

2018 FUEL CONDITIONS AND FIRE





Rosita north of river



Rosita north of river



MULLINAW CROSSING



Cas Johnson Alibates



Cas Johnson Palo Duro



Plum Crk Lower CG



PLUM Crk Upper CG



Fuels Conditions around Fritch TX

- Four fuels group conditions
 - Grass
 - GR7 loading of equal 7.5 tons per acre
 - GR4 loading of equal 3 tons per acre
 - GR2 loading of equal 2 tons per acre
 - Grass and Shrub
 - GS2 loading of equal to 3 tons per acre



Inputs: SURFACE, SIZE, IGNITE

Description GR 7

Fuel/Vegetation, Surface/Understory

Fuel Model GR7

Fuel Moisture

1-h Moisture % 5, 4, 3, 2, 1

10-h Moisture % 6

100-h Moisture %

Live Herbaceous Moisture % 80

Live Woody Moisture %

Weather

Midflame Wind Speed (upslope) mi/h 5, 10, 15, 20, 25

Air Temperature oF 75

Fuel Shading from the Sun % 0

Terrain

Slope Steepness % 0

Fire

Elapsed Time h 1

Run Option Notes

Maximum reliable effective wind speed limit IS imposed [SURFACE].

Calculations are only for the direction of maximum spread [SURFACE].

Fireline intensity, flame length, and spread distance are always

for the direction of the spread calculations [SURFACE].

Wind is blowing upslope [SURFACE].



GR 7

Surface Rate of Spread (maximum) (ch/h)

1-h Moisture %	Midflame Wind Speed (upslope) mi/h				
	5	10	15	20	25
5	68.8	183.3	328.6	498.5	689.2
4	72.3	192.5	345.1	523.4	723.8
3	77.1	205.4	368.3	558.6	772.5
2	83.8	223.2	400.2	607.1	839.4
1	92.8	247.1	443.0	671.9	929.1



GR 4

Surface Rate of Spread (maximum) (ch/h)

1-h Moisture %	Midflame Wind Speed (upslope) mi/h				
	5	10	15	20	25
5	45.4	121.6	218.1	330.7	361.3
4	47.6	127.3	228.4	346.3	399.8
3	50.6	135.5	243.1	368.6	460.4
2	54.9	146.9	263.4	399.5	552.2
1	60.6	162.1	290.8	440.9	609.5



GR 2

Surface Rate of Spread (maximum) (ch/h)

1-h Moisture %	Midflame Wind Speed (upslope) mi/h					
	5	10	15	20	25	30
5	22.1	59.1	66.6	66.6	66.6	66.6
4	23.1	61.7	73.3	73.3	73.3	73.3
3	24.6	65.6	84.0	84.0	84.0	84.0
2	26.6	71.0	100.6	100.6	100.6	100.6
1	29.3	78.2	125.9	125.9	125.9	125.9



