West Coast quake warning system now operational, with limits

PASADENA, Calif. (AP) — Automated alerts from the fledgling West Coast earthquake early warning system are ready to be used broadly by businesses, utilities, schools and other entities but not for mass public notification, officials said Wednesday.

"We're making a large change from a production prototype in pilot mode to an open-for-business operational mode," Doug Given, earthquake early warning coordinator for the U.S. Geological Survey, told a press conference at the California Institute of Technology.

The system being built for California, Oregon and Washington detects that an earthquake is occurring, quickly analyzes the data and sends out alerts that may give warnings of several seconds to a minute before strong shaking arrives at locations away from the epicenter.

That can be enough time to automatically slow trains, stop industrial processes, start backup generators, pause a surgery or send students scrambling for protection under desks and table.

Pilot programs involving select users have been underway for several years.

"The system is not yet finished, it's not complete, there is a lot of work to be done, however there is a lot of capability in the system as it exists today to the point it can definitely be used," Given said.

The sensor network is about 50 percent complete and funding has been secured to complete it in California in the next two years and get two-thirds of the way built out in the Pacific Northwest, he said.

Another key development occurred Sept. 28 when a new generation of ShakeAlert software was deployed.

Given said among its important improvements is reduction of false and missed alerts. False alerts typically have occurred when a large quake elsewhere in the world is detected by a sensor and is mistaken for a local temblor.

"The system performs now much better than it did in the past to the point where it is much more reliable," he said.

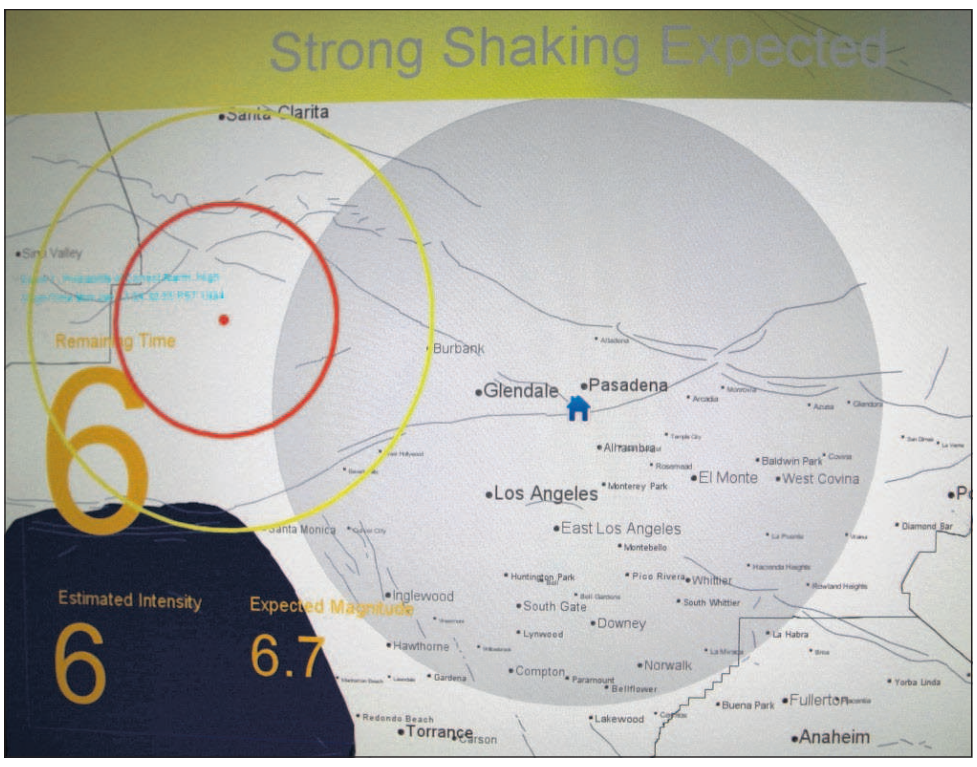
Officials now want to open ShakeAlert to a wide array of applications and are encouraging potential users to contact the USGS.

