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POTENTIAL IMPACTS OF WILDFIRES IN
THE RIO GRANDE WATERSHED:
PROBABILITY OF OCCURRENCE OF
FUTURE FIRE EVENTS IN THE RISK AREA
OF EL RITO WATERSHED

Zakia Afrin

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POTENTIAL IMPACTS OF WILDFIRES IN THE RIO GRANDE
WATERSHED: PROBABILITY OF OCCURRENCE OF FUTURE FIRE
EVENTS IN THE RISK AREA OF EL RITO WATERSHED

by

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THESIS

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DEDICATION

This thesis work is dedicated to my husband Mirza, my parents, parents-in-law, younger brother, and brothers and sisters-in-law who have constantly supported me and whose good examples have taught me to work hard for the things that I aspire to achieve. I am truly thankful for having all of you in my life.

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ABSTRACT

The main goals of this paper were to improve the understanding of the hydro-geomorphic effects of wildfires in the Rio Grande headwaters and identify the El Rito watershed as a fire prone risk area. To achieve the goals the researcher has conducted an extensive literature review about the impacts of wildfires in the Rio Grande watershed and built a system dynamic (SD) model to project the risk of fire occurrences in the El Rito watershed. The Powersim tool was used to simulate the probability of fire occurrence in the study area from 1970 to 2050 following the logit regression equation based on climate change variables and the result showed an increasing trend of the occurrence of fires in a monthly basis. This method will help fire managers make effective decisions by taking actions to improve the efficiency of wildfire suppression efforts during severe fire seasons.

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CHAPTER 1

INTRODUCTION

1.1 Background

Global wildfire activity has risen sharply during the past few decades, and projections indicate that fire activity will continue to increase in the coming decades (Pechony & Shindell, 2010; Allen et al., 2010). In the desert southwest of the United States, wildfire alters the hydrologic response of watersheds, greatly increasing the magnitudes and frequency of flash floods. During the middle to late 1880s Euro-American settlement greatly altered forest and watershed conditions in the Southwest U.S. (Covington & Moore, 1994), especially in New Mexico and Arizona. Historic livestock grazing and fire suppression significantly reduced the frequency of wildfires in forest types that historically experienced frequent low-severity surface fires and promoted the development of unnaturally dense stands of stressed young trees. Later on, overgrazing reduced tree growth and increased mortality, decreased herbaceous and shrub forage quality and quantity, and increased fuel loads and vertical fuel continuity (Allen et al., 2002). Fuels and potential fire behavior in forests burned by wildfire differ over time with or without logging. Post fire logging relocates tree crown materials where it becomes available fuel for ignition, changes fuel complex and increases the immediate risk of a severe reburn. Trees can be “whole tree harvesting”, different size classes of trees can be removed and remaining fine fuels can be treated or not. These actions affect the amount and timing of fuels reaching the ground, as well as the successional trajectory. All of these alterations resulted in the higher severity and destructive potential of wildfires starting from the 1970s. This condition threatens the remaining large trees

through competition and by fueling increasingly extensive crown fires. Further, the hydrologic cycle has been modified in these more densely forested watersheds (Allen et al., 2002).

1.2 Goals and Objectives of the Study

Goals:

The goals of this research were to improve the understanding of the risks and impacts of wildfires on key hydrologic process of the Rio Grande headwaters. In order to reach the goals, two objectives were achieved to fulfill the research.

Objectives:

The objectives of this study were to:

- i) Synthesize the previous research on the impacts of wildfires on hydrologic and geomorphic variables in the Southwestern U.S especially in the Rio Grande watershed.
- ii) Investigate the factors (e.g. vegetation, human activities, climate etc.) contributing to wildfire risks within the El Rito Watershed.

These objectives were achieved by conducting an extensive literature review and building a system dynamics model to investigate the interactions of the climate driven hydrologic variables with the risk of wildfires occurrence.

1.3 Study Area

For purposes of this research, El Rito watershed is considered as the study area. It is located in Rio Arriba County within the Rio Chama Watershed, which is the northern portion of New Mexico (Map 1: Appendix I). The total area of the study site is 46,611

acres or 188 square kilometers. The elevation of the area ranges approximately from 6,500 feet (1,981 meter) to 10,000 feet (3,048 meter). This is a snow dominated mountainous, sedimentary watershed where groundwater/surface-water interactions are very complex and an overall losing trend in discharge emerges with increasing drainage area (Emile Elias, Mejia, Rango, & Steele, 2013). Some wildfires events have occurred in the last 40 years. Recently the wild land urban interface (WUI) has covered a significant portion of it, which is also alarming for the future fuel loads and wildfire events.

CHAPTER 2

LITERATURE REVIEW: TRENDS AND DRIVING FACTORS OF WILDFIRES IN THE SOUTHWEST U.S.

2.1 Climate & Drought Condition

New Mexico saw an increase in both the number of fires and the size of areas burned over the past several decades (Figure 1). Since 2000, the size of the largest fire recorded in New Mexico has more than quintupled. The region has also experienced a strong trend of rising drought severity (Cleetus & Kranti, 2014). Extreme drought and heat has helped create the condition of historic wildfires across New Mexico.

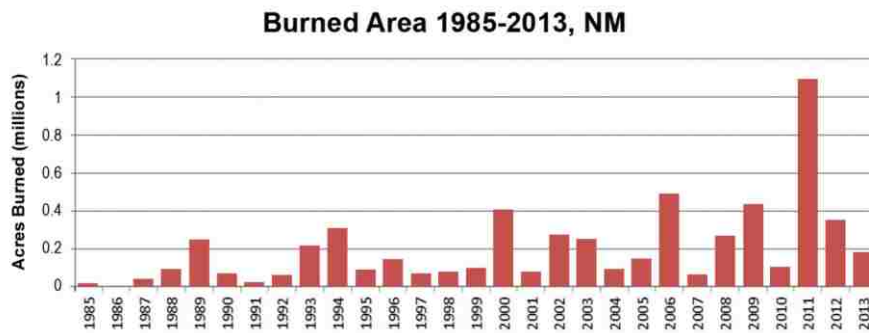


Figure 1: The record of wildfires from 1985 to 2013 in New Mexico, <http://nmconservation.org/rgwf/plan.html>

Tree ring studies have demonstrated a strong correlation between drought conditions and stress placed on forest ecosystems over the past several centuries and in recent decades (Sheppard et al., 2002). New Mexico has been affected by extended droughts over the period of recorded history. The duration, areal extent, and severity of these events can be described from streamflow records collected at gaging stations on the state's rivers and streams.

