1907	0358	1938	0408	1940	0441	1906	0520	1811	0558	1713	0641	1624	0719	1604												
10	0729	1624	0658	1708	0610	1748	0511	1829	0423	1908	0358	1939	0409	1939	0443	1904	0521	1809	0559	1711	0642	1622	0720	1603												
11	0728	1626	0657	1710	0608	1750	0509	1831	0421	1910	0358	1939	0410	1938	0444	1903	0522	1807	0601	1709	0644	1621	0721	1604												
12	0728	1627	0655	1711	0606	1751	0507	1832	0420	1911	0358	1940	0410	1938	0445	1901	0524	1805	0602	1707	0645	1620	0721	1604												
13	0727	1628	0654	1713	0604	1752	0506	1833	0419	1912	0358	1940	0411	1937	0446	1900	0525	1803	0603	1706	0647	1619	0722	1604												
14	0727	1629	0652	1714	0603	1754	0504	1835	0418	1913	0358	1941	0412	1936	0448	1858	0526	1801	0605	1704	0648	1618	0723	1604												
15	0726	1631	0651	1715	0601	1755	0502	1836	0416	1914	0358	1941	0413	1936	0449	1856	0527	1759	0606	1702	0649	1617	0724	1604												
16	0725	1632	0649	1717	0559	1756	0500	1837	0415	1915	0358	1941	0414	1935	0450	1855	0528	1757	0607	1700	0651	1616	0724	1604												
17	0725	1633	0647	1718	0557	1758	0458	1839	0414	1917	0358	1942	0415	1934	0441	1893	0300	1755	0609	1659	0652	1615	0725	1605												
18	0724	1635	0646	1720	0555	1759	0457	1840	0413	1918	0358	1942	0416	1933	0452	1851	0331	1753	0610	1657	0654	1614	0726	1605												
19	0723	1636	0644	1721	0553	1800	0455	1841	0412	1919	0358	1942	0417	1932	0454	1850	0332	1751	0611	1655	0655	1613	0726	1605												
20	0723	1637	0642	1723	0551	1802	0453	1843	0411	1920	0358	1943	0418	1931	0455	1848	0334	1749	0613	1653	0656	1612	0727	1606												
21	0722	1639	0641	1724	0549	1803	0451	1844	0410	1921	0358	1943	0419	1930	0456	1846	0335	1748	0614	1652	0658	1611	0728	1606												
22	0721	1640	0639	1726	0547	1804	0450	1845	0409	1922	0358	1943	0420	1929	0457	1845	0336	1746	0615	1650	0659	1610	0728	1606												
23	0720	1642	0637	1727	0545	1806	0448	1847	0408	1923	0359	1943	0421	1928	0459	1843	0337	1744	0617	1648	0700	1610	0728	1608												
24	0719	1643	0636	1729	0543	1807	0446	1848	0407	1924	0359	1943	0422	1927	0500	1841	0339	1742	0618	1647	0702	1609	0729	1608												
25	0718	1645	0634	1730	0541	1808	0445	1849	0406	1925	0359	1943	0424	1926	0501	1839	0340	1740	0620	1645	0703	1608	0729	1609												
26	0717	1646	0632	1731	0540	1810	0443	1850	0406	1926	0400	1943	0425	1925	0502	1837	0341	1738	0621	1643	0704	1608	0729	1609												
27	0716	1647	0630	1733	0538	1811	0442	1852	0404	1927	0400	1943	0426	1924	0504	1836	0342	1736	0622	1642	0705	1607	0730	1610												
28	0715	1649	0629	1734	0536	1812	0440	1853	0404	1928	0401	1943	0427	1923	0505	1834	0344	1734	0624	1640	0707	1607	0730	1611												
29	0714	1650	0628	1735	0534	1814	0438	1854	0403	1929	0401	1943	0428	1921	0506	1832	0345	1732	0625	1639	0708	1606	0730	1612												
30	0713	1652	0627	1736	0532	1815	0437	1856	0402	1930	0400	1943	0429	1920	0507	1830	0346	1730	0627	1637	0709	1606	0730	1613												
31	0712	1653	0626	1737	0530	1816	0436	1857	0401	1931	0359	1943	0431	1919	0509	1828	0347	1729	0628	1636	0709	1606	0730	1614												

Add one hour for daylight time, if and when in use.

Astronomical Applications Dept.  
U. S. Naval Observatory  
Washington, DC 20392-5420

MORRIDGE, SOUTH DAKOTA  
Rise and Set for the Sun for 2017  
Central Standard Time

Location: W100 26, N45 32

Day	Jan.			Feb.			Mar.			Apr.			May			June			July			Aug.			Sept.			Oct.			Nov.			Dec.							
	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m					
01	0822	1709	0802	1749	0720	1829	0621	1810	0529	1949	0456	2024	0457	2034	0526	2019	0603	1919	0640	1821	0722	1728	0802	1700																	
02	0822	1710	0801	1750	0718	1831	0620	1812	0528	1950	0456	2024	0458	2034	0527	2008	0605	1917	0642	1819	0723	1727	0803	1659																	
03	0822	1711	0800	1752	0716	1832	0618	1813	0526	1952	0455	2025	0458	2034	0528	2007	0606	1915	0643	1818	0725	1725	0804	1659																	
04	0822	1712	0759	1753	0714	1833	0616	1814	0525	1953	0455	2026	0459	2033	0529	2005	0607	1913	0644	1816	0726	1724	0805	1659																	
05	0822	1713	0757	1755	0712	1835	0614	1816	0523	1954	0454	2027	0500	2033	0531	2004	0608	1911	0645	1814	0727	1723	0806	1659																	
06	0821	1714	0756	1756	0710	1836	0612	1817	0522	1955	0454	2027	0500	2033	0532	2003	0610	1909	0647	1812	0729	1721	0807	1658																	
07	0821	1715	0755	1758	0709	1837	0610	1818	0521	1957	0454	2028	0501	2032	0533	2001	0611	1908	0648	1810	0730	1720	0808	1658																	
08	0821	1717	0753	1759	0707	1839	0608	1819	0520	1958	0453	2029	0502	2032	0534	2000	0612	1906	0649	1808	0732	1719	0809	1658																	
09	0821	1718	0752	1801	0705	1840	0606	1821	0518	1959	0453	2029	0503	2031	0535	1958	0613	1904	0651	1806	0733	1718	0810	1658																	
10	0820	1719	0751	1802	0703	1841	0605	1822	0517	2000	0453	2030	0503	2031	0537	1957	0614	1902	0652	1805	0734	1716	0811	1658																	
11	0820	1720	0749	1803	0701	1843	0603	1823	0515	2001	0453	2031	0504	2030	0538	1955	0616	1900	0653	1803	0736	1715	0812	1658																	
12	0819	1721	0748	1805	0659	1844	0601	1825	0514	2003	0452	2031	0505	2029	0539	1953	0617	1858	0655	1801	0737	1714	0813	1658																	
13	0819	1723	0746	1806	0657	1845	0559	1826	0513	2004	0452	2032	0506	2029	0540	1952	0618	1856	0656	1759	0739	1713	0814	1658																	
14	0818	1724	0745	1808	0656	1847	0557	1827	0512	2005	0452	2032	0507	2028	0541	1950	0619	1854	0657	1757	0740	1712	0815	1659																	
15	0818	1725	0743	1809	0654	1848	0556	1828	0511	2006	0452	2033	0508	2027	0544	1947	0622	1852	0658	1756	0741	1711	0815	1659																	
16	0817	1726	0741	1811	0652	1849	0554	1830	0510	2007	0452	2033	0509	2026	0549	1940	0621	1850	0700	1754	0743	1710	0816	1659																	
17	0817	1728	0740	1812	0650	1851	0552	1831	0508	2008	0452	2033	0510	2026	0545	1945	0623	1848	0701	1752	0744	1709	0817	1659																	
18	0816	1729	0738	1814	0648	1852	0550	1832	0507	2010	0452	2034	0511	2025	0546	1944	0624	1846	0703	1750	0745	1708	0817	1700																	
19	0815	1730	0737	1815	0646	1853	0549	1834	0506	2011	0452	2034	0512	2024	0548	1942	0625	1844	0704	1749	0747	1707	0818	1700																	
20	0814	1732	0735	1816	0644	1855	0547	1835	0505	2012	0453	2034	0513	2023	0549	1940	0627	1843	0705	1747	0748	1706	0819	1701																	
21	0814	1733	0733	1818	0642	1856	0545	1836	0504	2013	0453	2034	0514	2022	0550	1939	0628	1841	0707	1745	0749	1706	0819	1701																	
22	0813	1735	0732	1819	0640	1857	0544	1837	0503	2014	0453	2034	0515	2021	0551	1937	0629	1839	0708	1744	0751	1705	0820	1702																	
23	0812	1736	0730	1821	0639	1859	0542	1839	0502	2015	0453	2035	0516	2020	0552	1935	0630	1837	0709	1742	0752	1704	0820	1702																	
24	0811	1737	0728	1822	0637	1900	0540	1840	0502	2016	0454	2035	0517	2019	0554	1933	0632	1835	0711	1740	0753	1703	0820	1703																	
25	0810	1739	0727	1824	0635	1901	0539	1841	0501	2017	0454	2035	0518	2018	0555	1932	0633	1833	0712	1739	0755	1703	0821	1703																	
26	0809	1740	0725	1825	0633	1903	0537	1843	0500	2018	0455	2035	0519	2017	0556	1930	0634	1831	0713	1737	0756	1702	0821	1704																	
27	0808	1742	0723	1826	0631	1904	0536	1844	0459	2019	0455	2035	0520	2016	0557	1928	0635	1829	0715	1736	0757	1702	0821	1705																	
28	0807	1743	0721	1828	0629	1905	0534	1845	0459	2020	0456	2035	0521	2014	0559	1926	0637	1824	0716	1734	0758	1701	0822	1706																	
29	0806	1744	0721	1828	0627	1906	0532	1846	0458	2021	0456	2034	0522	2013	0600	1924	0638	1825	0718	1733	0800	1701	0822	1706																	
30	0805	1746	0720	1829	0625	1908	0531	1848	0457	2022	0456	2034	0524	2012	0601	1923	0639	1823	0719	1731	0801	1700	0822	1707																	
31	0804	1747	0719	1830	0623	1909	0529	1849	0457	2023	0457	2033	0525	2011	0602	1921	0640	1822	0720	1730	0802	1700	0822	1708																	