That doesn't yet include mass public notifications for several reasons, including the fact that current cellphone technology is too slow for timely delivery of notifications.

"Most folks expect to get the alerts on their phone, and that is of course ... the preferred way that we'd like to get it into everybody's hands," Given said. "Unfortunately the technology that is built into your phone to send you notifications was not designed with earthquake early warning in mind."

Rep. Adam Schiff, D-Calif., who has championed funding of the system, said it will also be important to make sure people know what the alerts mean, what to do when they get them, what not to do and to understand there may be false alarms.

"The education component is going to be very, very important, but this is a wonderful milestone," he said. "We can now see the end, I hope, in two or three years where the system is fully built out and funded and in operation."



AP Photo/Reed Saxon, File

This Sept. 13, 2011 file photo shows a computer replication of the 6.7 magnitude Northridge Earthquake of 1994 during a demonstration of an early earthquake warning system at the California Institute of Technology in Pasadena, Calif.

"We're making a large change from a production prototype in pilot mode to an open-for-business operational mode"

— **Doug Given,** earthquake early warning coordinator for the U.S. Geological Survey

BRIEFLY

Trump asks Turkey for audio, video evidence on Khashoggi

WASHINGTON (AP) — The U.S. has asked Turkey for a recording that could reveal gruesome details of what happened to Saudi journalist Jamal Khashoggi, President Donald Trump said Wednesday. But he's not confirming there is any such recording, as reported by Turkish media, and he's continuing to urge patience while Saudi Arabia says it's investigating.

Asked about a recording described by the Turkish newspaper *Yeni Safak*, Trump said, "We've asked for it, if it exists." At another point, he said, "I'm not sure yet that it exists."

Trump, who threatened punishment for Saudi Arabia when Khashoggi's disappearance first came to light two weeks ago, has repeatedly noted Saudi leaders' denials since then and insisted the U.S. must know the facts before taking action.

But when asked if he was "giving cover" to the Saudi leaders, he said Wednesday that he was not.

"No, not at all," he declared.

Turkish crime-scene investigators searched the home of the Saudi consul general in Istanbul on Wednesday in the disappearance of Khashoggi, and a pro-government newspaper published a gruesome account of the journalist's alleged slaying.

As Saudi Arabia's green national flag flapped overhead, forensics teams entered the residence, only 1.2 miles from the consulate where Khashoggi vanished Oct. 2 while trying to pick up paperwork to get married. It was the second-such extraordinary search of a site considered under international law to be sovereign Saudi territory after investigators spent hours in the consulate earlier this week.

The account published in the *Yeni Safak* newspaper alleged that Saudi officials cut off Khashoggi's fingers and then decapitated him at the consulate as his fiancée waited outside.

Student gunman kills 19, wounds 50 at school in Crimea

MOSCOW (AP) — An 18-year-old student strode into his vocational school in Crimea, a hoodie covering his blond hair, then pulled out a shotgun and opened fire on Wednesday, killing 19 students and wounding more than 50 others before killing himself.

It wasn't clear what prompted Vladislav Roslyakov, described as a shy loner, to go on the rampage. A security camera image carried by Russian media showed him calmly walking down the stairs of the school in the Black Sea city of Kerch, the shotgun in his gloved hand.

"He was walking around and shooting students and teachers in cold blood," said Sergei Aksyonov, the regional leader in Crimea.

Officials said the fourth-year student killed himself in the library of the Kerch Polytechnic College after the attack. His mother, a nurse, was helping to treat victims at a local hospital after the shootings, unaware yet that her son was accused of the rampage and was already dead.

Such school shootings are rare, and Wednesday's attack was by far the worst by a disgruntled student in Russia, which annexed the Crimean Peninsula from Ukraine in 2014. The bloodbath raised questions about school security in the country; the Kerch Polytechnic College had only a front desk with no security guards.