For example, the last 100 years of data (1914-2014) is summarized in the form of mean annual flows at the USGS Rio Grande at Embudo Gage (Figure 2). Red bars represent years with mean annual streamflow below the 100-year mean streamflow (indicated in green) and the blue bars represent years with above average mean annual streamflow. The record reveals extended periods of below average streamflow. It is notable that only 2 out of the past 14 years have been above average.

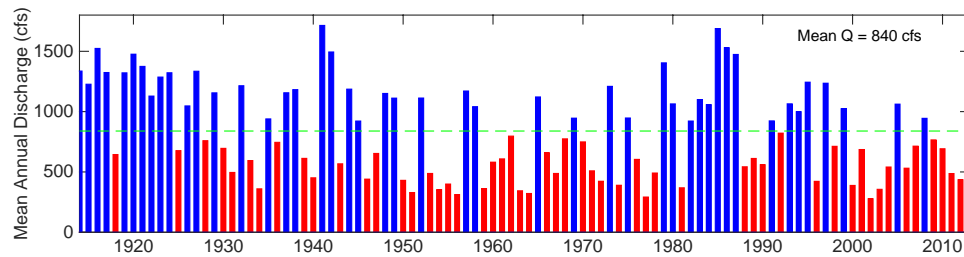


Figure 2: Mean annual flows at the USGS Rio Grande at Embudo Gage
 Courtesy: Dr. Mark Stone

As the Southwest becomes warmer and drier, widespread tree mortality has caused forest composition and structure to change substantially (USDA, 2012). Temperature changes have a marked effect on forest vegetation because of their direct impact on moisture availability – either because of an increased rate of evaporation or a more rapid snowmelt. Higher summer temperature coupled with earlier spring snowmelt increase the frequency, length and severity of wildfires (Westerling et al., 2006). Spring snowmelt provides soil moisture, and therefore an earlier melt leads to drier summer conditions. Since the late 20th century, wildfire activity has increased steadily (Pechony & Shindell, 2010; Allen 2007). In this region the incidence of large wildfires in forests increased in the mid-1980s (hereafter, wildfires refers to large fire events (>20,000 acres) within forested areas only). Research showed that there was an increase in the average wildfire

season of 78 days (64%) when comparing the period of 1987 to 2003 with the period of 1970 to 1986 (Westerling et al., 2006). Roughly half of that increase was due to earlier ignitions, and half to later control (48% versus 52%, respectively) (Westerling et al., 2006).

The correlation between drought conditions and wildfires in New Mexico was observed over the past several decades (Park Williams et al., 2012). Figure 3 summarizes some examples of these data including snowfall, drought condition, streamflow, and areal extent of wildfires. Obviously, the period since the year 2000 has been exceptionally dry with only the year 2005 reported as above average in snow water equivalent (SWE), Palmer Drought Severity Index (PDSI), and stream discharge (Q). Likewise, 7 out of the past 8 years have included above average wildfire activity with respect to area burned. The two largest wildfires in New Mexico’s recorded history have occurred since 2011 - Las Conchas Fire in 2011 (156,000 acres) and Whitewater-Baldy Complex Fire in 2012 (297,000 acres).

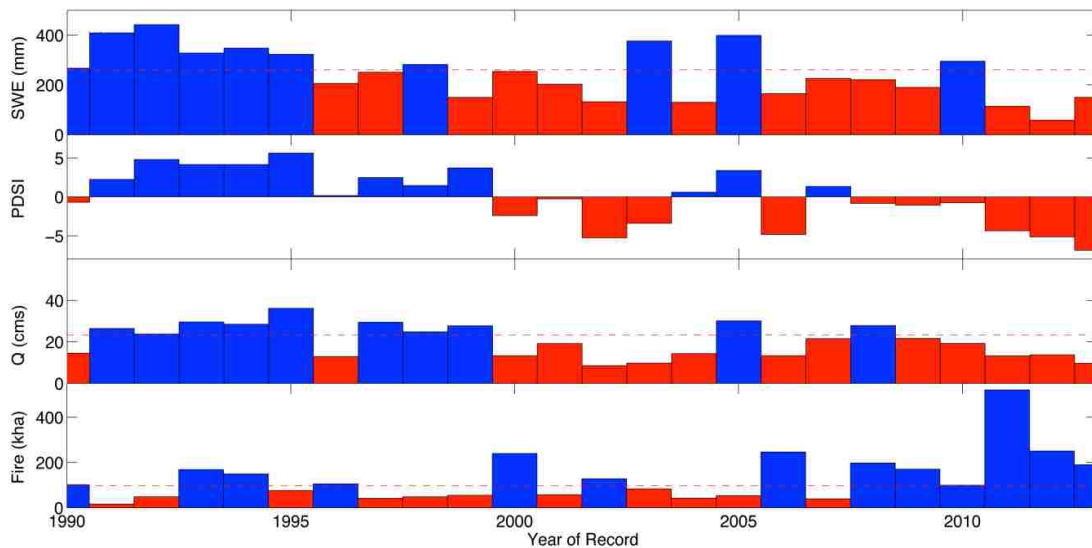


Figure 3: Hydrologic condition and wildfires in the Rio Grande watershed. Snow water equivalent data is from the Gallegos SNOTEL station near Taos, NM. The mean annual Palmer Drought Severity Index (PDSI) is for the entire upper Rio Grande watershed. Mean annual discharge is for the USGS Rio Grande gage at Embudo. The area of wildfire burned (in thousands of hectares) for the entire state of New Mexico.

Further, research indicates that climate change will exacerbate drought conditions in the region through increased atmospheric temperatures and greater evaporative water losses attributed to changes in mean circulation, mean humidity, and contribution from eddies (Seager et al., 2007).

