Today in Joshua Tree National Park

Update Feb 21, 2023

This is a web-based system that was inspired by availability of web-capable TVs in the visitor centers at the park.

The objective was to supply a set of visitor information on a "slide show" type presentation on thee TVs, entirely driven from a web site, so the same information could be displayed at multiple locations with minimal effort.

The system operates by collecting information from many sites, including the weather service, eps air quality, recreation.gov, nps.gov, the sensor at Lost Horse ranger Station, and information entered manually by a ranger here.

The system produces 3 kinds of output:

- A multi-section web page where the sections can be displayed sequentially at 15 second intervals. Designed for display on the visitor center TVs.

- A multi-topic web page that can be printed onto 5 pages with one topic on each page.

- A web page that prints as a single page with all the key information about today. This is intended to be printed at the visitor center and posted at each interp table or on a bulletin board.
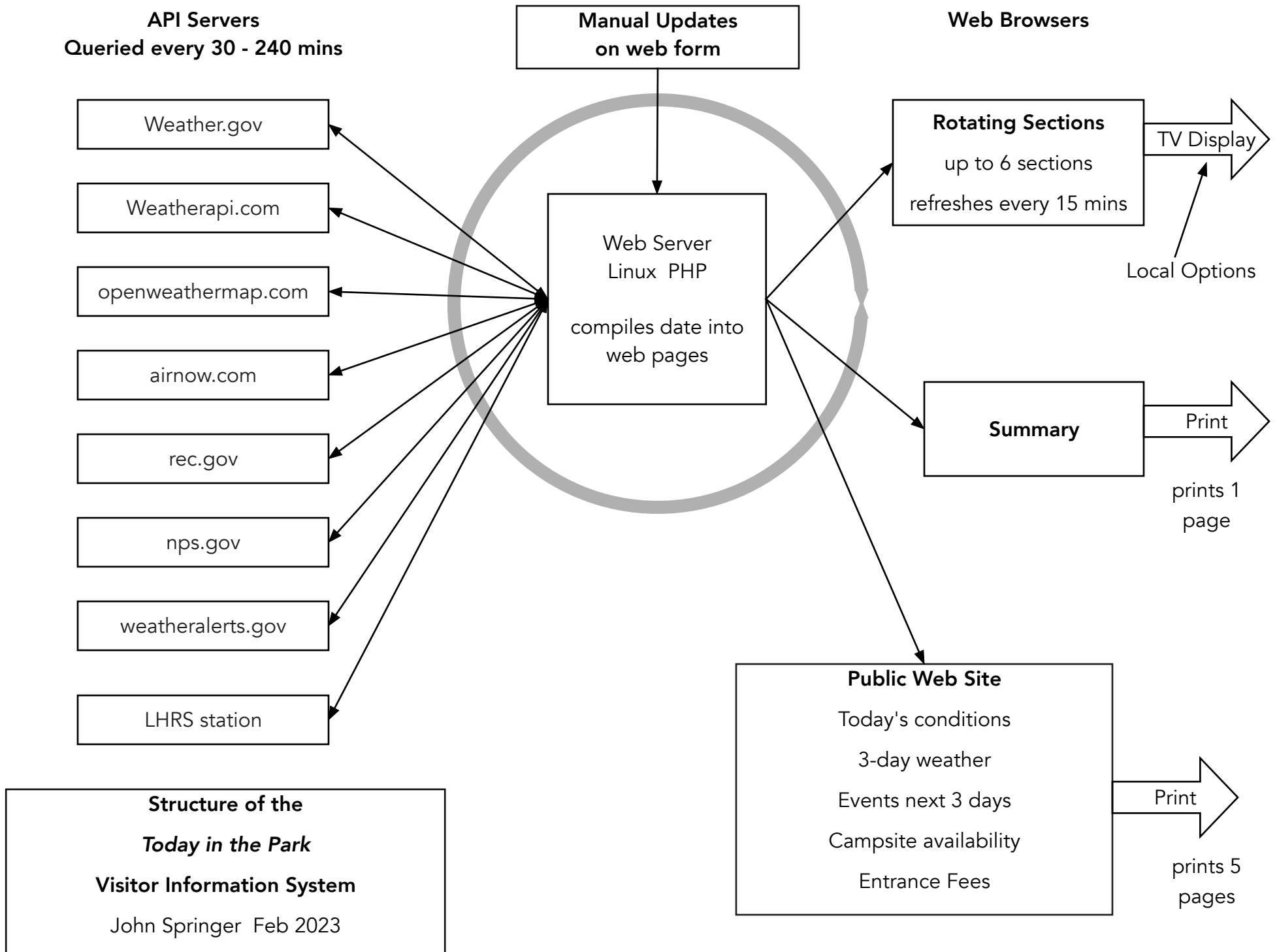
There are also 3 admin pages with different levels of capability. These are simple web forms that allow local personnel to enter information for inclusion in the output pages.