THURSDAY AFTERNOON & EVENING — OCTOBER 18, 2018

			12 PM	12:30	1 PM	1:30	2 PM	2:30	3 PM	3:30	4 PM	4:30	5 PM	5:30	6 PM	6:30	7 PM	7:30	8 PM	8:30	9 PM	9:30	10 PM	10:30	11 PM	11:30
FOX	(11) KFFX	11	Outback Advent.	Divorce Court	Steve!		Judge Mathis (N)		The People's Court		Paid Program	NFL Pre-game (L)	:20 NFL Football Denver Broncos at Arizona Cardinals Site: University of Phoenix Stadium -- Glendale, Ariz. (L)							Last Man St.	2 Broke Girls	2 Broke Girls	First at Ten (N)	:35 Dateline "Unspeakable"		:35 Mike & Molly
FOX	KPTV	3	News	OutSpace	Wendy Williams		Truth	Truth	People's Court		Judy	PreGame	:20 NFL Football Denver Broncos at Arizona Cardinals (L)							News	Feud	Feud	News (N)		News	Page Six
CBS	(19) KEPR	2	Funn-yAsk	Bold & B.	The Talk (N)		Let's Make a Deal		Dr. Phil		Judge Judy	Judge Judy	News (N)	News (N)	News (N)	Inside Edition	The Big Bang	TheSi-mpsons	The Big Bang (N)	Sheldon (N)	Mom (N)	Murphy B. (N)	S.W.A.T. "Saving Face" (N)		News (N)	:35 Colbert
CBS	KOIN	19	Local 6	B & B	The Talk (N)		The 700 Club		Dr. Phil		News (N)		News	News	News	News	Extra	ET (N)	BBang	Sheldon	Mom (N)	Murphy	S.W.A.T. (N)		News	Colbert
NBC	(25) KNDU	6	TMZ	Paid Program	Days of Our Lives		The Wendy Williams Show		Daily Mail TV	Daily Mail TV	Ellen DeGeneres Kym Douglas (N)		News	News (N)	News (N)	Family Feud	Wheel (N)	Jeop-ardy! (N)	Super-store (N)	GoodP-lace (N)	W&G-race (N)	I Feel Bad (N)	Law&Order: SVU "Accredo" (N)		News (N)	:35 Tonight
NBC	KGW	8	News	Paid	Days of Our Lives		The Dr. Oz Show		E.DeGeneres (N)		KGW News (N)		News	News	KGW News (N)		Cassidy	InsEd.	Super	GoodPla	WGrace	IFeelBad	SVU "Accredo" (N)		News	Tonight
ABC	(42) KVEW	4	GMA Day (N)		General Hospital		The Doctors		The Rachael Ray Show		The Dr. Oz Show		News (N)	News (N)	News (N)	News (N)	ET (N)	Extra	Charlie Brown	Toy Story	Station 19 "Home to Hold Onto" (N)		With Murder "It's Her Kid" (N)		News (N) /:05 Kimmel (N)	
ABC	KATU	5	GMA Day (N)		General Hospital		Afternoon Live		Million?	Million?	KATU News (N)		News	News	News (N)		Jeop. (N)	Wheel	ChBrown	ToyStory	Station 19 (N)		With Murder (N)		News	Kimmel
PBS	(31) KTNW		Amanpour & Company		Test Kitchen	Knit and Crochet	Esmon-de Tech.	Pinka-Peter	Nature Cat	Ready Jet Go!	Wild Kratts	Odd Squad	Arthur	Business (N)	PBS NewsHour (N)		World News	Neil Diamond: Hot August Night III			Joe Bonamassa: British Blues Explosion Live			Autumnwatch New England (N)		Trave-logue
PBS	(59) OPB	13	Archit-ecture	Sara's Meals	A Chef's Life	Wild Nevada	Nature Cat	Cat in the Hat	Ready Jet Go!	Arthur	Odd Squad	Odd Squad	Wild Kratts	Wild Kratts	Dest.C-raft	Business (N)	PBS NewsHour (N)		Oregon Art Beat	Oregon (N)	Mids-omer M.	:50 Midsomer M. "The Black Book"		:35 Masterpiece Classic "The Child in Time"		