Add one hour for daylight time, if and when in use.

Astronomical Applications Dept.  
U. S. Naval Observatory  
Washington, DC 20392-5420

PIERRE, SOUTH DAKOTA  
Rise and Set for the Sun for 2017

Central Standard Time

Day	Jan.			Feb.			Mar.			Apr.			May			June			July			Aug.			Sept.			Oct.			Nov.			Dec.				
	Rise	Set	Rise	Rise	Set	Rise	Rise	Set	Rise	Rise	Set	Rise	Rise	Set	Rise	Rise	Set	Rise	Rise	Set	Rise	Rise	Set	Rise	Rise	Set	Rise	Rise	Set	Rise	Rise	Set	Rise	Rise	Set	Rise	Rise	Set
01	0817	1713	0759	1751	0718	1830	0622	1909	0532	1946	0500	2019	0501	2029	0529	2006	0605	1917	0640	1821	0719	1730	0758	1703														
02	0817	1714	0758	1753	0718	1831	0620	1910	0530	1947	0500	2020	0502	2029	0530	2004	0606	1915	0641	1820	0720	1729	0759	1703														
03	0817	1715	0757	1754	0718	1832	0618	1912	0529	1948	0459	2020	0502	2029	0531	2003	0607	1913	0642	1818	0722	1728	0800	1703														
04	0817	1716	0756	1756	0718	1834	0616	1913	0528	1949	0459	2021	0503	2028	0532	2002	0608	1912	0643	1816	0723	1726	0801	1702														
05	0817	1717	0754	1757	0718	1835	0615	1914	0528	1951	0458	2022	0504	2028	0533	2001	0609	1910	0644	1814	0724	1725	0802	1702														
06	0817	1718	0753	1758	0719	1836	0613	1915	0525	1952	0458	2023	0504	2028	0535	1959	0615	1908	0646	1812	0726	1724	0803	1702														
07	0817	1719	0752	1800	0708	1838	0611	1916	0523	1953	0458	2023	0505	2027	0536	1958	0611	1906	0647	1811	0727	1723	0804	1702														
08	0817	1720	0751	1801	0708	1839	0609	1918	0522	1954	0457	2024	0506	2027	0537	1956	0613	1904	0648	1809	0728	1721	0805	1702														
09	0816	1721	0749	1803	0704	1840	0608	1919	0521	1955	0457	2025	0507	2026	0538	1955	0615	1902	0649	1807	0730	1720	0806	1702														
10	0816	1722	0748	1804	0702	1842	0606	1920	0520	1957	0457	2025	0507	2026	0539	1953	0615	1901	0651	1805	0731	1719	0807	1702														
11	0816	1724	0746	1805	0700	1843	0604	1921	0518	1958	0457	2026	0508	2025	0540	1952	0616	1859	0652	1803	0732	1718	0807	1702														
12	0815	1725	0745	1807	0659	1844	0602	1923	0517	1959	0457	2026	0509	2025	0541	1950	0617	1857	0653	1802	0734	1717	0808	1702														
13	0815	1726	0744	1808	0657	1845	0601	1924	0516	2000	0457	2027	0510	2024	0543	1949	0618	1855	0654	1800	0735	1716	0809	1702														
14	0814	1727	0742	1809	0655	1847	0559	1925	0515	2001	0457	2028	0511	2023	0544	1947	0620	1853	0656	1758	0736	1715	0810	1702														
15	0814	1728	0741	1811	0653	1848	0557	1926	0514	2002	0457	2028	0512	2023	0545	1946	0621	1851	0657	1757	0738	1714	0811	1703														
16	0813	1730	0739	1812	0651	1849	0555	1928	0513	2003	0457	2028	0512	2022	0546	1944	0622	1849	0658	1755	0739	1713	0811	1703														
17	0813	1731	0738	1814	0649	1850	0554	1929	0512	2004	0457	2028	0513	2021	0547	1943	0623	1848	0659	1753	0740	1712	0812	1703														
18	0812	1732	0736	1815	0648	1852	0552	1930	0511	2005	0457	2029	0514	2020	0548	1941	0624	1846	0701	1752	0742	1711	0813	1704														
19	0811	1734	0735	1816	0646	1853	0550	1931	0510	2007	0457	2029	0515	2020	0549	1939	0625	1844	0702	1750	0743	1710	0813	1704														
20	0811	1735	0733	1818	0644	1854	0549	1932	0509	2008	0457	2029	0516	2019	0551	1938	0627	1842	0703	1748	0744	1710	0814	1705														
21	0810	1736	0731	1819	0642	1855	0547	1934	0508	2009	0457	2029	0517	2018	0552	1936	0628	1840	0704	1747	0746	1709	0814	1705														
22	0809	1738	0730	1820	0640	1857	0545	1935	0507	2010	0457	2029	0518	2017	0553	1934	0629	1838	0706	1745	0747	1708	0815	1706														
23	0808	1739	0728	1822	0638	1858	0544	1936	0506	2011	0458	2030	0519	2016	0554	1933	0630	1836	0707	1744	0748	1707	0815	1706														
24	0807	1740	0726	1823	0637	1859	0542	1937	0505	2012	0458	2030	0520	2015	0555	1931	0631	1834	0708	1742	0749	1707	0816	1707														
25	0806	1742	0725	1825	0635	1900	0541	1939	0505	2013	0458	2030	0521	2014	0556	1929	0632	1833	0710	1740	0751	1706	0816	1707														
26	0805	1743	0723	1826	0633	1902	0539	1940	0504	2014	0459	2030	0522	2013	0558	1928	0634	1831	0711	1739	0752	1706	0816	1708														
27	0805	1744	0721	1827	0631	1903	0538	1941	0503	2015	0459	2030	0523	2012	0559	1926	0635	1829	0712	1737	0753	1705	0817	1709														
28	0804	1746	0720	1829	0629	1904	0536	1942	0502	2015	0500	2030	0524	2011	0600	1924	0636	1827	0714	1736	0754	1704	0817	1710														
29	0802	1747			0627	1905	0535	1943	0502	2016	0500	2030	0526	2009	0601	1922	0637	1825	0715	1738	0755	1704	0817	1710														
30	0801	1749			0626	1907	0533	1945	0501	2017	0501	2029	0527	2008	0602	1921	0638	1823	0716	1733	0756	1704	0817	1711														
31	0800	1750			0624	1908			0501	2018			0528	2007	0603	1919			0718	1732			0817	1712														

Add one hour for daylight time, if and when in use.