2.2 Wildland Urban Interface (WUI)

One of the main driving forces behind climate change is human activity. The causes of forest fire include a combination of economic, social and cultural factors. Wildfires are expected to increase because of increased fuel loading from fire suppression (Brown, Hall, & Westerling, 2004) and from increasing population pressure from surrounding areas (J. A. Moody & Martin, 2001). Human activities are altering fire regimes in fundamental ways. Ignition sources increase drastically in human-altered landscapes. As more and more people live in and around forests, grasslands, shrub lands, and other natural areas and places referred to the wildland-urban interface (WUI), the fire-related challenges of managing wildlands are on the increase. WUI refers to area where “humans and their development meet or intermix with wildland fuel” (USDA, 2013). Some 32% of U.S. housing units and one-tenth of all land with housing are situated in the WUI and the growth is expected to continue (USDA, 2013). From 1990 to 2000 alone, the total WUI area in the United States increased by 18 percent, with the addition of more than 6 million homes (USDA, 2013). One of the main reasons of WUI is a population shift from the long-developed Eastern United States to the still-growing West and South, where cities are expanding into their surrounding wildlands. In general, the more houses and people, the more human-caused fire ignitions occur.

CHAPTER 3

MAJOR IMPACTS OF WILDFIRES IN THE RIO GRANDE WATERSHED

3.1 Hydrologic Responses

The hydrologic response of a burned watershed is dependent on a number of factors including the wildfire's severity, watershed characteristics (e.g. soil, slopes, and vegetation types), and the magnitude and timing of precipitation events following the fire (Debano, 2009). The effects of all types of forest disturbance on storm peak flood flows are highly variable and complex, producing some of the most confounding hydrologic conditions that forest managers must consider. Photos of the impacts of wildfires in the Rio Grande watershed are attached in the Appendix I.

3.1.1 Increase in Peak Flow Severity and Runoff Following Fires:

Annual and seasonal water yield, peak flood flows, base flows, and timing of flows are all affected by wildfires. Because of the potential impacts on human safety and property, peak flood flows are of great concern. Following high severity wildfires, peak flows can increase dramatically, severely affecting stream physical conditions, water quality, aquatic habitat, aquatic biota, cultural resources, and human health and safety (Neary, Koestner, & Youberg, 2011). Flood peak flows have been observed to increase up to 100 times compared to pre-burned conditions in watersheds after wildfires (Neary et al. 2005) (Table 1). These responses are also a function of burn severity, terrain, and climate. Increases in runoff following wildfires are primarily caused by two mechanisms: 1) reduced infiltration caused by hydrophobic soils, and 2) larger flow volumes caused by decreased canopy interception and increased bare-ground cover. Wildfires remove or kill

vegetation within a watershed, reducing the volume of water intercepted by vegetation canopies and increasing the percentage of water available for runoff. Wildfires also decrease the water normally lost as evapotranspiration, which increases the base flow (Neary et al. 2003).

Fire Name	Places	Before Fire Peak Flow	After fire Peak Flow
La Mesa (1977)	Frijoles Canyon	19 ft ³ /s or .5 m ³ /s (1964-69)	3030 ft ³ /s or 85.8 m ³ /s (1978) (Veenhuis, 2002)
Cerro Grande, 2000	Upper Pajarito Canyon	274-840 cfs	1020 cfs (Gallaher & Koch, 2004)
Cerro Grande, 2000	Pueblo Canyon	< 250 cfs	1440 cfs (Gallaher & Koch, 2004)

Table1: Peak flows before and after wildfires.

The major determining factor when considering the change in peak flows is the amount of disturbance to the surface material, which is usually organic debris (i.e. duff or forest floor) that protects the underlying mineral soil. The change in slope of the rainfall-runoff relations suggests that, for burned watersheds, a threshold of rainfall intensity exists that implies a critical change in the behavior of the hydrologic response. After a wildfire, changes in peak discharges are proportionately larger than changes in annual runoff and are therefore a more sensitive measure of hydrologic response. The rainfall-runoff relations appear to have a threshold value corresponding with the maximum 30 minute rainfall intensity such that above this threshold the magnitude of flood peaks increases more rapidly (Moody & Martin, 2001).

In 2002, peak flows from fire-impacted areas in Pueblo Canyon at Los Alamos National Laboratory (LANL) gages were less than 200 cfs, and in 2003, peak flows were less than 135 cfs, indicating some degree of recovery of the burned areas upstream of LANL canyons (Gallaher & Koch, 2004) .

Another major concern is the timing of storm flows, or response time, after wildfires (Anderson et al., 1976). Burned watersheds respond to rainfall faster and produce more flash floods. Flood warning times are reduced by flashy flow and higher flood levels can be devastating to property and human life (Anderson et al., 1976). Another management consideration is how an increase in peak flows (measured at the site scale (area <10 km²)) should be interpreted at the larger basin scale (10 km² < area < 500 km²). Changes to peak flows are influenced by factors other than wildfire impacts, including overall basin condition, the age and pattern of forest stands within a larger basin, the location, age, and extent of road networks, and the extent (both laterally and longitudinally) of riparian buffers. All these factors become increasingly complex to quantify in larger basins, and therefore increasingly important in interpreting potential changes in peak flows (Grant et al., 2008).

3.1.2 Effects of Fire on Snowpack Accumulation and Sublimation:

Snow covered forests are a critical source of water in the southwestern region and are subject to major disturbances especially to fire. In the last two decades, removal of forest canopy due to severe forest fires have been changing the snowpack mass in New Mexico (Burles & Boon, 2011). Generally removal of forest canopy by fire increases snow accumulation by reducing interception. Another important concern is following fire; winter season ablation of the snowpack increases, which results in reduced peak

snowpack volumes (Anderson, 1956). All of these factors alter snow vegetation interactions and reduce the volume of snow water available to melt. Research following the Las Conchas fire in the Jemez mountains showed that the unburned area had roughly 10% more water available for melt than the post-burn area, with winter season ablation reducing snowpacks by nearly 50% prior to melt in the post-burn area (Harpold et al., 2014). This fire demonstrated that forest canopies play an important role in reducing snowpack sublimation and potentially increasing the water available for vegetation and runoff. Only a few studies have investigated this issue and further work is necessary to assess the role that topography plays in altering water partitioning following forest disturbance and the potential implications for ecological health and downstream water resources.

3.1.3 Water Yield:

For the most part, water yields increase when mature forests are harvested, burned, blown down, or attacked by insects (Neary et al, 2003). Notable exceptions occur where fog is abundant or snowfall accounts for a majority of the annual precipitation. The amount that measured water yield increases the first year after wildfire disturbance varies greatly at one location or between locations depending on wildfire intensity, climate, precipitation, geology, soils, watershed aspect, tree species, and proportion of the forest vegetation burned. Water yield increases from prescribed fires and wildfires in the Southwest are variable, but are generally less than 150% for prescribed fires and low-severity wildfires. Moderate-to-high severity wildfires can cause significant increases in water yield. The rate at which the water yield returns to its previous level depends on the location, climate, precipitation, watershed aspect, tree species, and proportion of the forest vegetation

burned. Ponderosa-pine and mixed coniferous forest dominated areas in New Mexico reportedly returned to pre-fire conditions for water yield within 4 to 5 years following severe wildfires, whereas in Arizona this figure has varied from 4 to 10 years, depending on the watershed condition. The formation of water repellent layers is often associated with large increases in water yield immediately after a fire.