			12 PM	12:30	1 PM	1:30	2 PM	2:30	3 PM	3:30	4 PM	4:30	5 PM	5:30	6 PM	6:30	7 PM	7:30	8 PM	8:30	9 PM	9:30	10 PM	10:30	11 PM	11:30
CABLE	A&E	52	The First 48		The First 48		First 48 "Missing"		The First 48		The First 48		The First 48		The First 48		The First 48		The First 48		The First 48 (N)		Nightwatch N (N)		:05 Nightwatch N	
CABLE	AMC	60	Halloween II		Halloween III: Season of the Witch				Halloween 4: The Return of Mic...				Halloween 5: The Revenge of M...				Halloween: The Curse of Michael...				★★★★★ Halloween				:05 Halloween...	
CABLE	ANPL	24	The Vet Life		Mountain Vet (N)		Pit Bull Parolees		Pit Bull Parolees		Treehouse		Treehouse		Northwest Law		Northwest Law		Northwest Law		Northwest Law		Northwest Law		Northwest Law	
CABLE	CMT	43	Home I.	Home I.	Home I.	Home I.	Last Man	Last Man	Last Man	Last Man	Last Man	Last Man	Last Man	Last Man	Last Man	Last Man	CowboyCheer. (N)		★★★ Mr. and Mrs. Smith ('05, Act) Brad Pitt.						Cowboys Cheer.	
CABLE	CNBC	72	Closing Bell				Fast Money		Mad Money		Shark Tank		Shark Tank		Shark Tank		Beyond the Tank		Shark Tank		Shark Tank		Beyond the Tank		Paid	Paid
CABLE	CNN	68	CNN Newsroom		The Lead		The Situation		The Situation		OutFront		A. Cooper 360		Cuomo		Town Hall (L)		CNN Tonight		CNN Tonight		A. Cooper 360		Cuomo	
CABLE	DISC	51	Almost Got Away		Naked and Afraid		Naked and Afraid		Naked "Hangry"		Naked and Afraid		Naked and Afraid "Love at First Fight"				Naked and Afraid		Naked and Afraid "Razor Sharp Shark Survival" (N)						Naked and Afraid	
CABLE	DISN	26	Mickey M.		DuckTal.	BigCity	Gravity	CoopC.	Jessie	Transyl	StuckM.	StuckM.	Raven's.	Raven's.	Bunk'd	Bunk'd	Bunk'd	Bunk'd	Raven's.	Raven's.	StuckM.	StuckM.	Bunk'd	Bunk'd	Raven's.	Raven's.
CABLE	ESPN	33	NBA: The Jump (L)		H.Noon	Highly?	Horn (N)	Interrupt	SportsCenter (N)		FirstTake (L)		Football C. (L)		NCAA Football Stanford at Arizona State (L)						SportsCenter (N)		SportsCenter (N)		SportsCenter (N)	
CABLE	ESPN2	34	NFL Live (N)		Talk (L)		Football	Highly?	Horn (N)	Interrupt	TrueSou.	TrueSou.	Basketball: A Love Story				Boxing Golden Boy (L)				Tonight	Interrupt	Marty&McGee (N)		The Jump (N)	
CABLE	FNC	66	Shepard Smith		Your World		The Five		Special Report		The Story		Tucker Carlson		Hannity		Ingraham Angle		Fox News		Tucker Carlson		Hannity		Ingraham Angle	
CABLE	FOOD	61	Cake	Cake	Pioneer	Pioneer	BeatFlay	BeatFlay	BeatFlay	BeatFlay	BeatFlay	BeatFlay	BeatFlay	BeatFlay	BeatFlay	BeatFlay	Chopped		Halloween Wars		Chopped		BeatFlay	BeatFlay	Truck	BeatFlay
CABLE	FREE	32	The Boat	The Boat	Middle	Middle	Middle	Middle	Middle	Middle	Sweeney Todd: The Demon Barber of Flee...						★★★ Dark Shadows ('12, Fant) Johnny Depp.				★★★★ The Addams Family				The 700 Club	