Astronomical Applications Dept.  
U. S. Naval Observatory  
Washington, DC 20392-5420

PINE RIDGE, SOUTH DAKOTA  
Rise and Set for the Sun for 2017  
Mountain Standard Time

Location: W102 33, N43 01

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m
	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise
01	0722 1627	0705 1703	0626 1740	0532 1817	0444 1852	0414 1923	0415 1933	0441 1911	0515 1824	0548 1731	0625 1642	0702 1616
02	0722 1627	0704 1703	0624 1741	0530 1818	0442 1853	0413 1924	0416 1933	0442 1910	0516 1823	0549 1729	0626 1641	0703 1616
03	0722 1628	0703 1706	0622 1742	0528 1819	0441 1854	0413 1924	0416 1933	0444 1909	0517 1821	0550 1727	0628 1639	0704 1616
04	0722 1629	0702 1707	0621 1744	0526 1820	0440 1855	0412 1925	0417 1932	0445 1907	0518 1819	0551 1726	0629 1638	0705 1616
05	0722 1630	0700 1709	0619 1745	0525 1822	0438 1856	0412 1926	0417 1932	0446 1906	0519 1817	0552 1724	0630 1637	0706 1616
06	0721 1631	0659 1710	0617 1746	0523 1823	0437 1857	0412 1927	0418 1932	0447 1905	0520 1816	0554 1722	0632 1636	0707 1615
07	0721 1632	0658 1711	0616 1747	0521 1824	0436 1858	0411 1927	0419 1931	0448 1903	0521 1814	0555 1720	0633 1634	0708 1615
08	0721 1633	0657 1713	0614 1749	0520 1825	0435 1859	0411 1928	0419 1931	0449 1902	0523 1812	0556 1719	0634 1633	0709 1615
09	0721 1635	0655 1714	0612 1750	0518 1826	0433 1901	0411 1928	0420 1930	0450 1901	0524 1810	0557 1717	0635 1632	0710 1615
10	0721 1636	0654 1715	0610 1751	0516 1827	0432 1902	0411 1929	0421 1930	0451 1859	0525 1808	0558 1715	0637 1631	0711 1615
11	0720 1637	0653 1717	0609 1752	0514 1829	0431 1903	0411 1929	0422 1929	0452 1858	0526 1807	0559 1714	0638 1630	0712 1616
12	0720 1638	0651 1718	0607 1753	0513 1830	0430 1904	0410 1930	0422 1929	0453 1856	0527 1805	0601 1712	0639 1629	0713 1616
13	0719 1639	0650 1719	0605 1755	0511 1831	0429 1905	0410 1930	0423 1928	0454 1855	0528 1803	0602 1710	0641 1628	0713 1616
14	0719 1640	0649 1721	0603 1756	0509 1832	0428 1906	0410 1931	0424 1928	0455 1859	0529 1801	0603 1709	0642 1627	0714 1616
15	0719 1641	0647 1722	0602 1757	0508 1833	0427 1907	0410 1931	0425 1927	0456 1852	0530 1800	0604 1707	0643 1626	0715 1616
16	0718 1643	0646 1723	0600 1758	0506 1834	0426 1908	0410 1932	0426 1926	0458 1850	0531 1758	0605 1705	0644 1625	0715 1617
17	0717 1644	0644 1725	0558 1759	0505 1835	0425 1909	0411 1932	0427 1925	0459 1849	0532 1756	0607 1704	0646 1625	0716 1617
18	0717 1645	0643 1726	0556 1801	0503 1837	0424 1910	0411 1932	0428 1925	0500 1847	0533 1754	0608 1702	0647 1624	0717 1617
19	0716 1646	0641 1727	0555 1802	0501 1838	0423 1911	0411 1933	0428 1924	0501 1846	0535 1752	0609 1701	0648 1623	0717 1618
20	0716 1648	0638 1728	0553 1803	0500 1839	0422 1912	0411 1933	0429 1923	0502 1844	0536 1751	0610 1659	0649 1622	0718 1618
21	0715 1649	0638 1730	0551 1804	0458 1840	0421 1913	0411 1933	0430 1922	0503 1843	0537 1749	0611 1657	0651 1621	0718 1619
22	0714 1650	0637 1731	0549 1805	0457 1841	0420 1914	0411 1933	0431 1921	0504 1841	0538 1745	0613 1656	0652 1621	0719 1619
23	0713 1651	0635 1732	0548 1806	0455 1842	0419 1915	0412 1933	0432 1920	0505 1839	0539 1745	0614 1654	0653 1620	0719 1620
24	0713 1653	0634 1734	0546 1808	0454 1844	0419 1916	0412 1933	0433 1920	0506 1838	0540 1743	0615 1653	0654 1620	0720 1620
25	0712 1654	0632 1735	0544 1809	0452 1845	0418 1917	0412 1933	0434 1919	0507 1836	0541 1742	0616 1652	0655 1619	0720 1621
26	0711 1655	0631 1736	0542 1810	0451 1846	0417 1918	0413 1934	0435 1918	0508 1835	0542 1740	0618 1650	0657 1618	0720 1622
27	0710 1657	0629 1737	0541 1811	0449 1847	0416 1919	0413 1934	0436 1917	0510 1833	0543 1738	0619 1649	0658 1618	0721 1622
28	0709 1658	0627 1739	0539 1812	0448 1848	0416 1920	0414 1934	0437 1916	0511 1831	0545 1736	0620 1647	0659 1618	0721 1623
29	0708 1659	0625 1740	0537 1813	0446 1849	0415 1921	0414 1933	0438 1914	0512 1829	0546 1734	0622 1646	0700 1617	0721 1624
30	0707 1701	0623 1741	0535 1815	0445 1851	0415 1921	0415 1933	0439 1913	0513 1828	0547 1733	0623 1645	0701 1617	0721 1625
31	0706 1702	0621 1742	0533 1816	0444 1922	0414 1922	0415 1932	0440 1912	0514 1826	0548 1732	0624 1643	0701 1617	0722 1625

Add one hour for daylight time, if and when in use.

Astronomical Applications Dept.  
U. S. Naval Observatory  
Washington, DC 20392-5420

RAPID CITY, SOUTH DAKOTA  
Rise and Set for the Sun for 2017  
Mountain Standard Time