In 2000 after the Cerro Grande fire, the total upstream runoff at LANL was 331 acre-ft. (4,08282 m³), 3.7 times higher than the pre-fire average (Gallaher & Koch, 2004).

However, by 2002 and 2003, the upstream runoff was 66 acre-ft. (81409.7 m³) and 21 acre-ft. (25903.1 m³), respectively, significantly less than the pre-fire average water yield.

In 2000, the downstream runoff at LANL was 177 acre-ft. (218326 m³), 2.8 times higher than the pre-fire average. In 2001 the runoff was 250 acre-ft. (308370 m³), about 5 times higher than the pre-fire average. Whereas runoff in canyons at LANL appears to have returned to near pre-fire conditions by 2002, the runoff in Pueblo Canyon through 2003 continued to be 4 times higher than pre-fire runoff (Gallaher & Koch, 2004).

3.2 Geomorphic Responses

Common geomorphic impacts of wildfires include increased soil erosion rates and debris flows, decreased water quality in areas downstream from burns, and increased sediment transport in streams and rivers. Each of these is described in detail below.

3.2.1 Impacts on Soil:

After wildfires, changes in soils produce varying responses in the water, floral, and faunal components of ecosystems because of their complex interdependencies (Neary, 2004).

The fire effects on soils are a function of the amount of heat released from combusting

biomass into the ground and the duration of combustion. It is not always true that high-intensity fires will have the greatest impact on the soil; in some cases, high intensity fires can move quickly through the tree canopies and have less impact on the soil than low-intensity fires that smolder near the ground for longer periods. Breakdown in soil structure, reduced moisture retention and capacity, and development of water repellency are the physical impacts of fire on soil, all of which increase susceptibility to erosion (Neary, 2004). In the case of slow-moving fires, the combustion of vegetative materials creates a gas that penetrates the soil profile. As the soil cools, this gas condenses and forms a waxy coating which causes the soil to repel water, which is known as hydrophobicity (R. Moench and J. Fusaro, 2012). This hydrophobic condition increases the rate of water runoff. Percolation of water into the soil profile is reduced, making it difficult for seeds to germinate and for the roots of surviving plants to obtain moisture. Additionally, soil water repellency is transient and is related to soil moisture. During long wet periods both natural and fire-induced soil water repellency are lost and are reestablished upon drying, causing short-term or seasonal variations in which hydrophobic soils do not form in every instance. It happens mostly with coarse textured soils such as sand or decomposed granite. Finely textured soil such as clays are less prone to hydrophobicity (Robichaud, 2000).

Combustion of organic matter overlying soils, such as litter and duff, has one of the most important impacts on soils. Depending on fire severity, moisture content, and thickness of the organic layer, consumption of organics can range from scorching (producing black ash) to complete ashing (producing white ash) (Neary, 2004). It has been found that moderately burned areas maintained 38% of the vegetative and litter cover, while

severely burned areas had zero to 23% retention (Neary, 2004). When the moisture content of the forest floor is high, a surface fire may burn at high intensity without damaging sprouting tissues in the duff layer and mineral soil. If duff layers are not completely consumed, changes in soil pore space and infiltration rate are very slight. When mineral soil is repeatedly exposed, rain impacts may clog fine pores with soil and carbon particles, which decrease infiltration rates and aeration of the soil. During wildfires or prescribed fires, consumption of the partly decomposed (O_F) and fully decomposed (O_H) organic duff layer influences postfire stand development by the destruction of rhizomes and seeds that are stored in the forest floor and by overstory-tree mortality caused by the prolonged heat released by smoldering combustion (Hille & Stephens, 2005). The loss of riparian vegetation, which prior to the fire helps to hold stream banks together, can also lead to bank instability and erosion.

3.2.2 Changes in Sediment Erosion Processes:

Generally, after wildfire sediment transport rates increase temporarily often by orders of magnitude (Malmon et.al. 2007). Sediment transport is both an episodic and steady process. Before a wildfire, sediment transport in mountain regions is typically supply-limited while after the wildfire it is transport-limited. Most of the eroded sediments come from low order watersheds and are stored as floodplain deposits, alluvial fans, and channel fill in high order watersheds (J. A. Moody & Martin, 2001);(Moody & Martin, 2001). The initial transport rates out of burned watersheds are relatively high. An important concern is that north-facing hill slopes erode faster than south-facing hill slopes and may, over geological time, have an asymmetrical effect on landscape evolution (Melton, 1960). Loss of rainfall storage capacity on the vegetation and in the litter

combined with, where present, the water repellency of the soil, promote sheetwash.

Sediment transport is increased often by sheetwash where water flow is not concentrated into small channels (Shakesby & Doerr, 2006).

Another important aspect of sediment delivery after fires is the transport of ash into streams, which can have major impacts on water quality and aquatic communities. The timing of sediment delivery varies with sediment type and size. The delivery is rapid but more prolonged for the fine-grained sediment, and more irregular and delayed for coarse-grained sediment (Reneau et al., 2007). Thus, most of the impacts from ash and other fine-grained sediments occur soon after a fire, whereas the pulse of coarse-grained sediment can be significantly attenuated and delayed pending flows capable of sustained bedload transport.

The May 2000 Cerro Grande fire burned 17,400 ha in the eastern Jemez Mountains and Pajarito Plateau of northern New Mexico. Ash concentrations rapidly decreased through a series of moderate-intensity convective storms in the first rainy season after the fire. Over 90% of the ash was delivered to the Los Alamos reservoir in the first year, and ash concentrations in suspended sediment were negligible after the second year. Deposition of coarse-grained sediment was irregular in time and was associated with transport by snowmelt runoff of sediment stored along the upstream channel during short-duration summer floods (Reneau et al., 2007).

