



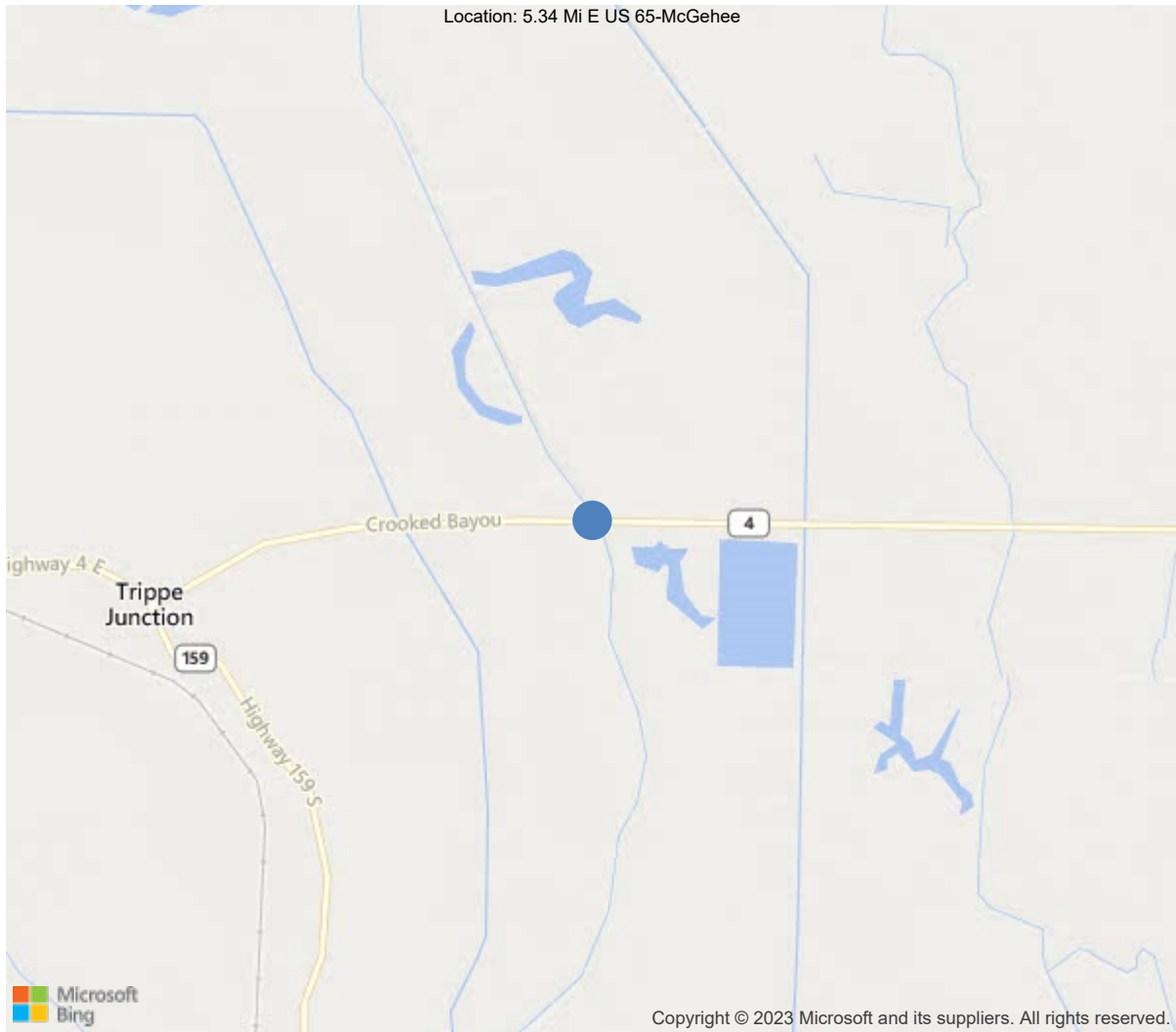
Latitude:33.60608, Longitude:-91.29701

Route:4 Section:17 Log:5.34

Arnold Road ID:21x4x17xA, Arnold Log mile:5.314

District 02, 41 - Desha County

Owner: 1 - State Highway Agency



33.60608, -91.29701



Asset #02162(Routine)