- A fun welcome message

- Advice to visitors – a list of suggestions

- Notices and closures – a list of items

- Alert

- An event calendar.

- Campground status

Attached are:

- Notes on the data, including what data is on each page and issues

- PDFs of each of the pages.

- Admin pages and notes

All the pages (including this one) are visible at https://jotr.digitalmx.com. If you would like to experiment with the admin page, contact me for a test site. Please email comments to me at john@digitalmx.com

John Springer   12/4/21 7:49:00 PM
john@digitalmx.com
503-329-79

API Servers
Queried every 30 - 240 mins

Weather.gov

Weatherapi.com

openweathermap.com

airnow.com

rec.gov

nps.gov

weatheralerts.gov

LHRS station

**Manual Updates
on web form**

Web Server
Linux PHP

compiles date into
web pages

Web Browsers

Rotating Sections

up to 6 sections

refreshes every 15 mins

TV Display

Local Options

Summary

Print

prints 1
page

Public Web Site

Today's conditions

3-day weather

Events next 3 days

Campsite availability

Entrance Fees

Print

prints 5
pages

Structure of the
Today in the Park
Visitor Information System
John Springer Feb 2023

Information on each page

Today page is intended for web site viewing or printing and posting any desired pages

Rotate page is the rotating sequence of pages on a TV screen

Summary is a one-page summary intended to be printed and displayed at interp desks in VCs.

Number in parentheses is printed page or screen number

Name	Contains	**Today**	**Rotate**	**Summary**
Light	Weather today and tonight, sun and moon rise and set	✓ (1)	✓ (1)	✓
Park conditions	LHRS, also air quality, UV, fire danger. Updates every hour	✓ (1) On-line but not printed	✓ (1)	
Alerts	One only. Expires automatically	✓ (1)	✓ (2)	✓
Notices	Bullet list	✓ (1)	✓ (2)	✓
Advice	Bullet list	✓ (1)	✓ (2) 1 permanent, 1 random from the list	✓
Weather	Day and night	✓ (2) 3 days, 4 locations	✓ (3) 3 days, Jumbo Rocks and Cottonwood	
Events		✓ (3) Today and next 2 days	✓ (4) Today and tomorrow	✓ Today only
Campgrounds	Sites, cost, availability Rec.gov updates every 30 mins	✓ (4) Includes QR code to rec.gov	✓ (5)	
Fees	Type, Price, Where to buy	✓ (5) Includes QR code to rec.gov	✓ (6)	

Notes:

All pages visible at https://jotr.digitalmx.com (live site) and http://jotrbeta.digitalmx.com (test site). Use "List of all pages" link at bottom of page.

Sections shown on rotate are set individually on each display. Can be just a single screen or rotations of any or all of the screens.

Access Local Settings on the Rotate page by clicking on the "Time now" display. It lets you change the headline message and choose which pages to show in rotation.

Park conditions change constantly so are not shown on printed pages.

Notes on the data

Light   Light is the name of the pair of shaded blocks labeled Today and Tonight. After sunset, the two blocks change to Tonight and Tomorrow. The day block shows sky conditions, high temp, sunrise and sunset. The night block shows phase of the moon, low temp, moonrise and set. Temperatures are for Jumbo Rocks (middle of the park).