3.2.3 Debris Flow:

Flooding and debris flows are common in the aftermath of wildfires. Debris flows are particularly dangerous because they tend to occur with little warning. Debris flows can strip vegetation, block drainages, damage structures, and endanger human life. Generally,

post-fire debris flows are triggered by one of two processes: (1) extreme surface erosion caused by rainfall runoff or (2) land sliding caused by infiltration of rainfall into the ground and subsequent geotechnical instability. In burnt areas, large-scale debris flows can be initiated through a process of progressive sediment bulking by overland flow and rill erosion in steep upper basin slopes, followed by deep incision on lower slopes (Shakesby & Doerr, 2006). Through this mechanism debris flow generates most frequently in response to short recurrence and short duration storms. After wildfires, debris flows may develop downslope of shallow landslides during heavy rainfall and are referred to as soil-slip debris flows. Fires commonly reduce the infiltration capacity of soils, which increases runoff and erosion. Prolonged heavy rains may increase soil moisture even after a wildfire. The wetted soil may fail, producing infiltration-triggered landslides. Although debris flows can occur in areas underlain by nearly any rock type, the areas most likely to produce debris flows are those underlain by sedimentary or metamorphic rocks that have more than about 65 percent of the area burned at moderate to high severities (USGS, 2005). Debris flows are most frequently produced from steep slopes ($>20^\circ$), and are unlikely to extend beyond the mouths of basins larger than about 25 square kilometers (~10 square miles) (Beche et al. 2005).

In Southern California, as little as 7 millimeters (0.3 inches) of rainfall in 30 minutes has triggered debris flows, and any storms that have intensities greater than about 10 millimeters/hour (0.4 inches/hour) introduces a risk of producing debris flows (USGS, 2005). RDN (Rapid Development Data Collection Network) rain gages installed immediately after a wildfire provide valuable data for researchers studying the erosive response of burned basins, and they form the basis for post-fire flood and debris-flow

warnings in some areas. Scientists use rainfall data from the RDNs to define rainfall intensity-duration thresholds that identify those conditions most likely to result in post-fire debris-flow activity. Also rain gage data are used to develop models for estimating the probability and magnitude of debris-flow activity.

3.2.4 Impacts on Receiving Waters (reservoirs, streams, wetlands):

Eighty percent of freshwater resources in the United States originate on forested land and more than 3,400 public drinking water systems are located in watersheds containing national forest land. The ability of downstream receiving waters to support aquatic life and other designated beneficial uses is affected by concentrations of contaminants in stormwater runoff. Contaminated runoff from burned areas typically drains to areas with existing management concerns, such as water quality impairments, sensitive species habitats, or areas with contaminated sediments. Pollutants in runoff also affect drinking water reservoirs and sensitive habitat areas. Both direct effects of runoff and indirect effects associated with aerial deposition of ash affect water quality (Stein & Brown, 2009). Influx of ash directly into streams may cause increases in pH (alkaline conditions) and clogging of fish gills, which increase fish and amphibian mortality rates (Little & Calfee, 2005).

CHAPTER 4

FIRE PRONE RISK AREA OF EI RITO WATERSHED

4.1 Risk Area Overview

In this research El Rito watershed is considered as a fire prone risk area, which is located in Rio Arriba County, New Mexico. This is a snow-dominated watershed, located in Northern New Mexico that drains part of the Tusas Mountains and supplies flow to the Rio Chama (Hu, Tsinnajinnie, & Frisbee, 2013). According to the New Mexico RGIS data, several fire events occurred over the last 43 years from 1970 to 2013 in this watershed. The location of the watershed, the forest condition, climate change and previous history indicates that the watershed might be at risk for more fire events in the future.

4.1.1 Vegetation:

The study site is mainly a forested area. Almost 98% area of the watershed is covered by forest. The dominated vegetation is subalpine coniferous forest and montane coniferous forest (Map 2: Appendix I). This data set was obtained from RGIS website for the whole state of New Mexico. Then the data was processed for the vegetation types of study area by using ArcGIS software.

Vegetation Type	Acres	Percentage
Subalpine Coniferous Forest	22,025	47.26%
Montane Coniferous Forest	18,623.6	39.96%
Coniferous and Mixed Woodland	2,740.12	5.88%
Montane Grassland	1,469.78	3.15%
Urban/Farmland/Open Water	9,61.13	2.06%
Juniper Savanna (Ecotone)	7,83.288	1.68%

Table 2: Types of vegetation of El Rito Watershed

4.1.2 Land Use Cover:

The land use data was in raster format obtained from RGIS and then clipped for the study area by using ArcGIS. The most dominant land use cover is evergreen forest, which is more than 60%. The other land cover areas are grassland or herbaceous, deciduous forest, mixed forest and shrublands. Very small portions include pasture or hay and commercial, industrial and transportation areas (Map 3: Appendix I).

4.1.3 Fire History:

Weather conditions such as drought, high temperature, low humidity, and high wind play a major role in the spread of wildfires and are influenced by topography and location of mountains as well as global influences such as La Nina and El Nino. The fire data was obtained from the USDA Forest Service website of Carson National Forest GIS data. The data was recorded for the last 43 years from 1970 to 2013 (Map 4: Appendix I). Then it was clipped for the El Rito watershed using ArcGIS. Table 1 and 2 shows a summary of the analysis of wildfire data of the watershed.

There have been 76 wildfires during the recorded history within the analysis area. Most wildfires were less than 10 acres those occurred 1.67 times per year and only 5.26% of all fires were larger than 10 acres (up to 5,000 acres), which occurred only one time in every ten years. Most of the wildfires in the study area were caused by lightning (Table 3).

Wildfire Types	Total Wildfire (1970-2013)	Average
Less than 10 acres	72	1.67 per year
Larger than 10 acres	4	1 in every 10 years

Table 3: Wildfire events of El Rito Watershed

Causes	Number of Fires	Percentage
Lightning	65	86.84%
Smoking	3	3.95%
Debris burning	3	3.95%
Arson	2	2.64%
Miscellaneous	2	2.64%

Table 4: Major causes behind the occurrence of wildfire events in El Rito watershed

4.1.4 WUI and Private Lands:

Almost half of the watershed is covered by wild land urban interface (WUI) and so major destructions can take place after severe wildfires. The WUI increases the fuel load for ignition and after fire, wooden house materials help to spread the flames. This is alarming because the watershed plays an important role for the community of El Rito. The watershed serves as traditional uses of the area, provides irrigation water via El Rito Creek and supports outdoor recreations. The WUI data was obtained from USDA Forest Service website of Carson National Forest GIS data. The WUI area is 23,451.5 acres, which is 50.32% of the total study area, and 5.58% of the total area is covered by private-parcel lands (Map 5: Appendix I). Later in the analysis it was also found that all these are in high risk areas for wildfire events.