CABLE	FX	65	Movie	Mother	Mother	Mother	Mother	Mike&M.	Mike&M.	Mike&M.	★★★ The Purge: Anarchy				★★★★ Don't Breathe Jane Levy.				The Huntsman: Winter's War					The Huntsman: Winter...		
CABLE	GOLF	88	LPGA Golf Buick Shanghai			Driver "Tour Pros"	PGA Golf CJ Cup Site: Nine Bridges -- Jeju Island, Korea									Golf C.	PGA Golf CJ Cup Site: Nine Bridges -- Jeju Island, Korea (L)								PGA Golf CJ Cup	
CABLE	GSN	76	The Chase		Caroline	Feud	Am.Says	Am.Says	Feud	Feud	Feud	Feud	Feud	Feud	Feud	Feud	Feud	Feud	CashCb	CashCb	Feud	Feud	Am.Says	Reaction	Idiotest	Idiotest
CABLE	HALL	87	★★★★ You Again Kristen Bell.				A Royal Winter Merritt Patterson.				Campfire Kiss Danica McKellar.				One Winter Weekend Taylor Cole.				★★★ October Kiss Ashley Williams.				G. Girls	G. Girls	G. Girls	G. Girls
CABLE	HGTV	62	Fixer Upper		Flippers	Flippers	Flippers	Flippers	Flippers	Flippers	FlipFlop	FlipFlop	FlipFlop	FlipFlop	FlipFlop	FlipFlop	FlipFlop	FlipFlop	FlipFlop	FlipFlop	FlipATL	FlipATL	H.Hunt	House	H.Hunt	H.Hunt
CABLE	HIST	50	Return of Shelby		Pawn S.	Pawn S.	Pawn S.	Pawn S.	Pawn S.	Pawn S.	Pawn S.	Pawn S.	Pawn S.	Pawn S.	Pawn S.	Pawn S.	Mountain Men		Mountain Men		Mountain Men (N)		:05 Swamp (N)		:05 Mountain Men	
CABLE	LIFE	29	The First 48		The First 48		The First 48		Grey's Anatomy		Grey's Anatomy		Grey's Anatomy		Grey's Anatomy		Grey's Anatomy		★★★★ The Holiday ('06, Rom) Cameron Diaz.						:05 Married	
CABLE	NICK	27	Machines	Machines	PAW	PAW	PAW	PAW	Sponge	Sponge	Sponge	Sponge	Loud H.	Loud H.	Loud H.	Loud H.	Loud H.	TheBurea	Sponge	Sponge	Alvin & the Chipmunks: The Sq...				Friends	Friends
CABLE	ROOT	37	Paid	Paid	The Dan Patrick Show (N)						H.S. Football						H.S. Football (L)						Fantasy FB (N)		H.S. Football	
CABLE	SPIKE	42	Bar Rescue		2½Men	2½Men	2½Men	2½Men	2½Men	2½Men	Mom	Mom	Mom	Mom	Mom	Mom	Friends	Friends	Friends	Friends	★★★★★ The Shawshank Redemption Tim Robbins.					
CABLE	SYFY	67	CSI: Crime Scene		★★ Resident Evil Milla Jovovich.				★★ Resident Evil: Extinction				★★★ Resident Evil: Apocalypse				Drive Angry ('11, Act) Nicolas Cage.				★★ Knock Knock Keanu Reeves.				:15 Sorority R...	
CABLE	TBS	59	Friends	Friends	Friends	Friends	Friends	Friends	Friends	Seinfeld	Post Pre-game (L)		MLB Baseball American League Championship Series Bos./Hou. (L)							Pstgame	TheGuest	Fam.Guy	Fam.Guy	Am.Dad	Am.Dad	Am.Dad
CABLE	TCM	56	Movie	Son of the Bo...		:45 ★ Stage to Chino			★★★★★ Stagecoach John Wayne.				★★★★★ Born Yesterday				★★★★★ Singin' in the Rain				★★★★★ Pillow Talk Doris Day.				Forever Darling	