Park Conditions   This is a collection of data. Temp Wind, and Humidity come from sensors at the LHRS. Air quality comes from airnow (eps). Fire Danger comes from Ranger Admin entry. UV comes from another weather site, and probably represents 29 Palms..

Alert   Ranger can define an alert on the Ranger admin page. Alert will have a bold red border. If no alert is defined the "alternate alert" is shown. (Color has been removed from alternate alert.)

Announcements   Ranger defines a list of announcements on admin page. No hard limit on how many.

Advice   Ranger defines a "Fixed Advice" item and then a list of other advice items. Most pages display all the items in the list. The rotate page displays the fixed item and a random choice from the rest of the list. The display changes on every rotation.

Weather   Weather comes from weather.gov, which has good local precision on forecast. Unfortunately, they have had reliability problems. If weather.gov goes down, the display will use an alternate source which is for 29 palms instead. The line under the weather tells you which one was used. It is extremely simple to change the number of days and choice of sites displayed.

Events   Events use the calendar built into the Ranger Admin page. It permits repeating entries as well as single event entries. I can also access the calendar on the NPS web site. However, there are some issues about formatting and choice of events to include

Campgrounds Lists all the campgrounds, divided into 3 groups: reserved, first come, and closed. For reserved campgrounds, available sites are retrieved from rec.gov every 30 minutes. It is also possible to specify available sites on first come areas. A marker is used after the availability to indicate how old the data is. No marker = 3 hours or less. ? = 3 to 12 hours; ?? = more than 12 hours (and number will disappear).

Fees   Set by Site admin. Simple table display.

Issues to be resolved

1) Events

There is an event calendar built into the system, and of course there is an event calendar on the NPS site. I built one into the system because I didn't think I could get access to the NPS back end, but I did. So now both are possibilities, and so is a mixture of the two. The event display contains a location and a brief (one-line) note. (And all the required fields, of course.).

So the first issue is what events go into the NPS calendar (or not). Historically, we have left a lot of things out (Pop-ups), and then struggled to let people know about them. I don't know if this is a practical operational problem, or a deliberate decision not to publicize some things except in closely held ways.

Whichever it is, having the calendar in this system makes it very simple for a ranger to add or cancel an item on a moment's notice.

I recommend we establish a policy about what goes into the NPS calendar, and then use that for this system (resolving the data issue below.). We could use both, with the internal calendar supplementing the NPS calendar, so we could still add an event on short notice.

2) NPS Calendar Data

This issue here is the data we put in. I need to have a location and brief note about an event. We are not putting anything into the location field in NPS and we are putting in a large amount of information in the description field and I can't find a simple brief note field. Easiest solution is if we start putting in a location and I ignore the brief note field. Everything else matches up fine. You can see my calendar with the NPS data by going to http://jotr.digitalmx.com/pages.php and clicking on the link the NPS Calendar.

3) Daily Updates

The site should get a daily checkup of:

   a) Alerts = check weather alerts (visible on the admin page) an copy/paste/edit to make a local alert

   b) Fire danger level

   c) Notices/Closures

   d) Visitor advice (probably doesn't change)

   e) Calendar updates if we decide to use the internal one

Al this data is accesssible in the Ranger Admin page.

4) Campground status

The admin page has campground updates. It rarely needs updating, EXCEPT for first-come, first-served availability. IF we decide to do anything about this, there is also a separate Campground update page/password. If we do nothing,, these sites show ?? in the availability field. Or could just not show the availability column there. Also, there is a ALL CAMPGROUNDS FULL message that comes up when availability is 0 or Unknown (??) everywhere. Could change this equation.