4.1.5 Crown Fire Potential Risk:

Crown fire is the movement of fire into and through the canopy. It moves rapidly and is very intense. The data of crown fire potential for New Mexico was obtained from the

RGIS website and then clipped for the study area using ArcGIS. The metadata describes that crown fire potential was modeled using FlamMap, an interagency fire behavior mapping and analysis program that computes potential fire behavior characteristics. The raster dataset of crown fire potential was classified for the study area into three categories of risk area (low, medium, high). It was then overlaid with the land cover map to show which areas are more vulnerable to crown fire potential risk. It was found that scrubland, grassland and pasture/hay areas are in high risk for crown fire potential in the El Rito watershed (Map 6: Appendix I).

4.1.6 Soil Erosion Probability:

The magnitude of fire accelerates soil loss from the forested land. For this reason it is important to know the physical properties of soil that may affect the surface erosion following a fire. Soil data was collected from STATSGO downloaded from RGIS website. The data then processed in ArcGIS for the study area. The soil classification of the area is loam, sandy loam, silt loam and clay loam. The GIS attribute table has MUKEY and MUSYM columns for each type of soil, which has reference numbers. All these numbers refer to the soil characteristics for each classification. These soil characteristics allow for the determination of soil erosion probability. Based on this information the soil erosion map was created which has 5 classes of risk from low to high (Map 7: Appendix I). The overall study area is in moderate risk category, but the central and west portions of the study area are in high risk for erosion probability. Overlaying the soil erosion map layer with the WUI and private/parcel land maps, it was found that most of the WUI areas and the parcel lots are located within high risk of erosion probability areas (Map 8: Appendix I).

4.1.7 Ignition Probability:

The ignition probability is the estimation of the degree of confidence in the occurrence of fire event across broad areas such as forested watershed. It is important to know the ignition probability to minimize the factors behind ignition to mitigate the risk of future wildfires. The data of ignition probability of New Mexico was obtained from RGIS website and then clipped for the study area by using ArcGIS. The metadata of RGIS describes that the raster map gives values to areas where fires are likely to occur assuming there will be an increase in probability of a fire occurring in areas where they have occurred in the past. The State Forestry procured the fire data of New Mexico from 1987-2008 and combined it into a density grid where each pixel represents a number of fires that have occurred per square kilometer. The dataset was reclassified for the study area into three categories and it was assumed those areas where the wildfire occurrences have been lower, there will be low risk of ignition (Map 9: Appendix I). Within the study area 76 wildfires occurred in 188 square kilometers from 1970 to 2013. The probability of fire occurrence per square kilometer was 0.4 per year. The high risk areas depict regions in the watershed where 3-5 wildfires per square kilometer can be expected over a period of 12.5 years (Table 4) (Map 9: Appendix I).

Number of fires per square kilometer (probability)	Risk Rank
1	Low
1-3	Medium
3-5	High

Table 5: Ignition probability of El Rito watershed

4.2 El Rito Watershed-Fire Prone Risk Area

The above analysis shows that El Rito watershed is a densely forested area and the grassland, shrublands and pasture areas are in high risk category for the future fire events. Most of the location of WUI areas and private lands are within the risk area of the watershed. The probability of ignition is also showing that the medium to high risk areas are from the center to the south of the watershed where most of the WUI areas are located which can lead major destruction after future fire events. These areas are also at risk because of the erosion probability based on the soil condition. Overall, the fire history of El Rito watershed indicates a trend towards increasing wildfires, which is broadly described in chapter 5.

CHAPTER 5

MODELING OF THE PROBABILITY OF FIRE OCCURRENCE IN EL RITO WATERSHED

5.1 Model Purpose

El Rito watershed is at risk for major wildfires in the near future as previously described. A model was developed to investigate potential future trends of wildfires within the study area based on the conditions of the climate change. Logistics regression technique and system dynamics modeling were used to investigate these issues.

5.2 Software

The probability of the forest fire occurrence for the El Rito watershed was developed using a system dynamics platform with a monthly step over the 1970 to 2050 time period. Powersim Studio 10- academic version was used for doing the model. The Powersim tool has the capacity to give the result in a dynamic basis. This is one of the main reasons to use this tool to investigate the probability of fires in a monthly basis. Also it provides a simulation tool that can be used to support a decision making tool and run scenarios of risk analysis.

5.3 Data

To develop the model, two types of data were used:

- 1) *Historic wildfires data*: The forest fire data was obtained from the USDA Forest Service website of Carson National Forest GIS data recorded from 1970 to 2013. For modeling this is considered as observed historic time period of fire occurrence. The data was processed to run the model (Appendix III).

2) *Climate variables data*: For the modeling, the hydrologic variables -precipitation, temperatures, evapotranspiration (ET), snow water equivalent, soil moisture content (SMC), runoff and wind speed were considered as climate change predicting factors. The climate change data was obtained from the HadGEM2-ES global circulation model (GCM) under RCP 4.5 and 8.5 scenarios, which was downscaled by the Bureau of Reclamation (BoR, 2014) (Appendix III). The units of the variables are millimeter per month (mm/mo) except the temperature, which is degree centigrade per month (deg C/mo). The scenarios are called Representative Concentration Pathways (RCPs) and developed using a different range of climate altering gas emissions and a wide range of assumptions about population growth, economic and technological development, and other factors to produce different future climate conditions. RCP4.5 and RCP8.5 represent the intermediate and high range of emissions respectively (Vuuren et al., 2011). This paper discusses the RCP4.5 scenario model result analysis.

5.4 Logistic Regression Technique and Incorporation of Powersim Tool

Logistic regression techniques were used to assess the importance of meteorological and hydrological variables in predicting the occurrence of fire in the study area. The record of fire was taken for the period of 1970 to 2013 to be paired with hydrologic climatic variables data.

The Bayesian Information Criterion (BIC) test was used to eliminate variables from the full model that did not improve the robustness of the model. After completing the BIC, the best model was found to incorporate hydrologic variables. The Receiver Operating Characteristic (ROC) curve was used as a measurement of the accuracy of the model and the area under the curve is comparable to the r^2 test (1 is a perfectly fitted model, 0 is a

poorly fitted model) (Figure a: Appendix II). The main purpose of using the logistic regression was to generate the slope coefficient for each hydrological variable. Then the slope coefficients and intercept values were used in the Powersim tool following the logit regression probability equation to investigate the probability of fire occurrence by running the simulation from 1970-2050 time periods. After getting the simulation results it was converted to Microsoft Excel to analyze the results. A list of the slope coefficients and intercept values from the logistic regression is attached in Appendix II (Table a and b). The simulation results from the Powersim are also attached in the Appendix II.