GS 2

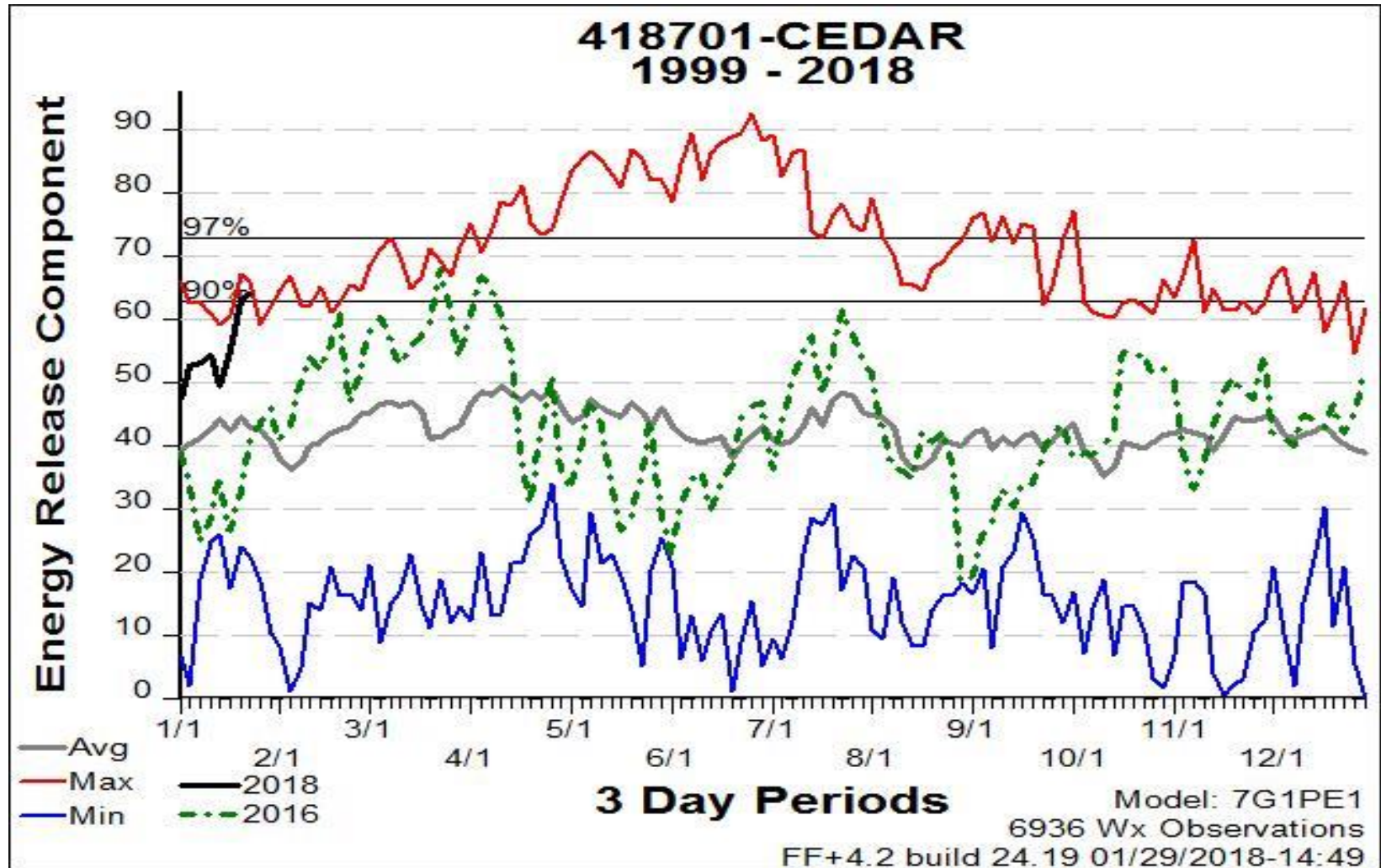
Surface Rate of Spread (maximum) (ch/h)

1-h Moisture %	Midflame Wind Speed (upslope) mi/h				
	5	10	15	20	25
5	19.1	50.8	91.0	138.0	151.4
4	20.2	53.8	96.3	146.0	172.8
3	21.2	56.6	101.4	153.7	194.5
2	22.5	59.9	107.3	162.7	222.2
1	24.1	64.2	115.0	174.3	240.9

CHAINS PER HOUR TO FT PER MIN AND MPH

CH/H	MPH	FT/H	FT/M	FT/SEC
50	.6	3300	55	1
100	1.25	6600	110	1.25
200	2.5	13200	220	2.5
400	5	26400	440	5
600	7.5	39600	660	11
800	10	52800	880	15
1000	12.5	66000	1100	18
1200	15	79200	1320	20
1400	17.5	92400	1540	26
1600	20	105600	1760	29
1800	22.5	118800	1980	33
2000	25	132000	2200	37

ERC GRAPH



High Plains ERC