Today in Joshua Tree National Park
Tuesday, February 21, 2023

Now
8:27 PM

Sunset
5:35 PM

Tonight

Partly Cloudy
Low: 26 °F (-3 °C)

Moonrise: 7:34 AM
Moonset: 7:30 PM

**Waxing Crescent
(1% illum)**

Tomorrow

Sunny
High: 40°F (4°C)

Sunrise: 6:22 AM
Sunset: 5:36 PM

Wind: 30 to 35 mph

Forecast for Jumbo Rocks from weather.gov, updated at Feb 21 4:07 pm

Park Conditions at 7:00 pm
Reported near Hidden Valley

Temperature: 46°F (8°C)
Wind: 8 mph (18 kph) S
Gusts to 25 mph
Wind chill: 41°F (5°C)

Air Quality: 48 Good
— *Safe for everyone.*
Fire Danger: Moderate
Humidity: 56 %

UV: 1 Low
— *No protection needed.*
Air Quality: 48 Good
— *Safe for everyone.*

Today Build 2023-02-21 20:13 Rendered 2/21 20:25 Scaled 100% Click for help

Inserted Screen shot becaue Park Conditions doesn't print, only displays on screen

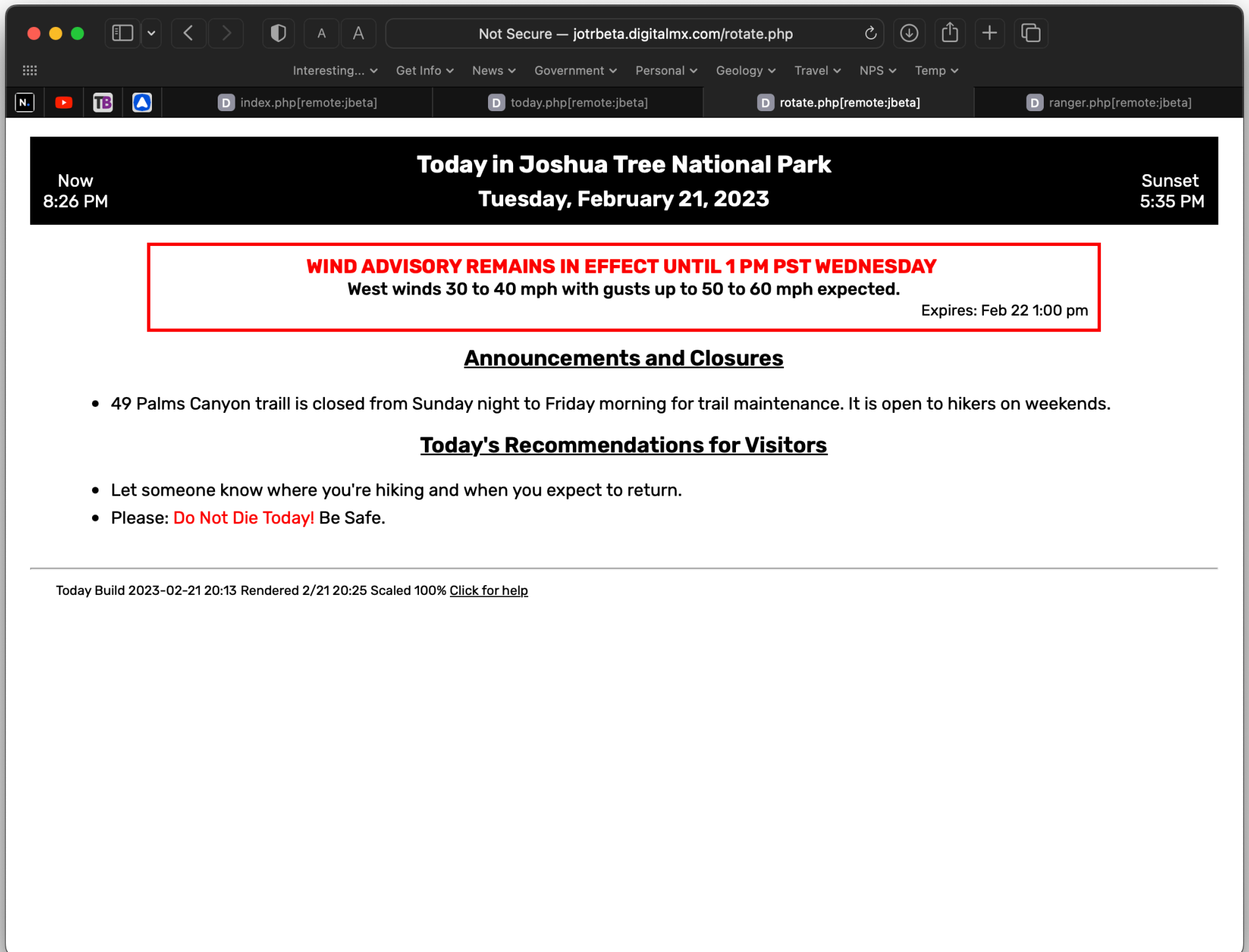**In The Park...**
No Food • No Water • No Cell Service
Enjoy the park safely. Do Not Die Today!