SH 4-17 LM 5.34 over Bayou Macon

Location: 5.34 Mi E US 65-McGehee

Team Lead: Greg Loomis, Inspection Date: 03/31/2021

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	02162
(5) Inventory Route	1
(2) Highway Agency District	02 - District 02
(3) County Code	41 - Desha County
(4) Place Code	0
(6) Features Intersected	Bayou Macon
(7) Facility Carried	SH 4-17 LM 5.34
(9) Location	5.34 Mi E US 65-McGehee
(11) Mile Point	5.34 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	33.60608
(17) Longitude	-91.29701
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	32
Material	3 - Steel
Type	2 - Stringer/Multi-beam or girder
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	4
(46) No. of Approach Spans	0
(107) Deck Structure Type	1 - Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	5 - Epoxy Overlay
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1957
(106) Year Reconstructed	0
(42) Type of Service	15
On	1 - Highway
Under	5 - Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	900
(30) Year of ADT	2018
(109) Truck ADT	9 %
(19) Bypass, Detour Length	11 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	50 ft
(49) Structure Length	202.3 ft
(50) Curb or Sidewalk Width	
Left	1 ft
Right	1 ft
(51) Bridge Roadway Width Curb to Curb	24 ft
(52) Deck Width Out to Out	28.5 ft
(32) Approach Roadway Width (W/Shoulders)	34.1 ft
(33) Bridge Median	0 - No median
(34) Skew	45 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	25.9 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	99.9 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	0 - No navigation control on w
(111) Pier Protection	5 - None present but re-evalua
(39) Navigation Vertical Clearance	0 ft
(116) Vert-Lift Bridge Nav Min Vert Clear	0 ft
(40) Navigation Horizontal Clearance	0 ft

CLASSIFICATION	
(112) NBIS Bridge Length	Y
(104) Highway System	0
(26) Functional Class	7 - Rural Major Collector
(100) Defense Highway	0 - The inventory route is not
(101) Parallel Structure	N - No parallel structure exis
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0 - N/A
(110) Designated National Network	0 - The inventory route is not
(20) Toll	3 - On free road. The structu
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	7
(59) Superstructure	6
(60) Substructure	6
(61) Channel & Channel Protection	6
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	2 - M 13.5 / H 15
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1 - Load Factor(LF)
Rating	40
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	24
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	A - Open, no restriction
APPRAISAL	
(67) Structural Evaluation	5
(68) Deck Geometry	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	6
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1 - Inspected feature meets current
(36B) Transitions	1 - Inspected feature meets current
(36C) Approach Guardrail	1 - Inspected feature meets current
(36D) Approach Guardrail Ends	1 - Inspected feature meets current
(113) Scour Critical Bridges	5 - Bridge foundations determined t
PROPOSED IMPROVEMENTS	
(75) Type of Work	
(76) Length of Structure Improvement	0 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 0
(97) Year of Improvement Cost Estimate	
(114) Future ADT	1700
(115) Year of Future ADT	2036

INSPECTIONS *			
(90) Inspection Date	03/31/2021		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection			
<p>* The inspection date and frequency information in this box contains the current NBI date and frequency information. Please refer to the report header for the date this inspection was conducted.</p>			



Asset #02162(Routine)

District: 02, County: 41 - Desha County

Team Lead: Greg Loomis, Inspection Date: 03/31/2021

**A-21 - Code 9 (Beginning)**

-

---

**A-22 - Code 9 (End)**

-

---

**A-46 - Asset Files**

-

---

**General Observation (False)**

Bridge is logged from west to east.  
Beginning of bridge towards McGehee.