CABLE	TLC	49	L.I. Medium		L.I. Medium		Gypsy Wedd		Gypsy Wedd		Four Weddings		Four Weddings		90 Day Fiancé "Tell All" (N)				Home Sextuplets		Home Sextuplets		Sextuplets (N)		Home Sextuplets	
CABLE	TNT	57	Super. "Plush"		Bones		Bones		Bones		Bones		NBA Basketball Chicago vs Philadelphia (L)				NBA Basketball L.A. Lakers vs Portland (L)						Inside the NBA (L)		NBA Basketball	
CABLE	UNI	21	Notic.	Vecinos	LIKE, La Leyenda		Rosa Guadalupe		El Vuelo de la V		El gordo y la flaca		Primer impacto		P. Luche	Notic.	LIKE, La Leyenda		Rosa Guadalupe		Mi Marido Tiene		La piloto		Impacto	Noticie.
CABLE	USA	58	NCIS "Dog Tags"		NCIS "Recoil"		NCIS "About Face"		NCIS		NCIS		NCIS "Heartland"		NCIS		NCIS		NCIS		NCIS		NCIS		The Purge	
CABLE	WE	118	Law & Order: C.I.		Law:CI "Poison"		Law & Order: C.I.		Law & Order: C.I.		Growing Up Hip H		Growing Up Hip H		Growing Up (N)		Growing Up Hip H		Growing Up Hip H		Growing Up Hip H		Growing Up Hip H		Growing Up Hip H	
CABLE	WGN		In Heat of Night		Blue Bloods		Blue Bloods		Blue Bloods		Last Man	Last Man	Last Man	Last Man	Last Man	Last Man	Last Man	Last Man	Last Man	Last Man	Married	Married	Married	Married	Mother	Mother
PREMIUM	HBO	518	:55 ★★ Romeo and Juliet				:55 ★★★ Dances With Wolves ('90, Epic) Kevin Costner.						RoadTo	1stLook	FlightOfTheConchords			News	★★★ Goodfellas ('90, Cri) Ray Liotta.					The Deuce		Pod Save
PREMIUM	HBO2	520	Being John M...		:10 FlightOfTheConchords			:40 ★★★ Kiss Kiss Bang Bang				RXEarly	:05 ★★★ The Shape of Water				:10 ★★ Maze Runner: The Death Cure					:35 R.104	:05 R.104	The Shop	RoadTo	
PREMIUM	HBO3	521	★★★ Dolores Claiborne					:15 Ferrell Field		:05 Darkest Hour Gary Oldman.			:10 ★★ The Full Monty			:45 Phantom Thread Daniel Day-Lewis.					★★★ Dolores Claiborne				:15 Three Bil...	
PREMIUM	MAX	549	Movie		:50 ★★★ Kong: Skull Island				:50 ★★★ The Hangover Ed Helms.			★★ Addicted to Love			:15 Unforgettable Rosario Dawson.				★★★ The Client Susan Sarandon.				:05 ★★ High Crimes			
PREMIUM	SHOW	578	★★★ Titanic Leonardo DiCaprio.					:15 Home Again Reese Witherspoon.			TheCirc.	A Dog's Purpose			:15 Shameless		:15 ★★★ Titanic ('97, Dra) Kate Winslet, Leonardo DiCaprio.							Kidding	Gigolos	Gigolos
PREMIUM	STARZ	621	All the Money in the W...			:45 ★★★ Sin City Mickey Rourke.				:50 ★★ Inferno ('16, Myst) Tom Hanks.					:55 Next Day...		:20 ★★★ Resident Evil: Afterlife				★★ Mission: Impossible				:55 Mission: Impossible II	
PREMIUM	STZENC	644	:10 ★★ Vacancy			:35 ★★★ Ghost Patrick Swayze.				:45 ★★ Runaway Bride				:45 ★★★ Payback Mel Gibson.				★★ April Fool's Day			★★★ Ghost Patrick Swayze.				:10 Into the Bl...	