Announcements and Closures

- 49 Palms Canyon traill is closed from Sunday night to Friday morning for trail maintenance. It is open to hikers on weekends.

Today's Recommendations for Visitors

- Let someone know where you're going and when you'll return
- Please: Do Not Die Today! Be Safe.

Today in Joshua Tree National Park
Tuesday, February 21, 2023

Now
8:26 PM

Sunset
5:35 PM

WIND ADVISORY REMAINS IN EFFECT UNTIL 1 PM PST WEDNESDAY
West winds 30 to 40 mph with gusts up to 50 to 60 mph expected.

Expires: Feb 22 1:00 pm

Announcements and Closures

- 49 Palms Canyon traill is closed from Sunday night to Friday morning for trail maintenance. It is open to hikers on weekends.

Today's Recommendations for Visitors

- Let someone know where you're hiking and when you expect to return.
- Please: Do Not Die Today! Be Safe.

Today Build 2023-02-21 20:13 Rendered 2/21 20:25 Scaled 100% Click for help

Screen shot to show real alert instead of the "alt alert"

Weather Forecast

		Tuesday, Feb 21	Wednesday, Feb 22	Thursday, Feb 23
Jumbo Rocks	**Day**	**Mostly Sunny** 59°F (15°C). Wind 25 to 35 mph	**Sunny** 40°F (4°C). Wind 30 to 35 mph	**Chance Snow Showers** 40°F (4°C). Wind 15 to 20 mph
	Night	**Partly Cloudy** 26°F (-3°C). Wind 30 to 45 mph	**Partly Cloudy** 24°F (-4°C). Wind 15 to 30 mph	**Chance Snow Showers** 26°F (-3°C). Wind 15 mph
Cottonwood	**Day**	**Mostly Sunny** 63°F (17°C). Wind 20 to 30 mph	**Sunny** 45°F (7°C). Wind 25 to 35 mph	**Chance Snow Showers** 44°F (7°C). Wind 10 to 20 mph
	Night	**Partly Cloudy** 33°F (1°C). Wind 30 to 45 mph	**Partly Cloudy then Slight Chance Snow Showers** 29°F (-2°C). Wind 10 to 25 mph	**Chance Rain And Snow Showers** 33°F (1°C). Wind 15 to 20 mph

weather.gov forecast updated at Feb 21 11:57 am

Upcoming Events

Date	Time	Program	Location
Wednesday, 2/22	9:00 am	**Ranger Chat** Ranger Chat (15 mins)	Joshua Tree VC, 29 Palms VC, Cottonwood VC
	2:00 pm	**Cholla Chat** Ranger Chat (2 hours)	Cholla Garden

For reservations, go to recreation.gov or call 1-877-444-6777

Campgrounds

Reserved Campsites			
Campground	**Sites**	**Fee**	**Available Now**
Black Rock	99	$ 25	**40**
Cottonwood	62	$ 25	**10**
Indian Cove	101	$ 25	**8**
Jumbo Rocks	124	$ 20	**19**
Ryan	31	$ 20	**3**
Sheep Pass (group)	6	$ 50	**3**

First Come, First Served Campgrounds			
Campground	**Sites**	**Fee**	**Available Now**
Belle	18	$ 15	**6 ?**
Hidden Valley	50	$ 15	**??**
White Tank	15	$ 15	**??**

Closed Campgrounds: None

Recreation.gov availability updated at Feb 21 5:00 pm
Tag after availability: ?: Data 3 to 12 hours old. ??: older and unreliable.