12-09-2020 GGL-PRD: Drive-by of structure showed sliding plate on Bent 5 joint making considerable noise. Situation was investigated and documented.

---





Asset #02162(Routine)

SH 4-17 LM 5.34 over Bayou Macon

Location: 5.34 Mi E US 65-McGehee

Team Lead: Greg Loomis, Inspection Date: 03/31/2021

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	5067	4993	29	45	0
1080	Delamination/Spall/Patched Area	SF	8	0	8	0	0
1090	Exposed Rebar	SF	13	0	13	0	0
1120	Efflorescence/Rust Staining	SF	53	0	8	45	0
510	Wearing Surfaces	SF	4800	4800	0	0	0
(12) Deck: 25'-4" wide (1'-7" STEP-UP each side) x 200' long = 5067 sqft. Wearing surface (polymer overlay): 24' wide x 200' long = 4800 sqft.  NOTE: Asphalt wearing surface was milled off deck surface, spalls and delaminations were patched, and a polymer overlay placed on deck.  Soffit - Several scattered locations where contractor broke through deck while making repairs - resulting in spalls with exposed rebar, mainly along gutter-lines (outside of outer girder). Span 2 Bay 4 @ Bent 3: A couple transverse lines of efflorescence. Span 4 Bay 4 @ Bent 5: Area of transverse lines of efflorescence.							
107	Steel Open Girder/Beam	LF	1000	872	96	32	0
1000	Corrosion	LF	128	0	96	32	0
515	Steel Protective Coating	SF	7410	0	6572	718	120
3410	Chalking (Steel Protective Coatings)	LF	6572	0	6572	0	0
3440	Effectiveness (Steel Protective Coatings)	LF	838	0	0	718	120
(107) Girders: 5 per span / Spans 1-4 (50' each = 200' total span). Coating/paint (W30x108): 7.41 square feet per linear feet of girder.  Ends of girders have been cleaned and spot-painted by state forces; however, corrosion is beginning to reform - especially on outer girders at haunches. Some section loss at bearings on outer girders. Exterior of outer girders is rusting at drains and on top of bottom flange.  Remaining girders are dull and without luster with a few scattered locations where light surface rust is beginning to show through.							
215	Reinforced Concrete Abutment	LF	78	78	0	0	0
(215) Abutments: 28'-2" = 29' each (with 4'-6" or 5'-6" wings each corner) / Bents 1 & 5.							
227	Reinforced Concrete Pile	EA	15	5	10	0	0
1190	Abrasion/Wear (PSC/RC)	EA	10	0	10	0	0
(227) Piling: 5 per bent \ Bents 2-4. Bents 3-4: Some light abrasive wear.							
234	Reinforced Concrete Pier Cap	LF	72	65	7	0	0
1120	Efflorescence/Rust Staining	LF	2	0	2	0	0
1130	Cracking (RC and Other)	LF	5	0	5	0	0

