

# Earth smashes yet another heat record; 16th month in a row

By **SETH BORENSTEIN**  
AP Science Writer

WASHINGTON — Another month, another global heat record smashed.

The National Oceanic and Atmospheric Administration on Tuesday said August's temperature of 61.74 degrees was .09 degrees warmer than the old August record set last year, and

was the 16th consecutive month of record-breaking heat. NOAA monitoring chief Deke Arndt said it was also the hottest summer, with 2016 on pace to smash last year's record for the hottest year.

August 2016 was also 1.66 degrees warmer than the 20th-century average. It was the fifth hottest month of any kind recorded, going back to 1880.

Six of the 17 hottest months on record have been the summer months of 2015 and 2016.

The June-through-August summer was 2.18 degrees warmer than the 20th-century average and beat the old summer heat record, set last year, by one-fifth of a degree, NOAA said.

"The needle has been shoved all the way over into the red by greenhouse gases," Arndt said.

NOAA's announcement came on a day when 375 members of the National Academy of Sciences, including Stephen Hawking and 30 Nobel laureates, released an open letter urging American leaders not to pull out of an international agreement to curb global warming.

Organizer and MIT climate scientist Kerry Emanuel said the scientists wrote the letter

in response to the Republican party platform that rejects the Paris climate agreement reached last December. The letter said presidential nominee Donald Trump's advocacy of withdrawing from that agreement would "send a clear signal to the rest of the world: The United States does not care about the global problem of human-caused climate change."

Pulling out of the Paris accord, Emanuel said, "will accelerate our head-long plunge into a riskier and riskier climate."

"Everywhere we look we see signs that the climate really is changing," Emanuel said. "We're getting wake-up calls more frequently and we really have to do something about this."