Location: W103 14, N44 04

Day	Jan.			Feb.			Mar.			Apr.			May			June			July			Aug.			Sept.			Oct.			Nov.			Dec.		
	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m
01	0728	1626	0710	1704	0629	1742	0534	1820	0444	1857	0413	1929	0414	1940	0441	1916	0516	1828	0551	1733	0630	1642	0708	1616												
02	0728	1627	0709	1705	0628	1743	0532	1822	0443	1858	0412	1930	0414	1939	0442	1915	0516	1826	0552	1731	0631	1641	0709	1615												
03	0728	1628	0708	1706	0626	1744	0530	1823	0441	1859	0412	1931	0415	1939	0444	1914	0519	1825	0553	1730	0633	1640	0710	1615												
04	0728	1629	0707	1708	0624	1746	0528	1824	0440	1900	0411	1932	0416	1939	0445	1913	0520	1823	0555	1728	0634	1639	0711	1615												
05	0728	1630	0705	1709	0622	1747	0526	1825	0438	1901	0411	1933	0416	1939	0446	1911	0521	1821	0556	1726	0635	1637	0712	1615												
06	0728	1631	0704	1711	0621	1748	0525	1826	0437	1903	0411	1934	0417	1938	0447	1910	0522	1819	0557	1724	0637	1636	0713	1615												
07	0727	1632	0703	1712	0619	1749	0523	1828	0436	1904	0410	1934	0418	1939	0448	1909	0523	1817	0558	1722	0638	1635	0714	1615												
08	0727	1633	0701	1713	0617	1751	0521	1829	0435	1905	0410	1934	0418	1937	0449	1907	0524	1816	0559	1721	0639	1634	0715	1615												
09	0727	1634	0700	1715	0615	1752	0519	1830	0433	1906	0410	1935	0419	1937	0450	1906	0526	1814	0601	1719	0641	1632	0716	1614												
10	0727	1635	0659	1716	0614	1753	0518	1831	0432	1907	0410	1936	0420	1936	0451	1904	0527	1812	0602	1717	0642	1631	0717	1615												
11	0726	1636	0657	1717	0612	1755	0516	1833	0431	1908	0409	1936	0421	1936	0452	1903	0528	1810	0603	1715	0643	1630	0718	1615												
12	0726	1637	0656	1719	0610	1756	0514	1834	0430	1910	0409	1937	0422	1935	0454	1901	0529	1808	0604	1714	0645	1629	0719	1615												
13	0725	1639	0655	1720	0608	1757	0512	1835	0429	1911	0409	1937	0422	1935	0455	1900	0530	1806	0606	1712	0646	1628	0720	1615												
14	0725	1640	0653	1722	0606	1758	0511	1836	0427	1912	0409	1938	0423	1934	0456	1858	0531	1805	0607	1710	0647	1627	0720	1615												
15	0724	1641	0652	1723	0605	1800	0509	1837	0426	1913	0409	1938	0424	1933	0457	1857	0532	1803	0608	1708	0649	1626	0721	1615												
16	0724	1642	0650	1724	0603	1801	0507	1839	0425	1914	0409	1938	0425	1933	0458	1855	0534	1801	0609	1707	0650	1625	0722	1616												
17	0723	1643	0649	1726	0601	1802	0506	1840	0424	1915	0409	1939	0426	1932	0459	1854	0535	1759	0611	1705	0651	1624	0723	1616												
18	0723	1645	0647	1727	0559	1803	0504	1841	0423	1916	0409	1939	0427	1931	0500	1852	0536	1757	0612	1704	0652	1624	0723	1616												
19	0722	1646	0646	1728	0557	1804	0502	1842	0422	1917	0410	1939	0428	1930	0502	1850	0537	1755	0613	1702	0654	1623	0724	1617												
20	0721	1647	0644	1730	0556	1806	0501	1843	0421	1918	0410	1939	0429	1929	0503	1849	0538	1753	0614	1700	0655	1622	0724	1617												
21	0720	1649	0642	1731	0554	1807	0459	1845	0420	1919	0410	1940	0430	1928	0504	1847	0539	1752	0616	1659	0656	1621	0725	1618												
22	0720	1650	0641	1732	0552	1808	0458	1846	0420	1920	0410	1940	0431	1927	0505	1846	0540	1750	0617	1657	0658	1620	0725	1618												
23	0719	1651	0639	1734	0550	1809	0456	1847	0419	1921	0410	1940	0432	1926	0506	1844	0542	1748	0618	1656	0659	1620	0726	1619												
24	0718	1653	0638	1735	0548	1811	0454	1848	0418	1922	0411	1940	0433	1925	0507	1842	0543	1746	0619	1654	0700	1619	0726	1619												
25	0717	1654	0636	1736	0546	1812	0453	1850	0417	1923	0411	1940	0434	1924	0508	1840	0544	1744	0621	1653	0701	1619	0727	1620												
26	0716	1655	0634	1738	0545	1813	0451	1851	0416	1924	0412	1940	0435	1923	0510	1839	0545	1742	0622	1651	0702	1618	0727	1621												
27	0715	1657	0633	1739	0543	1814	0450	1852	0416	1925	0412	1940	0436	1922	0511	1837	0546	1740	0623	1650	0704	1617	0727	1621												
28	0714	1658	0631	1740	0541	1816	0448	1853	0415	1926	0412	1940	0437	1921	0512	1835	0547	1739	0624	1648	0705	1617	0728	1622												
29	0713	1659	0630	1740	0539	1817	0447	1854	0414	1927	0413	1940	0438	1920	0513	1834	0549	1737	0626	1647	0706	1617	0728	1622												
30	0712	1701	0629	1741	0537	1818	0445	1856	0414	1928	0413	1940	0439	1919	0514	1832	0550	1735	0627	1645	0707	1616	0728	1624												
31	0711	1702			0535	1819			0413	1929		0440	1918	0515	1830				0629	1644																

Add one hour for daylight time, if and when in use.

Astronomical Applications Dept.  
U. S. Naval Observatory  
Washington, DC 20392-5420

SPEARISH, SOUTH DAKOTA  
Rise and Set for the Sun for 2017  
Mountain Standard Time

Location: W103 52, N44 29

Table with columns for months (Jan to Dec) and times (h m). Each month has a sub-header for 'Rise', 'Set', and 'Dec.' with corresponding time values. The table lists 31 days for each month, showing the progression of sunrise and sunset times throughout the year.

Add one hour for daylight time, if and when in use.

Astronomical Applications Dept.  
U. S. Naval Observatory  
Washington, DC 20392-5420

VALENTINE, NEBRASKA  
Rise and Set for the Sun for 2017

Location: W100 33, N42 52

Central Standard Time

Day	Jan.			Feb.			Mar.			Apr.			May			June			July			Aug.			Sept.			Oct.			Nov.			Dec.														
	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m	Rise	Set	h m												
01	0813	1719	0757	1756	0716	1832	0624	1909	0536	1943	0506	2014	0508	2025	0534	2003	0607	1916	0640	1823	0717	1734	0754	1709	0813	1720	0755	1757	0716	1833	0622	1910	0535	1944	0506	2014	0508	2024	0535	2001	0608	1914	0641	1821	0718	1733	0755	1709
02	0813	1721	0754	1758	0714	1835	0620	1911	0533	1946	0505	2016	0509	2024	0536	2000	0609	1913	0642	1819	0719	1732	0756	1708	0813	1722	0753	1800	0713	1836	0619	1912	0532	1947	0505	2017	0509	2024	0537	1959	0611	1911	0643	1818	0721	1730	0757	1708
03	0813	1723	0752	1801	0711	1837	0617	1913	0531	1948	0505	2017	0510	2024	0538	1958	0611	1909	0644	1816	0722	1729	0758	1708	0813	1724	0751	1802	0709	1838	0615	1915	0529	1949	0504	2018	0511	2023	0539	1956	0613	1907	0645	1814	0723	1728	0759	1708
04	0813	1725	0750	1804	0707	1839	0613	1916	0528	1950	0504	2019	0511	2023	0540	1955	0614	1906	0647	1812	0725	1727	0800	1708	0813	1726	0748	1805	0706	1841	0612	1917	0526	1948	0504	2019	0512	2022	0541	1954	0615	1904	0648	1811	0726	1726	0801	1708
05	0812	1727	0747	1806	0704	1842	0610	1918	0526	1952	0503	2020	0513	2022	0542	1952	0616	1902	0649	1809	0727	1725	0801	1708	0812	1728	0746	1808	0702	1843	0608	1919	0525	1953	0503	2020	0513	2021	0543	1951	0617	1900	0650	1807	0728	1724	0802	1708
06	0812	1729	0745	1809	0701	1844	0607	1920	0523	1954	0503	2021	0514	2021	0544	1950	0618	1859	0651	1806	0730	1722	0803	1708	0811	1730	0743	1810	0659	1845	0605	1921	0522	1955	0503	2021	0515	2020	0545	1948	0619	1857	0652	1804	0731	1721	0804	1708
07	0811	1731	0742	1812	0657	1847	0603	1923	0521	1957	0503	2022	0516	2020	0547	1947	0620	1855	0654	1802	0732	1720	0805	1708	0811	1733	0740	1813	0655	1848	0602	1924	0520	1958	0503	2022	0517	2019	0548	1945	0621	1853	0655	1801	0733	1720	0806	1708
08	0810	1734	0739	1814	0654	1849	0600	1925	0519	1959	0503	2023	0517	2019	0549	1944	0622	1851	0656	1759	0735	1719	0806	1709	0810	1735	0738	1815	0652	1850	0558	1926	0518	2000	0503	2023	0518	2019	0550	1942	0623	1850	0657	1758	0736	1718	0807	1709
09	0809	1736	0736	1817	0650	1851	0557	1927	0517	2001	0503	2023	0519	2017	0551	1941	0624	1846	0658	1756	0737	1717	0808	1709	0808	1737	0735	1818	0648	1853	0555	1928	0516	2002	0503	2024	0520	2016	0552	1939	0625	1848	0670	1754	0738	1716	0808	1710
10	0808	1739	0733	1819	0647	1854	0554	1930	0515	2003	0503	2024	0521	2016	0553	1938	0627	1844	0701	1753	0740	1715	0809	1710	0807	1740	0732	1821	0645	1855	0552	1931	0514	2004	0503	2024	0522	2015	0554	1936	0628	1843	0702	1751	0741	1715	0809	1711
11	0806	1741	0730	1822	0643	1856	0551	1932	0513	2005	0504	2024	0523	2014	0555	1934	0629	1841	0703	1750	0742	1714	0810	1711	0806	1743	0729	1823	0641	1857	0549	1933	0513	2006	0504	2025	0524	2013	0556	1933	0630	1839	0704	1748	0743	1713	0810	1712
12	0805	1744	0727	1824	0640	1858	0548	1934	0512	2007	0504	2025	0525	2012	0557	1931	0631	1837	0706	1747	0745	1713	0811	1712	0804	1745	0726	1826	0638	1905	0546	1935	0511	2008	0505	2025	0526	2011	0559	1930	0632	1835	0707	1745	0746	1712	0811	1713
13	0803	1746	0724	1827	0636	1901	0545	1936	0510	2009	0505	2025	0527	2010	0600	1928	0633	1834	0708	1744	0747	1711	0812	1713	0802	1748	0722	1828	0634	1902	0543	1938	0510	2009	0505	2025	0528	2009	0611	1926	0634	1832	0709	1742	0748	1711	0812	1714
14	0802	1749	0721	1830	0633	1903	0542	1939	0509	2010	0506	2025	0529	2008	0602	1925	0635	1830	0711	1741	0749	1710	0812	1715	0801	1752	0720	1829	0634	1904	0540	1940	0508	2011	0506	2025	0530	2007	0603	1943	0636	1826	0712	1740	0750	1710	0813	1716
15	0801	1750	0719	1831	0631	1904	0540	1941	0508	2012	0507	2025	0531	2006	0604	1921	0638	1828	0713	1738	0751	1710	0813	1716	0800	1753	0715	1831	0627	1906	0537	1942	0507	2013	0507	2025	0532	2005	0605	1920	0639	1825	0714	1737	0753	1709	0813	1717
16	0758	1754	0714	1834	0626	1908	0507	1943	0507	2014	0507	2025	0533	2004	0606	1918	0639	1825	0716	1739	0754	1711	0813	1717	0800	1755	0714	1835	0626	1908	0507	1943	0507	2014	0507	2025	0533	2004	0606	1918	0639	1825	0716	1739	0753	1709	0813	1717