**Team Lead:** Greg Loomis, **Inspection Date:** 03/31/2021

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(234) Caps: 28'-2" = 29' each / Bents 2-4. Bents 2-4: Some cracking with efflorescence, mainly on front and back faces left end and at center-line.							
305	Assembly Joint without Seal	LF	125	3	12	110	0
2350	Debris Impaction	LF	100	0	0	100	0
2360	Adjacent Deck or Header	LF	12	0	12	0	0
2370	Metal Deterioration or Damage	LF	10	0	0	10	0
(305) Joint: 25' each (skewed) / Bents 1-5. Some build-up of polymer overlay material in expansion areas. Bent 5: Center section (10') of sliding plate is loose and is flexing/making a considerable amount of noise when ran over by traffic in either direction (also able to flex under foot). No evidence of cracking of plate at this time (03-31-2021).							
311	Movable Bearing	EA	20	12	0	8	0
1000	Corrosion	EA	8	0	0	8	0
515	Steel Protective Coating	SF	40	24	0	0	16
3440	Effectiveness (Steel Protective Coatings)	EA	16	0	0	0	16
(311) Moveable bearings: 5 per bent / Bents 2B, 3B, 4B, & 4A. Coating: 2 square feet each. Bearings have been cleaned and repainted by state forces; however, corrosion/flaking is becoming heavy, especially on outer bearings.							
313	Fixed Bearing	EA	20	12	0	8	0
1000	Corrosion	EA	8	0	0	8	0
515	Steel Protective Coating	SF	40	24	0	0	16
3440	Effectiveness (Steel Protective Coatings)	EA	16	0	0	0	16
(313) Fixed bearings: 5 per bent / Bents 1, 2A, 3A, & 5. Coating: 2 square feet each. Bearings have been cleaned and repainted by state forces; however, corrosion is beginning to reappear especially on outer bearings.							
330	Metal Bridge Railing	LF	404	404	0	0	0
515	Steel Protective Coating	SF	1010	0	1010	0	0
3410	Chalking (Steel Protective Coatings)	LF	1010	0	1010	0	0
(330) Railing: 202' each side. Coating: 2.5 square feet per linear feet of railing. Metal railing on concrete posts. Railing is dull with some scattered rusty spots. Various locations rail and posts with minor collision damage. Some repairs at various locations.							



**SH 4-17 LM 5.34 over Bayou Macon**

**Location: 5.34 Mi E US 65-McGehee**

**Team Lead:** Greg Loomis, **Inspection Date:** 03/31/2021

## Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
107	Steel Open Girder/Beam	LF	1000	872	96	32	0
1000	Corrosion	LF	128	0	96	32	0
515	Steel Protective Coating	SF	7410	0	6572	718	120
3410	Chalking (Steel Protective Coatings)	LF	6572	0	6572	0	0
3440	Effectiveness (Steel Protective Coatings)	LF	838	0	0	718	120
<p>(107) Girders: 5 per span / Spans 1-4 (50' each = 200' total span).            Coating/paint (W30x108): 7.41 square feet per linear feet of girder.</p> <p>Ends of girders have been cleaned and spot-painted by state forces; however, corrosion is beginning to reform - especially on outer girders at haunches.            Some section loss at bearings on outer girders.            Exterior of outer girders is rusting at drains and on top of bottom flange.</p> <p>Remaining girders are dull and without luster with a few scattered locations where light surface rust is beginning to show through.</p>							







Asset #02162(Routine)

SH 4-17 LM 5.34 over Bayou Macon

Location: 5.34 Mi E US 65-McGehee

Team Lead: Greg Loomis, Inspection Date: 03/31/2021

## Culvert

ELEMENTS	DESCRIPTION	UNITS	TOTAL				
				CS1	CS2	CS3	CS4



Left side view



Roadway view



Deck - Spans 1-4: Typical



Soffit - Span 4: Typical



Cap - Bent 2 back left: Cracking with efflorescence



**Maintenance Needs**

**Date Reported:** 02/02/2016  
**Priority:** D- Routine  
**Type of Work:** Repair (General)  
**Status:** RepairDocumented  
**Component:** Approach

---

**Deficiency Description**

CORRECTED - Bent 4 deck has potholes at joint armor.

**Remarks**

03-31-2021 GGL-PRD: Deck has been repaired/polymer sealed.

02-07-2017 GGL-KLR: Location currently under contract for repairs.

---



CORRECTED - Joint - Bent 4: Deck  
repaired/polymer sealed



**Asset #02162(Routine)**

**SH 4-17 LM 5.34 over Bayou Macon**

**Location: 5.34 Mi E US 65-McGehee**

**Team Lead:** Greg Loomis, **Inspection Date:** 03/31/2021

**Date Reported:** 02/28/2019  
**Priority:** D- Routine  
**Type of Work:** Repair (General)  
**Status:** Monitor  
**Component:** Element

---

#### **Deficiency Description**

Girders - Spans 1-4:

Ends of girders have been cleaned and spot-painted by state forces; however, corrosion is beginning to reform - especially on outer girders at haunches.