Entrance Fees

Help Keep The Line Moving – Purchase Your Pass Before You Get To The Entrance

Pass	For	Valid For	Price	Rec.gov	Entrance Station	Visitor Center
					Where to Buy	
Passes for Joshua Tree National Park						
7-Day Vehicle	Everyone	7 days	$ 30	✔	✔	✔
Annual Vehicle	Everyone	1 year	$ 55	✔	✔	✔
Hikers and bikers	Individuals	7 days	$ 15	✔	✔	
Vehicle Passes for all National Parks and Federal recreation sites						
America the Beautiful	Everyone	1 Year	$ 80	✔	✔	✔
Senior Annual	US citizen Age 62+	1 Year	$ 20		✔	
Senior Lifetime	US citizen Age 62+	Lifetime	$ 80		✔	
Military, Gold Star Families, Disabled	Qualified Visitors	varies	free		✔	
Fourth Grade Students	Qualified Visitors	School Year	free		✔	

**Buy passes on line or by phone at recreation.gov.
Entrance stations take credit card only — no cash.**

Today Build 2023-02-21 17:27 Rendered 2/21 17:28 Scaled 100% Click for help

It's National Hug a Ranger day!

Today

Mostly Sunny
High: 59°F (15°C)

Sunrise: 6:23 AM
Sunset: 5:35 PM

Wind: 25 to 35 mph

Tonight

Partly Cloudy
Low: 26 °F (-3 °C)

Moonrise: 7:34 AM
Moonset: 7:30 PM

Waxing Crescent
(1% illum)

Forecast for Jumbo Rocks from weather.gov, updated at Feb 21 11:57 am

In The Park...
No Food • No Water • No Cell Service
Enjoy the park safely. Do Not Die Today!

Announcements and Closures

- 49 Palms Canyon traill is closed from Sunday night to Friday morning for trail maintenance. It is open to hikers on weekends.

Today's Recommendations for Visitors

- Weather can change rapidly. Always have warm clothing.
- Be off the trails before it gets dark.
- Avoid Key's View near sunset, unless you like sitting on LA freeways. Sunsets are great everywhere in the park.
- Always carry water, even on short hikes. You might need it.
- Let someone know where you're hiking and when you expect to return.
- Please: Do Not Die Today! Be Safe.

Weather

	Tuesday, Feb 21	Wednesday, Feb 22	Thursday, Feb 23
Jumbo Rocks			
Day	**Mostly Sunny** 59°F (15°C). Wind 25 to 35 mph	**Sunny** 40°F (4°C). Wind 30 to 35 mph	**Chance Snow Showers** 40°F (4°C). Wind 15 to 20 mph
Night	**Partly Cloudy** 26°F (-3°C). Wind 30 to 45 mph	**Partly Cloudy** 24°F (-4°C). Wind 15 to 30 mph	**Chance Snow Showers** 26°F (-3°C). Wind 15 mph
Cottonwood			
Day	**Mostly Sunny** 63°F (17°C). Wind 20 to 30 mph	**Sunny** 45°F (7°C). Wind 25 to 35 mph	**Chance Snow Showers** 44°F (7°C). Wind 10 to 20 mph
Night	**Partly Cloudy** 33°F (1°C). Wind 30 to 45 mph	**Partly Cloudy then Slight Chance Snow Showers** 29°F (-2°C). Wind 10 to 25 mph	**Chance Rain And Snow Showers** 33°F (1°C). Wind 15 to 20 mph
Black Rock			
Day	**Partly Sunny** 59°F (15°C). Wind 30 to 35 mph	**Sunny** 40°F (4°C). Wind 25 to 35 mph	**Chance Snow Showers** 38°F (3°C). Wind 20 to 25 mph
Night	**Partly Cloudy then Slight Chance Snow Showers** 30°F (-1°C). Wind 30 to 45 mph	**Partly Cloudy then Slight Chance Snow Showers** 29°F (-2°C). Wind 20 to 30 mph	**Chance Snow Showers** 31°F (-1°C). Wind 15 to 20 mph
Twentynine Palms			
Day	**Patchy Blowing Dust** 68°F (20°C). Wind 25 to 35 mph	**Patchy Blowing Dust** 48°F (9°C). Wind 25 to 35 mph	**Chance Snow Showers** 48°F (9°C). Wind 10 to 20 mph
Night	**Patchy Blowing Dust** 34°F (1°C). Wind 35 to 45 mph	**Patchy Blowing Dust then Partly Cloudy** 32°F (0°C). Wind 10 to 25 mph	**Chance Rain And Snow Showers** 34°F (1°C). Wind 10 to 15 mph