5.5 Model Results and Discussion

5.5.1 Comparison of Observed Historic and 4.5 Scenario Modeled Historic Fire Events (1970-2013):

Precipitation, temperature, evapotranspiration (ET), runoff, snow water equivalent (SWE) and soil moisture content (smc) were used to simulate the probability of fire occurrence in the Powersim tool. The simulation period was set from 1970 to 2050. A total of 76 real fire events occurred during the observed historic time period (1970-2013) and the model result showed 97 fire events in this time period in the study area. The model was over predicted 21 more fires than really occurred fire events (Figure 4). But the model captured the basic fire behavior from the observed historic events and the trend and patterns were almost same in the occurrence of monthly fire events for the observed historic and modeled historic result. In the month ranges of January to April and September to December, the model was showing negligible difference of fire events compared to observed historic time (Figure 4). The increasing fire events occurred from May to August months in both cases and that might be because of the increasing summer

temperature (Figure 5). After May months, evapotranspiration decreased because of the increased number of fires from June to August months as the canopy decreased by fire events (Figure 5). The canopy loss will increase bare ground cover and flow volume. Also, soil moisture content decreased mostly in July and August months, which was another reason for the drying summer condition to accelerate fires (Figure 5).

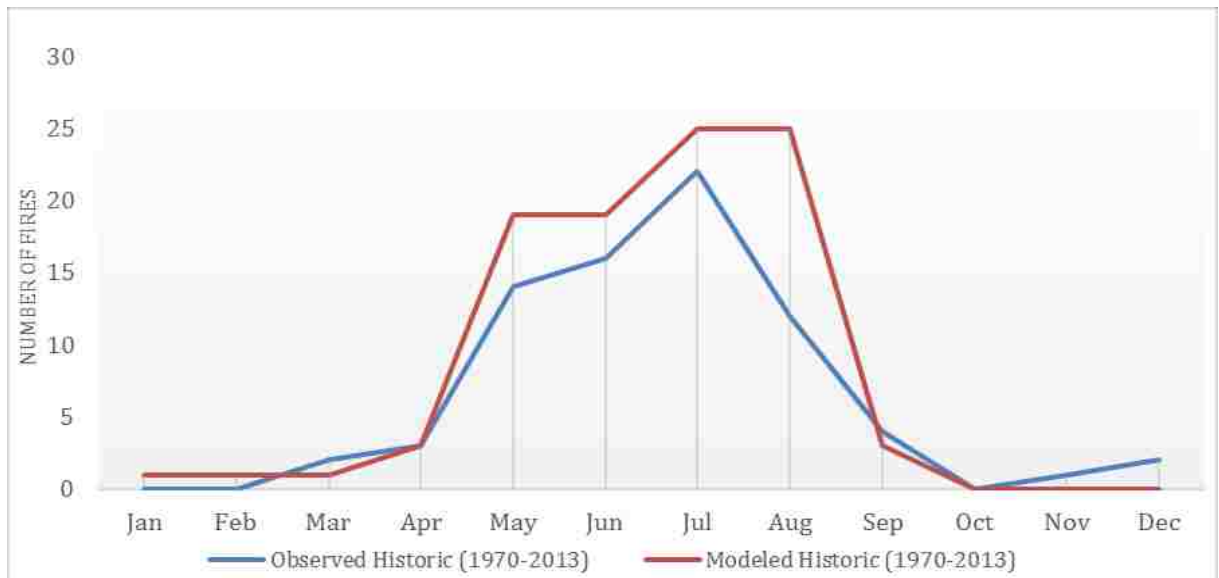


Figure 4: Comparison between observed historic and modeled historic fire events from 1970-2013.