Add one hour for daylight time, if and when in use.

**MOBILE FOOD & SHOWER SERVICE REQUEST FORM**

Incident Name: \_\_\_\_\_ Financial Code: \_\_\_\_\_  
Resource Order #: \_\_\_\_\_ Food Service Request E#: \_\_\_\_\_  
Shower Unit Request E#: \_\_\_\_\_

**I. FOOD SERVICE: Requested Date, Time, Meal Types, and Number of Meals**

- 1. Date of first meal: \_\_\_\_\_ Time of first meal: \_\_\_\_\_
- 2. Estimated number for the first three meals:
 

1 <sup>st</sup> meal: _____	<input type="checkbox"/> Hot Breakfast	<input type="checkbox"/> Sack Lunch	<input type="checkbox"/> Dinner
2 <sup>nd</sup> meal: _____	<input type="checkbox"/> Hot Breakfast	<input type="checkbox"/> Sack Lunch	<input type="checkbox"/> Dinner
3 <sup>rd</sup> meal: _____	<input type="checkbox"/> Hot Breakfast	<input type="checkbox"/> Sack Lunch	<input type="checkbox"/> Dinner

This Block for National Interagency Coordination Center Use Only.

Actual agreed upon Date/Time first meals are to be served: Date: \_\_\_\_\_ Time: \_\_\_\_\_  
(Minimum guaranteed payment is based on these estimates, see Section G.2.2):

1 <sup>st</sup> meal: _____	<input type="checkbox"/> Hot Breakfast	<input type="checkbox"/> Sack Lunches	<input type="checkbox"/> Dinner
2 <sup>nd</sup> meal: _____	<input type="checkbox"/> Hot Breakfast	<input type="checkbox"/> Sack Lunches	<input type="checkbox"/> Dinner
3 <sup>rd</sup> meal: _____	<input type="checkbox"/> Hot Breakfast	<input type="checkbox"/> Sack Lunches	<input type="checkbox"/> Dinner

**II. Location**

Reporting location: \_\_\_\_\_  
Contact person at the Incident: \_\_\_\_\_

**III. Additional Information**

Spike Camps: Yes \_\_\_\_\_ No \_\_\_\_\_ Unknown \_\_\_\_\_  
Estimated Duration of Incident \_\_\_\_\_ Estimated Personnel at Peak \_\_\_\_\_  
Dispatch Contact: \_\_\_\_\_ Telephone Number: \_\_\_\_\_

**IV. SHOWER SERVICE: Requested Date and Time Mobile Shower Unit is needed**

Date Requested \_\_\_\_\_ Time Requested \_\_\_\_\_  
Mobile Shower Unit type ordered: Large (12+ stalls) [\_\_\_\_] Small (4-11 stalls) [\_\_\_\_]

This Block for National Interagency Coordination Center Use Only.

Actual agreed upon Date/Time Mobile Shower Unit to be operational: Date: \_\_\_\_\_ Time: \_\_\_\_\_

National Interagency Coordination Center – 208-387-5400

**Exhibit 13: Mobile Food & Shower Service Request Form**

[http://www.nifc.gov/nicc/logistics/coord\\_forms/Food\\_Shower\\_Request\\_Form.pdf](http://www.nifc.gov/nicc/logistics/coord_forms/Food_Shower_Request_Form.pdf)

STANDARD FORM 245 (6-77) Prescribed by USDA FSM 5716 USDA MP9400.51B		<b>PASSENGER AND CARGO MANIFEST</b>				NO. OF PASSENGERS ON THIS PAGE _____		PAGE ____ OF ____	
ORDERING UNIT			PROJECT NAME			PROJECT NO.			
NAME OF CARRIER			MODE OF TRANSPORTATION & ID. NO.			PILOT OR DRIVER			
CHIEF OF PARTY			REPORT TO			IF DELAYED, CONTACT			
DEPARTURE PLACE		ETD	ETA	INTERMEDIATE STOPS PLACE		ETD	ETA	DESTINATION PLACE	
PASSENGER AND OR CARGO NAME			M	F	PASSENGER WEIGHT	CARGO WEIGHT	DUTY ASGMT IF APPLICABLE		HOME UNIT
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
11.									
12.									
13.									
14.									
15.									
16.									
17.									
18.									
19.									
20.									
21.									
22.									
SIGNATURE OF AUTHORIZED REPRESENTATIVE								DATE	

**Exhibit 14: Passenger and Cargo Manifest Form**

United States Department of the Interior Bureau of Land Management <b>AIRCRAFT FLIGHT REQUEST/SCHEDULE</b>			Change #: _____		6. Aircraft Info FAA N#: _____		
1. Initial request information			Billie Code (OAS A/C only): _____		Flight Schedule Pax Seats		
Initial Date/Time: _____ To/From: _____		Cost/Accounting Management Code(s): _____		Make/Model: _____			
Phone Number: _____		Color: _____					
Check one: <input type="checkbox"/> Point-to-Point <input type="checkbox"/> Mission Flight		Desired A/C Type: <input type="checkbox"/> Helicopter <input type="checkbox"/> Airplane					
Mission Objective/Special Needs: _____							
2. Passenger/Cargo Information – Indicate Chief of Party with an asterisk ( * )							
LBS Project Order/Request No. Name/Type of Cargo (last name, initial)		Dept Airt to Dest Airt to		LBS Project Order/Request No. Name/Type of Cargo (last name, initial)		Dept Airt to Dest Airt to Return to	
3. Flight Itinerary (For Mission-Type Flights. Provide Points of Departure/Arrival and Attach Map with Detailed Flight Route and Known Hazards Indicated)							
DEPART WITH No. PAX		DEPART FROM Airport/Place		ENROUTE ETD AID ETE		ARRIVE AT EIA ATA	
Date No. PAX		Lbs		DROP OFF No. PAX		Key Points Drop-Off Points, Refueling Stops, Flight Check-ins, Pickup Points	
4. Flight Following:							Info Relayed To/From
– FAA IFR <input type="checkbox"/> Satellite			5. Method of Resource Tracking:				7. Administrative Type of Payment Document:
– FAA VFR w/ check-in every _____ Minutes to _____ FAA or _____ Agency radio every _____ Minutes			Phone _____ Radio _____ – To Scheduling Dispatcher@ – Prior to Takeoff _____ Each Stop Enroute – Arrival at Destination – To: _____ @ _____ (Phone Number) (Other Office)				– OAS-23 or _____ OAS 2 – FS 6500-122 Other: Route Document To: 9. Close-out Closed by: _____
Frequencies: _____			8. Review (if applicable)				– Hazard Analysis Performed – Dispatch/Aviation Mgr. Checklist – Other:
Date/Time: _____ / _____							/