Some section loss at bearings on outer girders.

Exterior of outer girders is rusting at drains and on top of bottom flange.

Remaining girders are dull and without luster with a few scattered locations where light surface rust is beginning to show through.

#### **Remarks**

---



Spans 1-2 Girder 5 right: Corrosion



Span 1 Girder 2 left @ Bent 1: Corrosion



Span 1 Bent 2 girder 4 has some rust with flaking in hunch area. Common most hunch areas this bridge.



**Date Reported:** 02/28/2019  
**Priority:** C - Important  
**Type of Work:** Repair (General)  
**Status:** Assigned  
**Component:** Element

---

#### Deficiency Description

Bearings - all bents:  
Bearings 1 & 5 @ Bents 2-4 have heavy corrosion/flaking.  
Remaining bearings have some corrosion forming.

#### Remarks

---



Bent 2 bearing 1 back has heavy flaking rust.  
Common bearing 5 this bent and on bearings 1 & 5  
Bent 3.

**Date Reported:** 02/28/2019  
**Priority:** C - Important  
**Type of Work:** Repair (General)  
**Status:** Open  
**Component:** Element

---

**Deficiency Description**

Railing - Span 3 right near Bent 4: Minor post damage.

03-31-2021 GGL-PRD: Changed priority from "G" to "C".

**Remarks**

---



Span 3 near bent 4 has some rail post damage right side.



Railing - Bent 4 right: Post damaged



**Asset #02162(Routine)**

**SH 4-17 LM 5.34 over Bayou Macon**

**Location: 5.34 Mi E US 65-McGehee**

**Team Lead:** Greg Loomis, **Inspection Date:** 03/31/2021

**Date Reported:** 02/07/2017  
**Priority:** D- Routine  
**Type of Work:** (Inactive) (Inactive) 1 - Clean  
**Status:** RepairDocumented  
**Component:** Channel

---

**Deficiency Description**

Channel - Bents 3-4 left : Minor build-up of logs, limbs, and other debris against piling.

**Remarks**

03-31-2021 GGL-PRD: No debris build-up visible this inspection - moderate water height.

Removed by State Forces.

Desha: remove debris

---





**CORRECTED - Channel - left side: No debris build-up visible**



**Channel - Bents 3-4 left (debris build-up)**





Channel - Bents 3-4 left (debris build-up)

**Date Reported:** 12/11/2020  
**Priority:** C - Important  
**Type of Work:** Repair (General)  
**Status:** Monitor  
**Component:** Element

---

### Deficiency Description

Joint - Bent 5:

Center section (10') of sliding plate is loose and is flexing/making a considerable amount of noise when ran over by traffic in either direction (also able to flex under foot). No evidence of cracking of plate at this time (03-31-2021).

### Remarks

---



Joint - Bent 5: Sliding plate loose



Joint - Bent 5: Sliding plate loose

**Date Reported:** 04/01/2021  
**Priority:** C - Important  
**Type of Work:** Replace (General)  
**Status:** Open  
**Component:** Approach

---

**Deficiency Description**

Signs - both sides/ends: No log mile signs, object markers, or posts.  
Signs should read "4-17  
5.34"