# TV LISTINGS

THE DAILY ASTORIAN

Evening listings  
FRIDAY-SUNDAY

FRIDAY EVENING A - Charter Astoria/Seaside - L - Charter Long Beach SEPTEMBER 23

A	L	6 PM	6:30	7 PM	7:30	8 PM	8:30	9 PM	9:30	10 PM	10:30	11 PM	11:30
2	KATU	(2) KATU News at 6		Jeopardy!	Wheel of Fortune	Last Man (SP) (N)	Dr. Ken (SP) (N)	Shark Tank (SP) (N)		20/20		KATU News at 11	(35) H.S. Blitz
4	KOMO	(4) KOMO 4 News		Wheel of Fortune	Jeopardy!	Last Man (SP) (N)	Dr. Ken (SP) (N)	Shark Tank (SP) (N)		20/20		KOMO 4 News	(35) Jimmy Kimmel
5	KING	(5) NBC Nightly News	KING 5 News	KING 5 News	Evening Extra	Superstore (SP)	The Good Place	Dateline NBC Investigative features are covered. (SP) (N)				KING 5 News	(35) Tonight Show
6	KOIN	(6) KOIN 6 News at 6	CBS Evening News	Extra	Ent. Tonight	MacGyver "The Rising" (P) (N)	Hawaii Five-0 (N)	Blue Bloods "The Greater Good" (SP) (N)				KOIN 6 News @ 11	(35) S. Colbert
7	KIRO	(7) KIRO 7 News	CBS Evening News	The Insider	Ent. Tonight	MacGyver "The Rising" (P) (N)	Hawaii Five-0 (N)	Blue Bloods "The Greater Good" (SP) (N)				KIRO News	(35) S. Colbert
8	KGW	(8) KGW News at 6:00 p.m.	Last Man Standing	Live at Seven	Inside Edition	Superstore (SP)	The Good Place	Dateline NBC Investigative features are covered. (SP) (N)				KGW News at 11	(35) Tonight Show
9	KRCW	(9) Last Man Standing	Last Man Standing	Modern Family	Modern Family	Illusion (N)	Masters of Illusion	Penn & Teller: Fool Us		KGW News at 10	Two and a Half	Two and a Half	Met Your Mother
10	KOPB	(10) Expeditions	Business (N)	PBS NewsHour		Wash. Week (N)	Hollywood Idols	Place Call Home	(45) Place/ Home	The Mona Lisa Smile	Masterpiece Classic	Indian Summers	Film School Shorts
12	KPTV	(12) 6 O'Clock News	Timbers in 30	Family Feud	Family Feud	Hell's Kitchen (N)		The Exorcist (N)		10 O'Clock News	2 Broke Girls	11 O'Clock News	2 Broke Girls
13	KPDx	(13) Mike & Molly	Mike & Molly	Big Bang Theory	Big Bang Theory	FOX 12's 8 O'Clock News on PDX-TV	FOX 12's 9 O'Clock News on PDX-TV	Bones "The Hole in the Heart"		Bones "The Hole in the Heart"	Bones "The Change in the Game"	Q13 News at 10	Most Wanted
19	KCPQ	(19) Modern Family	Modern Family	Big Bang Theory	Big Bang Theory	Hell's Kitchen (N)		The Exorcist (N)		Q13 News at 10	Most Wanted	The Simpsons	
20	TBS	(20) Seinfeld	Seinfeld	Seinfeld	Seinfeld	Big Bang Theory	Big Bang Theory	Big Bang Theory	Big Bang Theory	*** We're the Millers '13	Jennifer Aniston, Emma Roberts, Jason Sudeikis.	Friends	Friends
22	KZJO	(22) Two and a Half	Two and a Half	Last Man Standing	Last Man Standing	Modern Family	Modern Family	Q13 News at 9		Big Bang Theory	Big Bang Theory	Friends	Friends
29	ESPN	(29) (5:00) NCAA Football	TCU at Southern Methodist University (L)			SportsCenter		SportsCenter		SportsCenter		SportsCenter	
30	ESPN2	(30) (4:00) MLB Baseball	(L)	Baseball Tonight (L)		Drone Racing U.S. Nationals		Baseball Tonight (L)		30 for 30 "Pony Excess"			
31	NICK	(31) Henry Danger	Henry Danger	Crashletes (N)	Mega Life (N)	All In/ Cam (N)	HALO Effect (N)	Full House	Full House	Full House	Full House	Friends	Friends
32	DISN	(32) Backstage (N)	K.C. Undercover	Elena of Avalor	Elena of Avalor	Liv Maddie Cali (N)	Girl Meets W. (N)	K.C. Undercover	Bizaardvark	Walk the Prank	Walk the Prank	LEGO Freemaker	Liv Maddie Cali
34	FAM	(34) (5:30) *** Jumanji	(1995, Fantasy) Bonnie Hunt, Kirsten Dunst, Robin Williams.	(15) *** Charlie and the Chocolate Factory	(2005, Adventure) Freddie Highmore, David Kelly, Johnny Depp.								
35	FMC	(35) (5:00) **** Captain Phillips	'13 Tom Hanks.	(45) **** Captain Phillips	(2013, Docu-Drama) Barkhad Abdi, Tom Hanks.							*** Unstoppable	(11, Act) Chris Pine, Denzel Washington.
36	LIFE	(36) Bring It! "Dancing With the Enemy"	Bring It! "Wiggling Out"			Bring It! Fan Chat (N)		Bring It! (SF) (N)		The Rap Game "Final Pt. 2" (SF) 2/2 (N)	The Rap Game "Final Pt. 2" Pt. 2 of 2		
38	ROOT	(38) (5:00) MLB Baseball	Seattle Mariners at Minnesota Twins (L)			Post-game		MLB Baseball Seattle Mariners at Minnesota Twins Site: Target Field -- Minneapolis, Minn.					