Exhibit 16: Aircraft Flight Request/Schedule Form

ROCKY MOUNTAIN AREA AIRCRAFT DISPATCH FORM	
INCIDENT NAME:	DATE: TIME: SUNSET+30
INCIDENT ORDER #:	CHARGE CODE:
DESCRIPTIVE LOCATION:	
LATITUDE (Degrees, Decimal Minutes):	LONGITUDE (Degrees, Decimal Minutes):
BEARING (DEG):	DISTANCE (NM): FROM: ELEVATION:
INITIAL POINT (IP) – Fixed Wing (Optional):	
IP LATITUDE:	IP LONGITUDE:
CHECK POINT (CP) – Rotor Wing (Optional):	
CP LATITUDE:	CP LONGITUDE:
FLIGHT FOLLOWING:	F/F FREQUENCY: TONE:
Forest Net	168.6500 110.9
AIR CONTACT:	A/A FREQUENCY:
	SW Zone 2 (Phillip) 119.3750
GROUND CONTACT:	A/G FREQUENCY:
	SD NZ: A/G 35: 167.2250
COMMAND:	
CZ Bear Mtn: RX-170.5500, TX-165.0125, tone-136.5	
HAZARDS/MTR/SUA:	
OTHER AIRCRAFT:	
RELOAD BASE(S):	TFR NOTAM #
DISPATCH CENTER:	Great Plains Dispatch
DISPATCH MAIN PHONE LINE:	605-399-3160
AIRCRAFT DESK:	
FAX:	605-343-5075
DISPATCH EMAIL:	
COMMENTS:	

6/2016 Version

Exhibit 17:)



ROCKY MOUNTAIN AREA AIRCRAFT DISPATCH FORM			
INCIDENT NAME:	DATE:	TIME:	SUNSET+30
INCIDENT ORDER #:	CHARGE CODE:		
DESCRIPTIVE LOCATION:			
LATITUDE (Degrees, Decimal Minutes):	LONGITUDE (Degrees, Decimal Minutes):		
BEARING (DEG):	DISTANCE (NM):	FROM:	ELEVATION:
INITIAL POINT (IP) - DESCRIPTIVE LOCATION (Optional):			
IP LATITUDE:		IP LONGITUDE:	
FLIGHT FOLLOWING:	F/F FREQUENCY:	TONE:	
AIR CONTACT:	A/A FREQUENCY:		
GROUND CONTACT:	A/G FREQUENCY:		
COMMAND:			
HAZARDS/MTR/SUA:			
OTHER AIRCRAFT:			
RELOAD BASE(S):	IFR NOTAM#:		
DISPATCH CENTER:			
DISPATCH MAIN PHONE LINE:			
AIRCRAFT DESK:			
FAX:			
DISPATCH EMAIL:			
COMMENTS:			

4/2016 Version

**Exhibit 18: Rocky Mountain Aircraft Dispatch Form (Knee Board)**

**HAZARD ANALYSIS AND DISPATCH/AVIATION MANAGER CHECKLIST**

<p><b>I. MISSION FLIGHT HAZARD ANALYSIS</b> (fire flights exempt provided a pre-approved plan is in place). The following potential hazards in the area of operations have been checked, have been identified on flight itinerary map, and will be reviewed with Pilot and Chief-of-Party prior to flight:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Military Training Routes (MTRs) or Special-Use Airspace (MOAs, Restricted Areas, etc.)</li> <li><input type="checkbox"/> Areas of high-density air traffic (airports); Commercial or other aircraft</li> <li><input type="checkbox"/> Wires/transmission lines; wires along rivers or streams or across canyons</li> <li><input type="checkbox"/> Weather factors: wind, thunderstorms, etc.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Towers and bridges</li> <li><input type="checkbox"/> Other aerial obstructions:</li> <li><input type="checkbox"/> Pilot flight time/duty day limitations and daylight/darkness factors</li> <li>SUNRISE: _____</li> <li>SUNSET: _____</li> <li><input type="checkbox"/> Limited flight following communications</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> High elevations, temperatures, and weights:</li> <li>MAX LANDING ELEV (MSL): _____</li> <li>MIN. FLIGHT ALTITUDE AGL: _____</li> <li><input type="checkbox"/> Transport of hazardous materials</li> <li><input type="checkbox"/> Other: _____</li> </ul>
<p><b>II. DISPATCHER/AVIATION MANAGEMENT CHECKLIST</b></p>		
<ul style="list-style-type: none"> <li><input type="checkbox"/> Pilot and aircraft carding checked with source list and vendor; carding meets requirements;</li> <li><input type="checkbox"/> OR, Necessary approvals have been obtained for use of uncarded cooperators, military, or other-government agency aircraft and pilots</li> <li><input type="checkbox"/> Check with vendor that an aircraft with sufficient capability to perform mission safety has been scheduled</li> <li><input type="checkbox"/> Qualified Aircraft Chief-of-Party has been assigned to the flight (noted on reverse)</li> <li><input type="checkbox"/> All DOI passengers have received required aircraft safety training;</li> <li><input type="checkbox"/> OR, Aviation manager will present detailed safety briefing prior to departure;</li> <li><input type="checkbox"/> Bureau Aircraft Chief-of-Party will be furnished with a Chief-of-Party/Pilot checklist and is aware of its use</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Means of flight following and resource tracking requirements have been identified</li> <li><input type="checkbox"/> Flight following has been arranged with another unit if flight crosses jurisdictional boundaries and communications cannot be maintained</li> <li><input type="checkbox"/> Flight hazard maps have been supplied to Chief-of-Party for nonfire low-level missions</li> <li><input type="checkbox"/> Procedures for declassification of Military Training Routes and Special-Use Airspace have been taken</li> <li><input type="checkbox"/> Chief-of-Party is aware of PPE requirements.</li> <li><input type="checkbox"/> Cost analysis has been completed and is attached</li> <li><input type="checkbox"/> Other/Remarks:</li> </ul>	
<p><b>III. APPROVALS</b></p>		
<p><b>Note:</b> Reference Handbook 9420 for approval(s) required.</p>		
<p><b>A. MISSION FLIGHT: HAZARD ANALYSIS PERFORMED BY:</b></p> <p style="text-align: center;">_____</p> <p style="text-align: center;"><small>Chief-of-Party Signature</small></p>		
<p><b>B. MISSION FLIGHT: HAZARD ANALYSIS REVIEWED BY:</b></p> <p style="text-align: center;">_____</p> <p style="text-align: center;"><small>Dispatcher Or Aviation Manager Signature Required</small></p>		
<p><b>C. IF NON-FIRE, ONE-TIME (NON-RECURRING), SPECIAL-USE MISSION, SIGNATURE OF LINE MANAGER IS REQUIRED **;</b></p> <p style="text-align: center;">_____</p> <p style="text-align: center;"><small>DATE: _____</small></p>		
<p><b>D. THIS FLIGHT IS APPROVED BY (Authorized Signature):</b></p> <p style="text-align: center;">_____</p> <p style="text-align: center;"><small>DATE: _____</small></p>		
<p><b>** For recurring Special-Use Missions, signature is required on Special-Use Air Safety Plan, and not required here.</b></p>		

**Exhibit 19: Hazard Analysis and Dispatch/Aviation Manager Checklist**

Incident Name:		Date/Time:	
Ordering Unit:		Telephone #:	
Local Dispatch:		Telephone #:	
GACC:		Telephone #:	
National IR Coord:		Telephone #:	(208) 387-5381
		FAX #	
		Cell #	(208) 859-4475
Regional IR Coord:		Telephone #:	( )
		FAX #:	( )
		Cell #	( )
IR Interpreter Ordered:	<input type="checkbox"/> YES	<input type="checkbox"/> NO	Telephone # ( )
IR Interpreter Assigned:			Cell # ( )
Location: Motel			Motel # ( )
Office or ICP			FAX # ( )
SITL Name and Location:		Telephone #:	( )
Incident Elevation (AVG):	Feet	MSL	Approximate Size: Acres
Weather Over The Incident:			
Delivery Point:			Alt. Delivery Pt:
Delivery type:	<input type="checkbox"/> Land Aircraft	<input type="checkbox"/> Air Drop	<input type="checkbox"/> Scanned file (give email address or ftp site in box below)
Delivery time:			
Delivery point weather:			