**Remarks**

---



Sign - Bent 1 right: Log mile sign missing



**Asset #02162(Routine)**

**SH 4-17 LM 5.34 over Bayou Macon**

**Location: 5.34 Mi E US 65-McGehee**

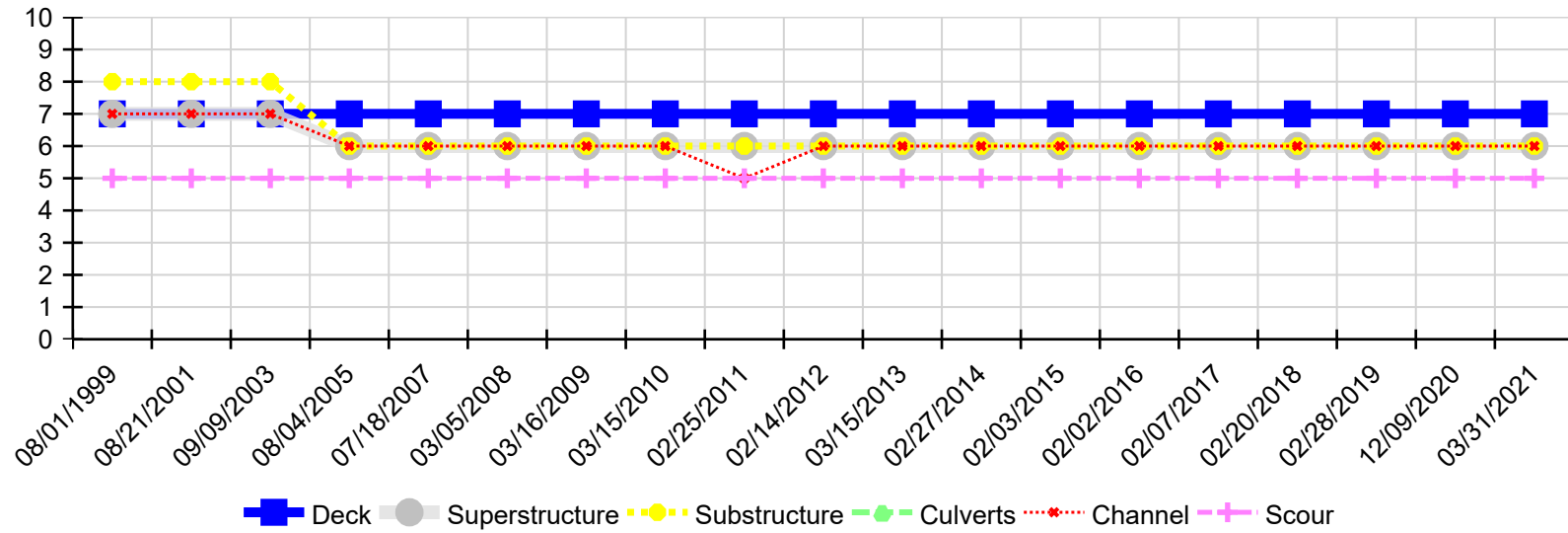
**Team Lead:** Greg Loomis, **Inspection Date:** 03/31/2021

## **Routine Maintenance**

Check Box Maintenance Items

<b>Data Field</b>	<b>Value</b>
A-54 - Sealable Deck Cracks	
A-55 - Deck Washing Needed	
A-56 - Joint Cleaning/Flushing Needed	
A-57-Beam End and Bearing Paint Needed	
A-58 - Cap Cleaning/Flushing Needed	
A-59 - Joint Repair Needed	
A-60 - Full Beam Painting Needed	
A-61 - Polymer Overlay Advised	
A-62 - Hydo and LMC Advised	

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
03/31/2021	7	6	6	N	6	5
12/09/2020	7	6	6	N	6	5
02/28/2019	7	6	6	N	6	5
02/20/2018	7	6	6	N	6	5
02/07/2017	7	6	6	N	6	5
02/02/2016	7	6	6	N	6	5
02/03/2015	7	6	6	N	6	5
02/27/2014	7	6	6	N	6	5
03/15/2013	7	6	6	N	6	5
02/14/2012	7	6	6	N	6	5
02/25/2011	7	6	6	N	5	5
03/15/2010	7	6	6	N	6	5
03/16/2009	7	6	6	N	6	5
03/05/2008	7	6	6	N	6	5
07/18/2007	7	6	6	N	6	5
08/04/2005	7	6	6	N	6	5
09/09/2003	7	7	8	N	7	5
08/21/2001	7	7	8	N	7	5
08/01/1999	7	7	8	N	7	5