39	F51	(39) NCAA Football	USC at Utah Site: Rice-Eccles Stadium -- Salt Lake City, Utah (L)					College FB Extra		Fox Sports Live	Skip and Shannon: Undisputed		
43	SPIKE	(43) Cops	Cops	Cops	Cops	Cops	Cops	Kickboxing				(15) Cops	Cops
44	COM	(44) (2:20) Futurama	(55) Futura "The Birdbot of Ice-Catraz" (25) South Park			South Park	South Park	South Park	*** Joe Dirt 2: Beautiful Loser	(2015, Comedy) Brittany Daniel, Christopher Walken, David Spade.			
45	HIST	(45) Ancient Aliens	"The Other Earth"	Ancient Aliens	"The NASA Connection"	Ancient Aliens	"Aliens and the Undead"	Ancient Aliens	"Hidden Pyramids"	Ancient Aliens	"The Prototypes"	(05) Aliens	"Underground Aliens"
46	A&E	(46) The First 48	"Winter Games"	The First 48	"Kiss of Death"	The First 48	"Murder on Maiden Lane"	The First 48	"Blood on Bourbon"	The First 48	"Mother of Two"	(05) The First 48	
47	TLC	(47) Say Yes-Dress	"Say Yes-Dress"	To Be Announced		To Be Announced		To Be Announced		To Be Announced		To Be Announced	
48	DISC	(48) Bering Sea Gold	"Fear the Reaper"	Bering Sea Gold	"The Plague"	Bering Sea Gold	"Double Jeopardy"	Bering Sea Gold	"Backseat Diver" (N)	Backers	"Banked Against the Wall" (N)	Bering Sea Gold	"Backseat Diver"
49	NGEO	(49) Wicked Tuna	"Hostile Waters"	Survive the Tribe	"Rainforest Masters"	Live Free or Die	"Making Moves"	Live Free or Die	"Bring It Home"	Wicked Tuna	"Striking Distance"	Live Free or Die	"Bring It Home"
50	TNT	(50) Bones	"The Shot in the Dark"	Bones	"The Friend in Need"	*** Rush Hour 2	(2001, Action) Chris Tucker, Zhang Ziyi, Jackie Chan.	*** Rush Hour	(1998, Action) Chris Tucker, Tom Wilkinson, Jackie Chan.				
51	AMC	(51) *** Open Range	(2003, Western) Kevin Costner, Annette Bening, Robert Duvall.					*** Walking Tall	(04) Dwayne "The Rock" Johnson.	(45) *** Gridiron Gang	(06) Dwayne "The Rock" Johnson.		
52	USA	(52) Law & Order: Special Victims Unit	Modern Family	Modern Family	Modern Family	Modern Family	Modern Family	Modern Family	Modern Family	Modern Family	Modern Family	Modern Family	Modern Family
53	FOOD	(53) Diners, Drive-Ins	Diners, Drive-Ins	Diners, Drive-Ins	Diners, Drive-Ins	Diners, Drive-Ins	Diners, Drive-Ins	Diners, Drive-Ins	"Best of the West" (N)	Burgers, Brew (N)	Diners, Drive-Ins	Diners, Drive-Ins	Diners, Drive-Ins
54	HGTV	(54) House Hunters	House Hunters	House Hunters	House Hunters	House Hunters	House Hunters	House Hunters	House Hunters	House Hunters	House Hunters	House Hunters	House Hunters
56	FX	(56) ** The Purge	(2013, Horror) Lena Headey, Max Burkholder, Ethan Hawke.			** The Purge: Anarchy	(2014, Horror) Kiele Sanchez, Zach Gilford, Frank Grillo.			** The Purge: Anarchy	(2014, Horror) Kiele Sanchez, Zach Gilford, Frank Grillo.		
57	CNN	(57) Anderson Cooper 360	CNN Tonight With Don Lemon	CNN Tonight With Don Lemon		CNN Tonight With Don Lemon		This Is Life	"America's Busiest Coroners"	This Is Life	"The Satanists Next Door"	Life	"Sugar Daddies Sugar Babies"
58	FNC	(58) The Kelly File With Megyn Kelly	Hannity			The O'Reilly Factor		The Kelly File With Megyn Kelly				On the Record	
61	CNBC	(61) American Greed: Scam	Green	"Medical Gloves With Holes"		American Greed	"Six Feet Plunder"	American Greed	"Six Feet Plunder"	American Greed: Scam		Paid Program	Paid Program
63	BRAV	(63) (4:30) He's Just Not That Into You	*** The Wedding Planner	(01) Matthew McConaughey, Jennifer Lopez.				Wives of Melbourne	"Waterfront" (N)	** The Wedding Planner	(01) Matthew McConaughey, Jennifer Lopez.		
64	TCM	(64) Movie	*** I Never Sang for My Father	(70) Gene Hackman.	(15) *** Bite the Bullet	(1975, Western) Candice Bergen, James Coburn, Gene Hackman.		Z Nation	"A New Mission" (N)	Van Helsing	"Help Me" (P) Pt. 1 of 2 (N)	(55) Van Hel. (N)	(50) Z Nation
65	SYFY	(65) (4:00) Doom '05	*** G.I. Joe: Retaliation	(2013, Action) Dwayne Johnson, Adrianne Palicki, Channing Tatum.									
69	RFD	(69) Country Reporter	FarmHer	Joey Canyon	Roping and Riding	TruCountry	Rural Eve. News	Country's Family Reunion	"CFR 2010"	Country Reporter	Virginia Dreams	Time Life Library	