**Radio Frequencies**

Local admin. Unit	Tx: Mhz	Tone:	Rx: Mhz	Tone:
Alternative Freq	Tx: Mhz	Tone:	Rx: Mhz	Tone:
Air Tactical Group Supervisor	Tx: Mhz	Tone:	Rx: Mhz	Tone:

Incident Location from 2 VORs: (Degrees) (nautical miles)

VOR:		Azimuth:		Distance:	
VOR:		Azimuth:		Distance:	

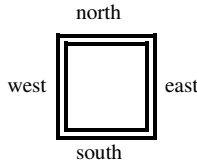
Mission Objective and Description:

---

**LATITUDE/LONGITUDE INFORMATION NEEDED FOR EACH MISSION**

Mapping Block

NORTH		
SOUTH		
EAST		
WEST		



**Exhibit 20: Infrared Aircraft Scanner Request Form**  
**INFRARED AIRCRAFT SCANNER ORDER**

### TEMPORARY TOWER REQUEST FORM

(Note – this form should be used in conjunction with the checklist located in Chapter 11 of the *Interagency Airspace Coordination Guide* ([www.fs.fed.us/r6/fire/aviation/airspace](http://www.fs.fed.us/r6/fire/aviation/airspace)). Please attach this form to the Resource Order and forward both forms to the appropriate FAA Regional Operations Center (ROC) through established ordering channels.

#### I. GENERAL INFORMATION

Incident Name \_\_\_\_\_ Management/Fiscal Code \_\_\_\_\_  
Resource Order Number \_\_\_\_\_ Request Number \_\_\_\_\_ Date \_\_\_\_\_

#### II. POINTS OF CONTACT

	<u>Name / Agency</u>	<u>Telephone</u>
Ordering Unit:	_____	_____
Air Ops / Air Support:	_____	_____
Local or Expanded Dispatch:	_____	_____
Geographic Area Coordination Center:	_____	_____
National Interagency Coordination Center:	_____	_____
FAA POC at ROC:	_____	_____
Airport Owner / Operator:	_____	_____

Has the Airport Owner been notified? YES  NO

Requested Operational Hours: \_\_\_\_\_

Estimated Duration: \_\_\_\_\_

#### III. SUPPORT INFORMATION

Closest City / Town: \_\_\_\_\_ State: \_\_\_\_\_

Proposed Location of Temporary Tower (select one or explain):

- Airport (name and FAA Code) \_\_\_\_\_
- Helibase (physical/legal location) \_\_\_\_\_
- Incident Command Post (physical/legal location) \_\_\_\_\_
- Other \_\_\_\_\_

Is there a facility available on site for use as a "temporary tower"?

- FBO Site/Room rental, etc \_\_\_\_\_
- Rental Trailer \_\_\_\_\_
- Facility to be constructed on site \_\_\_\_\_
- Other \_\_\_\_\_

Expected overnight accommodations:  Fire Camp  Motel/Hotel  Other \_\_\_\_\_

Vehicle Availability:  GOV  Rental  Other (explain) \_\_\_\_\_

Attach detailed driving directions to reporting site (note road closures, hazardous conditions, easiest route of travel and provide detailed map) \_\_\_\_\_

#### IV. EQUIPMENT SURVEY – Refer to Chapter 11 Checklist in *Interagency Airspace Coordination Guide*.

Has equipment inventory been completed?  Yes  No

Equipment (radios, etc) locally available for use by assigned Tower Personnel: \_\_\_\_\_

Equipment to be ordered: \_\_\_\_\_

### Exhibit 21: FAA Temporary Tower Request Form

PREPAREDNESS/DETAIL REQUEST

ATTACHMENT TO RESOURCE ORDER NUMBER: \_\_\_\_\_
REQUEST NUMBER /S/: \_\_\_\_\_

- 1. POSITION(S): \_\_\_\_\_ NUMBER OF PERSONS REQUESTED: \_\_\_\_\_
2. MINIMUM "RED CARD" RATING: \_\_\_\_\_
3. EMPLOYMENT STATUS : [ ] REGULAR FEDERAL AGENCY [ ] A.D. OTHER: \_\_\_\_\_
4. AGENCY UNIFORM: [ ] YES [ ] NO FIRE RESISTANT CLOTHING: [ ] YES [ ] NO
5. DRIVERS LICENSE NEEDED: [ ] YES [ ] NO ENDORSEMENT: \_\_\_\_\_
6. GOVERNMENT VEHICLE: [ ] YES [ ] NO TYPE: \_\_\_\_\_
7. PRIVATE VEHICLES AUTHORIZED: [ ] YES [ ] NO NUMBER: \_\_\_\_\_
8. RADIOS NEEDED: [ ] YES [ ] NO TYPE: \_\_\_\_\_ NUMBER: \_\_\_\_\_
9. REQUESTING UNIT'S ELECTRONIC TECHNICIAN'S NAME: \_\_\_\_\_ TELEPHONE: \_\_\_\_\_
10. LENGTH OF DETAIL: \_\_\_\_\_ THROUGH: \_\_\_\_\_
11. ESTABLISHED WORKWEEK: \_\_\_\_\_ HOURS OF DUTY: \_\_\_\_\_ OVERTIME AUTHORIZED: [ ] YES [ ] NO. AUTHORIZATION NUMBER: \_\_\_\_\_
12. PERSONNEL MAY BE ROTATED: [ ] YES [ ] NO HOW OFTEN: \_\_\_\_\_ ROTATION PAID BY: \_\_\_\_\_
13. BASE SALARY PAID BY: \_\_\_\_\_ TRAVEL PAID BY: \_\_\_\_\_ PER DIEM PAID BY: \_\_\_\_\_
14. EQUIPMENT USE MILEAGE PAID BY: \_\_\_\_\_
15. REQUESTING UNIT'S ELECTRONIC ADDRESS: \_\_\_\_\_
16. REQUESTING UNIT'S ESTIMATED TOTAL COST: \_\_\_\_\_
17. REQUESTING UNIT'S PERSONNEL OFFICER: \_\_\_\_\_ TELEPHONE: \_\_\_\_\_
18. REQUESTING UNIT'S FINANCE OFFICER: \_\_\_\_\_ TELEPHONE: \_\_\_\_\_
19. TEMPORARY DUTY STATION: \_\_\_\_\_ ADDRESS / PO BOX: \_\_\_\_\_ TELEPHONE: \_\_\_\_\_
20. GOVERNMENT LODGING: [ ] YES [ ] NO MESS HALL: [ ] YES [ ] NO. GOVERNMENT COOKING FACILITIES ONLY: [ ] YES [ ] NO COMMERCIAL LODGING: [ ] YES [ ] NO. RATE: \_\_\_\_\_ MEALS: [ ] YES [ ] NO.
21. NEAREST COMMERCIAL AIRLINE CITY: \_\_\_\_\_
22. REMARKS: \_\_\_\_\_

7/22/2004

Exhibit 22: Preparedness/Detail Request Form

## INCIDENT STATUS SUMMARY (ICS 209)

*1. Incident Name:		2. Incident Number:	
*3. Report Version (check one box on left): <input type="checkbox"/> Initial Rpt # <input type="checkbox"/> Update (if used): <input type="checkbox"/> Final		*4. Incident Commander(s) & Agency or Organization:	5. Incident Management Organization:
7. Current Incident Size or Area Involved (use unit label – e.g., "sq mi," "city block"):		8. Percent (%) Contained  Completed	*9. Incident Definition:
		10. Incident Complexity Level:	*6. Incident Start Date/Time: Date: _____ Time: _____ Time Zone: _____
			*11. For Time Period: From Date/Time: _____ To Date/Time: _____

## Approval &amp; Routing Information

*12. Prepared By: Print Name: _____ ICS Position: _____ Date/Time Prepared: _____		*13. Date/Time Submitted:  Time Zone: _____	
*14. Approved By: Print Name: _____ ICS Position: _____ Signature: _____		*15. Primary Location, Organization, or Agency Sent To:	

## Incident Location Information

*16. State:	*17. County/Parish/Borough:	*18. City:
19. Unit or Other:	*20. Incident Jurisdiction:	21. Incident Location Ownership (if different than jurisdiction):
22. Longitude (indicate format): Latitude (indicate format):	23. US National Grid Reference:	24. Legal Description (township, section, range):
*25. Short Location or Area Description (list all affected areas or a reference point):		26. UTM Coordinates:
27. Note any electronic geospatial data included or attached (indicate data format, content, and collection time information and labels):		

## Incident Summary

*28. Significant Events for the Time Period Reported (summarize significant progress made, evacuations, incident growth, etc.):					
29. Primary Materials or Hazards Involved (hazardous chemicals, fuel types, infectious agents, radiation, etc.):					
30. Damage Assessment Information (summarize damage and/or restriction of use or availability to residential or commercial property, natural resources, critical infrastructure and key resources, etc.):		A. Structural Summary	B. # Threatened (72 hrs)	C. # Damaged	D. # Destroyed
		E. Single Residences			
		F. Nonresidential Commercial Property			
		Other Minor Structures			
		Other			
ICS 209, Page 1 of ____		* Required when applicable.			