THURSDAY LATE NIGHT & FRIDAY MORNING

			12 AM	12:30	1 AM	1:30	2 AM	2:30	3 AM	3:30	4 AM	4:30	5 AM	5:30	6 AM	6:30	7 AM	7:30	8 AM	8:30	9 AM	9:30	10 AM	10:30	11 AM	11:30
FOX	(11) KFFX	11	:05 Mike & Molly	:35 Two 1/2 Men	:05 CR TV Featuring a selection of products and services.								CR TV		AgDay	The Game	Good Day (N)				Provi-dence	Provi-dence	Live PD: Patrol	Live PD: Patrol	Chicago P.D. "An Honest Woman"	
FOX	KPTV	3	TMZ Live!		Celebr-ity Page	2 Broke Girls	2 Broke Girls	King of Queens	Paid Program	Paid Program	This Minute	News (N)	Good Day Oregon at 5 a.m. (N)		Good Day Oregon at 6 a.m. (N)		Good Day Oregon (N)				MORE Good Day Oregon (N)		MORE Good Day Oregon		The Rachael Ray Show	
CBS	(19) KEPR	2	The Late Show	:35 James Corden		:35 Paid Program	:05 CBS Overnight News					Morning News	News (N)	News (N)	News (N)	News (N)	CBS This Morning (N)				Pickler & Ben		The Price Is Right		The Young and the Restless	
CBS	KOIN	19	The Late Show	:35 James Corden		:35 News	:05 CBS Overnight News				News (N)	News (N)	KOIN 6 News at 5 a.m. (N)		KOIN 6 News at 6 a.m. (N)		CBS This Morning (N)				Let's Make a Deal		The Price Is Right		The Young and the Restless	
NBC	(25) KNDU	6	Tonight Show	:35 Late Night With Seth Meyers		:35 Last Call	:05 Today Show		Early Today	Early Today	Early Today	Wake Up Northwest (N)					Today Show (N)				Megyn Kelly Today (N)		Today (N)		Millio-naire?	HotB-ench (N)
NBC	KGW	8	Tonight Show	:35 Late Night With Seth Meyers		:35 Last Call	:05 Steve!		Early Today	Early Today	Early Today	News (N)	KGW News at Sunrise (N)		KGW News at Sunrise (N)		Today Show (N)				Megyn Kelly Today (N)		Today (N)		Daily Blast (N)	Daily Blast
ABC	(42) KVEW	4	:10 Nightl.	:40 This Minute	:05 Pat. Court	:35 ABC World News Now Featuring the morning's top stories and breaking news from around the world.						America Morning	News (N)	News (N)	News (N)	News (N)	Good Morning America (N)				Live Shaquille O'Neal		The View		Paid Program	This Minute
ABC	KATU	5	Kimmel (N)	:35 Nightl.	:05 Paid Program	:35 Paid Program	:05 ABC World News Now				News (N)	News (N)	KATU News This Morning (N)				Good Morning America (N)				AM Northwest		The View		Live Shaquille O'Neal	
PBS	(31) KTNW		Doc Mart "Mother Knows Best"		Autumnwatch New England		Doctor Blake "Sorrow Songs"		The Gene Doctors		Nature "The Last Orangutan Eden"		Nova "Addiction"		Esmon-de Tech.	Happy Yoga	Ready Jet Go!	The Cat in the Hat		Super WHY!	Dinosa-ur Train	Peg + Cat	Daniel Tiger	Halloween Boo Fest		Sit and Be Fit
PBS	(59) OPB	13	PBS NewsHour		Nature "The Last Orangutan Eden"		Nova "Addiction"		Neanderthal		Home Truth		Nightly Business	World News	Esmon-de Tech.	Wild Kratts	Nature Cat	Halloween Boo Fest		Daniel Tiger	Daniel Tiger	Splash & Bubbles	Sesame Street	Super WHY!	Dinosa-ur Train	Bob the Builder