SATURDAY EVENING A - Charter Astoria/Seaside - L - Charter Long Beach SEPTEMBER 24

A	L	6 PM	6:30	7 PM	7:30	8 PM	8:30	9 PM	9:30	10 PM	10:30	11 PM	11:30
2	KATU	(2) (5:05) NCAA Football	Stanford at UCLA (L)			(2:20) Studio	Paid Program	MyDestination.TV	Paid Program	Wheel of Fortune	Jeopardy!	KATU News at 11	(35) Castle
4	KOMO	(4) (5:05) NCAA Football	Stanford at UCLA (L)			(2:20) Studio	Paid Program	MyDestination.TV	Paid Program	Wheel of Fortune	Jeopardy!	KOMO 4 News	(35) Full Measure
5	KING	(5) KING 5 News	Teen Kids News	Raw Travel	The Voice	"The Blind Auditions Premiere"				This Is Us	"Pilot"	KING 5 News	Sat. Night Live
6	KOIN	(6) KOIN Local 6 at 6	Weekend News	Entertainment Tonight	Weekend Steve Raible	Insider Weekend		Rush Hour		CrimeTime Saturday		KOIN 6 News @ 11	(35) Leverage
7	KIRO	(7) Weekend News	KIRO 7 News	Steve Raible	Insider Weekend			Rush Hour		CrimeTime Saturday		KIRO News	(35) Scandal
8	KGW	(8) Grant's Getaways	Straight Talk	The Chica Show	NoodleDoodle	The Voice	"The Blind Auditions Premiere"			This Is Us	"Pilot"	KGW News at 11	Sat. Night Live
9	KRCW	(9) Modern Family	Modern Family	WHL Hockey Seattle	Thunderbirds at Portland	Winter Hawks Site: Moda Center -- Portland, Ore.				Just for Laughs		KGW News at 10	(35) Person of Interest
10	KOPB	(10) Great British Baking	"The Final"	Travel: Art Wolfe	Stevens' Europe	Globe Trekker		Doc Martin	"Hazardous Exposure"	Father Brown	"The Brewer's Daughter"	Royal Wives at War	
12	KPTV	(12) (4:30) NCAA Football	Oklahoma State at Baylor (L)			To Be Announced				10 O'Clock News		Hell's Kitchen	
13	KPDx	(13) (5:30) MLS Soccer	Portland Timbers at Houston Dynamo (L)	Portland Timbers		Rizzoli & Isles	"Money Maker"	Rookie Blue	"Out of Time"	CSI: Miami	"Chain Reaction"	CSI: Miami	"Down to the Wire"
19	KCPQ	(19) (4:30) NCAA Football	Oklahoma State at Baylor (L)			Seahawks	Pawn Stars	Modern Family	Modern Family	Q13 News at 10	Seahawks	Hell's Kitchen	
20	TBS	(20) 2 Broke Girls	2 Broke Girls	2 Broke Girls	2 Broke Girls	Big Bang Theory	Big Bang Theory	Big Bang Theory	Big Bang Theory	Big Bang Theory	Big Bang Theory	Full Frontal	The Help ('11, Dra)
22	KZJO	(22) Bones	"The Princess and the Pear"	Element	"Evidence of Things Not Seen"	Person of Interest		Q13 News at 9	Seahawks	Most Wanted	Name Game	Name Game	Anger Manage
29	ESPN	(29) NCAA Football	(L)					SportsCenter	The day's news in the world of sports.	SportsCenter		Football Score.	
30	ESPN2	(30) (4:00) Hockey	Football Score.	(15) NCAA Football	(L)					(15) College Football	Scoreboard "College Football Final" (L)	E:60 Pictures	
31	NICK	(31) The Thundermans	The Thundermans	Henry Danger	Henry Danger	Game Shakers (N)		School of Rock (N)	The Thundermans	Full House	Full House	Friends	Friends
32	DISN	(32) Liv and Maddie	K.C. Undercover	Walk the Prank	Walk the Prank	Bizaardvark	Liv Maddie Cali	Bunk'd	K.C. Undercover	Gamer Guide (N)	Kirby Buckets (N)	Friends Whenever	K.C. Undercover
34	FAM	(34) (4:30) Charlie & the Chocolate Factory	(15) *** The Hunger Games	(2012, Action) Josh Hutcherson, Liam Neeson, Jennifer Lawrence.								*** The Hunger Games: Catching Fire	
35	FMC	(35) (5:00) Non-Stop	(14, Thrill) Liam Neeson.	(10) Non-Stop	(2014, Thriller) Julianne Moore, Michelle Dockery, Liam Neeson.	(20) FXM Presents	*** Elysium	(2013, Action) Jodie Foster, Sharlto Copley, Matt Damon.		Double Daddy	(2015, Drama) Brittany Curran, Cameron Palatas, Mollie Gray.		