### INCIDENT STATUS SUMMARY (ICS 209)

*1. Incident Name:	2. Incident Number:
<i>Additional Incident Decision Support Information (continued)</i>	
<p><b>38. Current Incident Threat Summary and Risk Information in 12-, 24-, 48-, and 72-hour timeframes and beyond.</b> Summarize primary incident threats to life, property, communities and community stability, residences, health care facilities, other critical infrastructure and key resources, commercial facilities, natural and environmental resources, cultural resources, and continuity of operations and/or business. Identify corresponding incident-related potential economic or cascading impacts.</p> <p>12 hours:</p> <p>24 hours:</p> <p>48 hours:</p> <p>72 hours:</p> <p>Anticipated after 72 hours:</p>	
<p><b>39. Critical Resource Needs</b> in 12-, 24-, 48-, and 72-hour timeframes and beyond to meet critical incident objectives. List resource category, kind, and/or type, and amount needed, in priority order:</p> <p>12 hours:</p> <p>24 hours:</p> <p>48 hours:</p> <p>72 hours:</p> <p>Anticipated after 72 hours:</p>	
<p><b>40. Strategic Discussion:</b> Explain the relation of overall strategy, constraints, and current available information to:</p> <ol style="list-style-type: none"> <li>1) critical resource needs identified above,</li> <li>2) the Incident Action Plan and management objectives and targets,</li> <li>3) anticipated results.</li> </ol> <p>Explain major problems and concerns such as operational challenges, incident management problems, and social, political, economic, or environmental concerns or impacts.</p>	
41. Planned Actions for Next Operational Period:	
42. Projected Final Incident Size/Area (use unit label – e.g., "sq mi"):	
43. Anticipated Incident Management Completion Date:	
44. Projected Significant Resource Demobilization Start Date:	
45. Estimated Incident Costs to Date:	
46. Projected Final Incident Cost Estimate:	
47. Remarks (or continuation of any blocks above – list block number in notation):	
ICS 209, Page 3 of ____	* Required when applicable.



INCIDENT STATUS SUMMARY (ICS 209)

1. Incident Name: 2. Incident Number:

Incident Resource Commitment Summary

Table with columns for Agency or Organization, Resources (49), Total Personnel (51), and Total Resources (52). Includes a section for Cooperating and Assisting Organizations (53) and a footer for page information.

Exhibit 23: Incident Status Summary (ICS-209) Form



## Wildland Fire Fatality and Entrapment INITIAL REPORT

Complete this report for fire-related entrapment and/or fatalities. Timely reporting of wildland-related entrapments or fatalities is necessary for the rapid dissemination of accurate information to the fire management community. It will also allow fire safety and equipment specialists to quickly respond to these events as appropriate. This initial report does not replace agency reporting or investigative responsibilities, policies, or procedures. Immediately notify the National Interagency Coordination Center (NICC) Coordinator on Duty (COD) by phone, and then submit this written report to NICC within 24 hours—even if some data are missing—to the address given below.

NICC—National Interagency Fire Center  
3833 South Development Ave.  
Boise, ID 83705

Phone: 208-387-5400  
Fax: 208-387-5414  
Coordinator on Duty email: [COD@blm.gov](mailto:COD@blm.gov)

Submitted by: _____	Position: _____
Agency: _____	Location: _____
Phone: _____	E-mail: _____

### 1. General Information

Date of event: \_\_\_\_\_ Time: \_\_\_\_\_

Number of personnel involved: \_\_\_\_\_

Number of Injuries: \_\_\_\_\_ Fatalities: \_\_\_\_\_

Fire name, location, agency, etc.: \_\_\_\_\_

### 2. Fatalities

Type of accident:

- Aircraft     
  Vehicle     
  Natural (lightning, drowning, etc.)     
  Smoke  
 Medical (heart, stroke, heat, etc.)     
  Entrapment     
  Struck by falling object

Where fatality/entrapment occurred:

- Fire site     
  In transit     
  Incident base     
  Other \_\_\_\_\_

**Note: In the event of fatality(s), do not release name(s) until next of kin are notified.**

Employing agency: \_\_\_\_\_

Unit name: \_\_\_\_\_

Address: \_\_\_\_\_

For further information, contact: \_\_\_\_\_

Phone: \_\_\_\_\_

**3. Fire-Related Information**

Fuel Model: \_\_\_\_\_

Incident management type at time of the incident/accident: (check one)

 1    2    3    4    5

Temperature: \_\_\_\_\_ RH: \_\_\_\_\_ Wind: \_\_\_\_\_ Mph \_\_\_\_\_

Topography: \_\_\_\_\_ Urban/wildland intermix?:  Yes    No

Slope: \_\_\_\_\_%

Fire size at the time of the incident/accident: \_\_\_\_\_ acres \_\_\_\_\_

Cause of fire:    Natural    Incendiary    Accidental    Unknown**4. Entrapment Information**

A situation where personnel are unexpectedly caught in a fire-behavior-related, life-threatening position where escape routes or safety zones are absent, inadequate, or have been compromised. An entrapment may or may not include deployment of a fire shelter. Note: Engine and dozer burnovers also constitute entrapments.

Brief **description** of the accident:**Entrapment Description**Person trapped:    With shelter    Without shelterBurns/smoke injuries while in shelter    Yes    NoBurns/smoke injuries while escaping entrapment    Yes    NoBurns/smoke injuries incurred while fighting fire    Yes    NoFire shelter performed satisfactorily    Yes    NoFire shelter was **available**, but not used    Yes    No**Personal Protective Equipment Used**Fire shelter    Yes    NoGloves    Yes    NoProtective pants    Yes    NoBoots    Yes    NoProtective shirt    Yes    NoGoggles    Yes    NoFace/neck protection    Yes    NoHardhat    Yes    No

### Resource Extension Request Form

**RESOURCE and INCIDENT INFORMATION:**

Resource Name: \_\_\_\_\_

Incident Name: \_\_\_\_\_ Incident #: \_\_\_\_\_ Request #: \_\_\_\_\_

Position on Incident: \_\_\_\_\_

Home Unit Supervisor: \_\_\_\_\_ email: \_\_\_\_\_ fax # \_\_\_\_\_

**EXTENSION INFORMATION:**

Prior to any extension consider the health, readiness and capability of the resource. The health and safety of incident personnel and resources will not be compromised under any circumstances.

Length of Extension and last work day:

Justification (Select from the list below):

- Life and property are imminently threatened,
- Suppression objectives are close to being met, or
- Replacement resources are unavailable or have not yet arrived.

**REQUESTED BY\*:**

Incident Supervisor: \_\_\_\_\_ Incident Position: \_\_\_\_\_

**APPROVED BY\*:**

- 1) Resource or Resource Supervisor: \_\_\_\_\_
- 2) Incident Commander or Deputy: \_\_\_\_\_
- 3) Host GACC Coordinator on Duty: \_\_\_\_\_
- 4) Home Unit Supervisor: \_\_\_\_\_
- 5) Sending GACC (excluding single-resource Overhead): \_\_\_\_\_
- 6) NICC (only if National Resource): \_\_\_\_\_

\*Signatures should be gathered in the order they are numbered above

January 2013

### Exhibit 26: Documentation of Length of Assignment Extension Requirements Form