weather.gov forecast updated at Feb 21 11:57 am

Upcoming Events

Time	Program	Type	Location
Wednesday, February 22			
9:00 am	**Ranger Chat**	15 mins Ranger Chat	Joshua Tree VC, 29 Palms VC, Cottonwood VC
2:00 pm	**Cholla Chat**	2 hours Ranger Chat	Cholla Garden
	Chat with a Ranger about the vegetation		
Thursday, February 23			
9:00 am	**Ranger Chat**	15 mins Ranger Chat	Joshua Tree VC, 29 Palms VC, Cottonwood VC
9:30 am	**Keys Ranch Tour**	90 mins Guided Tour Reservation Req'd	Keys Ranch Gate (near Barker Dam)
	Take Barker Dam road to Keys Ranch Road; assemble at locked gate.		
1:00 pm	**Keys Ranch Tour**	90 mins Guided Tour Reservation Req'd	Keys Ranch Gate (near Barker Dam)
	Take Barker Dam road to Keys Ranch Road; assemble at locked gate.		
3:00 pm	**All About Joshua Trees**	1 hour Ranger Walk	Cap Rock

For reservations, go to recreation.gov or call 1-877-444-6777

Campgrounds

Campground	Total Sites	Nightly Fee	Available Now	Note
Reserved Campgrounds Make reservations at recreation.gov or call 1-877-444-6777.				
Black Rock	99	$ 25	40	
Cottonwood	62	$ 25	10	
Indian Cove	101	$ 25	8	
Jumbo Rocks	124	$ 20	19	
Ryan	31	$ 20	3	
Sheep Pass (group)	6	$ 50	3	
First Come, First Served Campgrounds Find an empty site and claim it. Pay ranger or at entrance station.				
Belle	18	$ 15	6 ?	
Hidden Valley	50	$ 15	??	
White Tank	15	$ 15	??	
Closed Campgrounds				
None				

Recreation.gov availability updated at Feb 21 5:00 pm
Tag after availability: ?: Data 3 to 12 hours old. ??: older and unreliable.

Reserve Your Campground
RECREATION.gov

Entrance Fees

Pass	For	Valid For	Price	Where to Buy		
				Rec.gov	**Entrance Station**	**Visitor Center**
Passes for Joshua Tree National Park						
7-Day Vehicle	Everyone	7 days	$ 30	✔	✔	✔
Annual Vehicle	Everyone	1 year	$ 55	✔	✔	✔
Hikers and bikers	Individuals	7 days	$ 15	✔	✔	
Vehicle Passes for all National Parks and Federal recreation sites						
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Senior Annual	US citizen Age 62+	1 Year	$ 20		✔	
Senior Lifetime	US citizen Age 62+	Lifetime	$ 80		✔	
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Fourth Grade Students	Qualified Visitors	School Year	free		✔	

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Partly Cloudy
Low: 26 °F (-3 °C)

Moonrise: 7:34 AM
Moonset: 7:30 PM

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(1% illum)**

Tomorrow
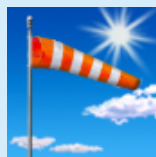
Sunny
High: 40°F (4°C)

Sunrise: 6:22 AM
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Announcements and Closures

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Today's Events

No Events Scheduled

Today Build 2023-02-21 17:27 Rendered 2/21 19:51 Scaled 100% Click for help