36	LIFE	(36) Newlywed and Dead	(15) Samantha Ferris, Shenae Grimes-Beech.			House of Darkness	(2016, Thriller) Gunner Wright, Mykayla Sohn, Sara Fletcher.			Double Daddy	(2015, Drama) Brittany Curran, Cameron Palatas, Mollie Gray.		
38	ROOT	(38) (4:00) MLB Baseball	Sea./Min. (L)	Post-game		MLB Baseball Seattle Mariners at Minnesota Twins Site: Target Field -- Minneapolis, Minn.				Post-game		MLS Soccer	Packing vs Houston
39	F51	(39) (5:00) UFC Fight Night	(L)	UFC Fight Night	Featuring UFC matchups vs. Cristiano Justino vs. Lina Lansberg (L)					UFCPost-show "Cyborg vs. Lansberg" (L)	NHRA Drag Racing	Midwest Nationals	
43	SPIKE	(43) Cops	Cops	Cops	Cops	Cops	Cops	Jail: Big Texas	Cops	Cops	Cops	Cops	Cops
44	COM	(44) * Joe Dirt 2: Beautiful Loser	(2015, Comedy) Brittany Daniel, Christopher Walken, David Spade.			(50) Jeff Dunham: All Over the Map				(55) Jeff Dunham: Unhinged		Live From New York! (N)	
45	HIST	(45) American Pickers	"Everything Must Go"	American Pickers	"Coin-Op Kings"	American Pickers	"Hometown Pickin'"	American Pickers	"Frank's Birthday"	American Pickers	"The More You No"	(05) American Pickers	"Knuckleheads"
46	A&E	(46) The First 48	"Abandoned by the Bayou"	The First 48		The First 48: Killer Confessions		The First 48		The First 48		(05) First 48	"Blood on the Streets"
47	TLC	(47) Toddlers/Tiara	"Miss Sugarplum Fairy"	Tots/Tiara	"America's Treasured Dollz"	Toddlers & Tiaras	"Winter Beauties"	Toddlers & Tiaras	"Street Outlaws"	Tots/Tiara	"Universal Royalty, Texas"	Tots/Tiara	"America's Treasured Dollz"
48	DISC	(48) Blue Collar Backers	"Taco Hell"	Backers	"Banked Against the Wall"	Street Outlaws		Street Outlaws		Street Outlaws		Street Outlaws	
49	NGEO	(49) Inside the World's roughest Prisons	State Troop	"Meth, Knives, & Spears"		Alaska Troopers	"Head-on Collision"	Alaska Troopers	"Dead-End Deranged"	Alaska State Troopers	"Son and a Gun"	Alaska Troopers	"Dead-End Deranged"
50	TNT	(50) (4:30) *** The Hobbit: An Unexpected Journey	(12) Martin Freeman.	*** The Hobbit: The Desolation of Smaug	(2013, Adventure) Richard Armitage, Rachel Weisz, John Hannah, Brendan Fraser.					*** The Mummy Returns	(01, Adv) Rachel Weisz, John Hannah, Brendan Fraser.		
51	AMC	(51) NCIS	NCIS	NCIS	NCIS	NCIS	NCIS	NCIS	NCIS	NCIS "Charade"		Modern Family	Modern Family
52	USA	(52) Diners, Drive-Ins	Diners, Drive-Ins	Diners, Drive-Ins	"Ultimate Bacon Fest"	Diners, Drive-Ins	"Extra Helpings"	Diners, Drive-Ins	"Real-Deal Diners"	Diners, Drive-Ins	"Rockin' New Orleans"	Diners, Drive-Ins	"Best of the West"
53	FOOD	(53) Flip or Flop	Flip or Flop	Flip or Flop	Flip or Flop	Property Brothers		Property Brothers		BeachRe: "Renovation in South Florida"	Reno. "Picture-Perfect Kitchen Redo"	House Hunters	House Hunters
54	HGTV	(54) *** Neighbors	(2014, Comedy) Zac Efron, Rose Byrne, Seth Rogan.			*** Captain America: The Winter Soldier	(2014, Action) Scarlett Johansson, Sebastian Stan, Chris Evans.					Mike & Molly	Mike & Molly
56	FX	(56) Anthony Bourdain	"Borneo"	Anthony Bourdain	"Okinawa"	Anthony Bourdain	"Thailand"	Anthony Bourdain	"Manila: Philippines"	Anthony Bourdain	"Korea"	Anthony Bourdain	"Myanmar"
57	CNN	(57) Justice With Judge Jeanine	The Greg Gutfeld Show	Undercover Boss	"Dutch Bros. Coffee"	Undercover Boss	"PostNet"	Justice With Judge Jeanine		Under Boss	"Norwegian Cruise Line"</		