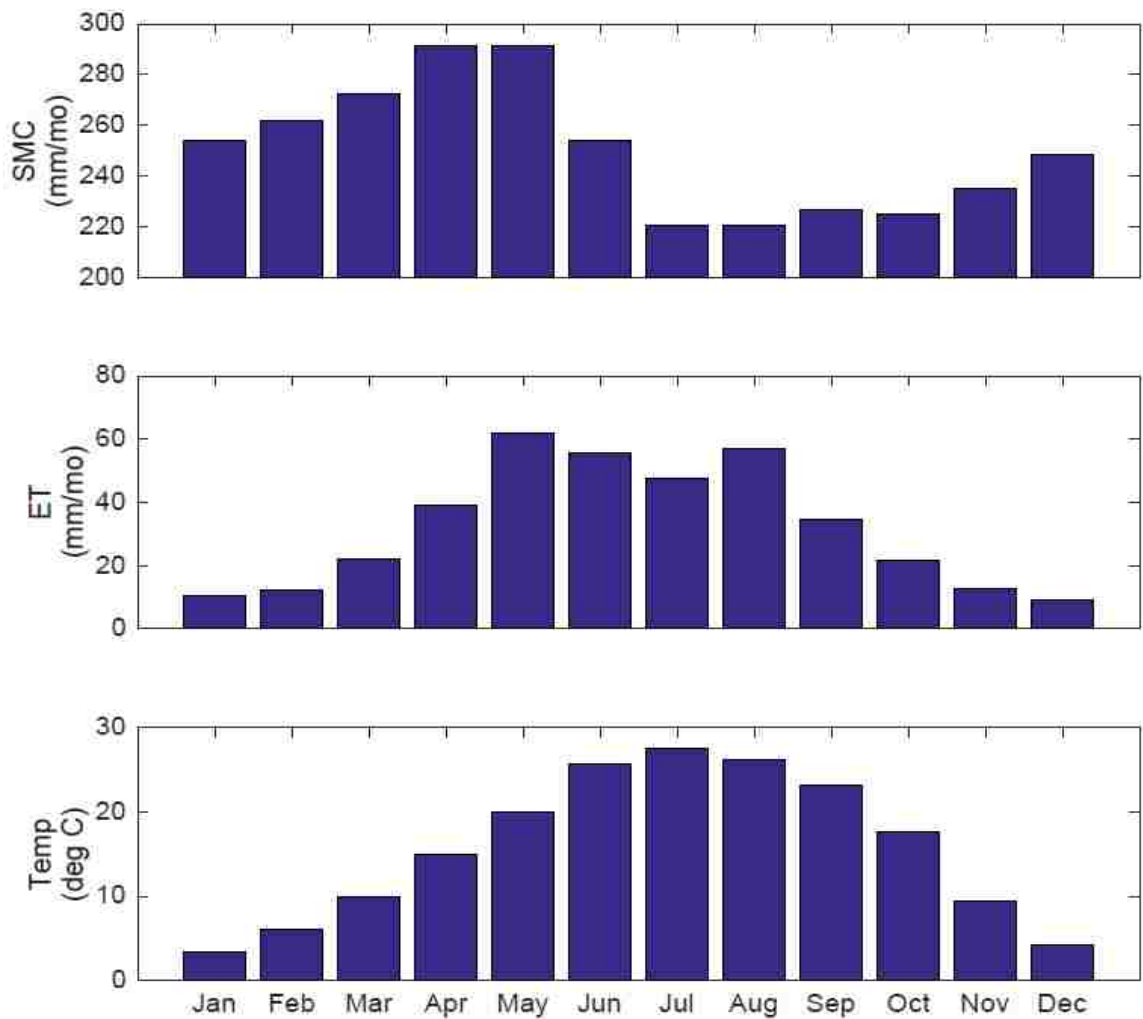


Figure 5: Temperature, evapotranspiration (ET) and soil moisture content (SMC) from 1970 to 2013 under 4.5 scenario.

5.5.2 Comparison of Observed Historic, Modeled Historic and Modeled Future

Fire Events:

For 4.5RCP scenario the Powersim model result showed an increasing trend of fire events for the projected time period of 2014 to 2050. The projected fire events are 102 which is a 34.2% increase of observed historic fire events (1970-2013).

Figure 6 shows the compared fire events among observed historic (1970-2013), modeled historic (1970-2013) and modeled future (2014-2050) fire events from the months of January to December. Both modeled historic (97 fires) and modeled future (102 fires) fire events showed an increasing trend of fire occurrence compared to historic fire events (76 fires). For the modeled future scenario, fire events are predicted to increase 5.16% compared to modeled historic events. The months of January to April and September to December showed very little difference of occurring fires between the modeled historic and modeled future fire events (Figure 6). The model predicts that there will be an increasing trend of fire events from May months during 2014 to 2050. But July and August months will have the highest number of fires under the modeled historic and modeled future time period compared to observed historic fire events (Table 6).

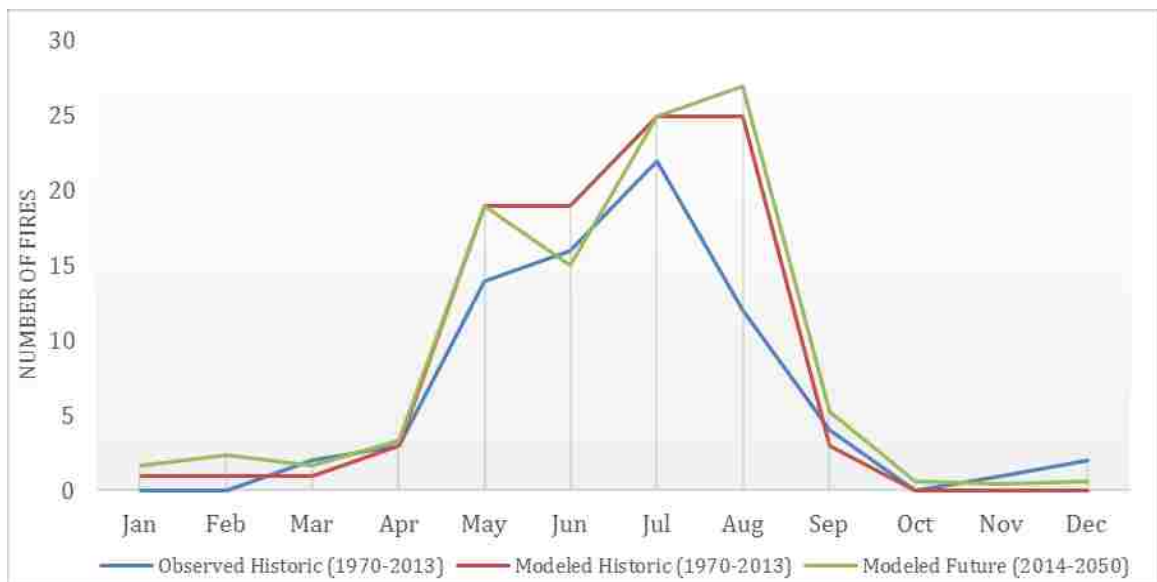


Figure 6: Comparison of the fire events among observed and modeled historic (1970-2013) and modeled future (2014-2050)

Fire Months	Observed Historic Fires (1970-2013)	Modeled Historic Fires (1970-2013)	% increase or Decrease (1970-2013)	Modeled Future Fires (2014-2050)
January	0	1	1.32%	2
February	0	1	1.32%	2
March	2	1	-1.32%	2
April	2	3	1.32%	3
May	14	19	6.58%	19
June	16	19	3.95%	15
July	23	25	2.63%	25
August	12	25	17.11%	27
September	4	3	-1.32%	5
October	0	0	0%	1
November	1	0	-1.32%	0
December	2	0	-2.63%	1

Table 6: Comparison of the number of fire events between observed historic and model result.

Total number of summer fire seasons will be more than other seasonal fires under the modeled future 4.5 scenario (Table 7). Fire events in the dry seasons (March-June) is showing a slight decrease and for winter seasons (November to February) a slight increase for modeled future fire events compared to modeled historic events. But the fires of summer seasons (July to October) will be high in the future time from 2014 to 2050 (Figure 7) (Table 7). If compared with the observed historic fires (1970-2013), there will be 19 more probable fire events in the months of July to October which is 33% increase of summer fires for the modeled future time (2014 to 2050) under 4.5 scenarios (Table 7) (Figure 7).

Fire Seasons	Observed Historic Fires (1970-2013)	Modeled Historic Fires (1970-2013)	Modeled Future Fires (2014-2050)
Dry: March-June	34	42	39
Summer: July - October	39	53	58
Winter: November-February	3	2	5

Table 7: Comparison of the numbers of seasonal fires between observed historic and model result.

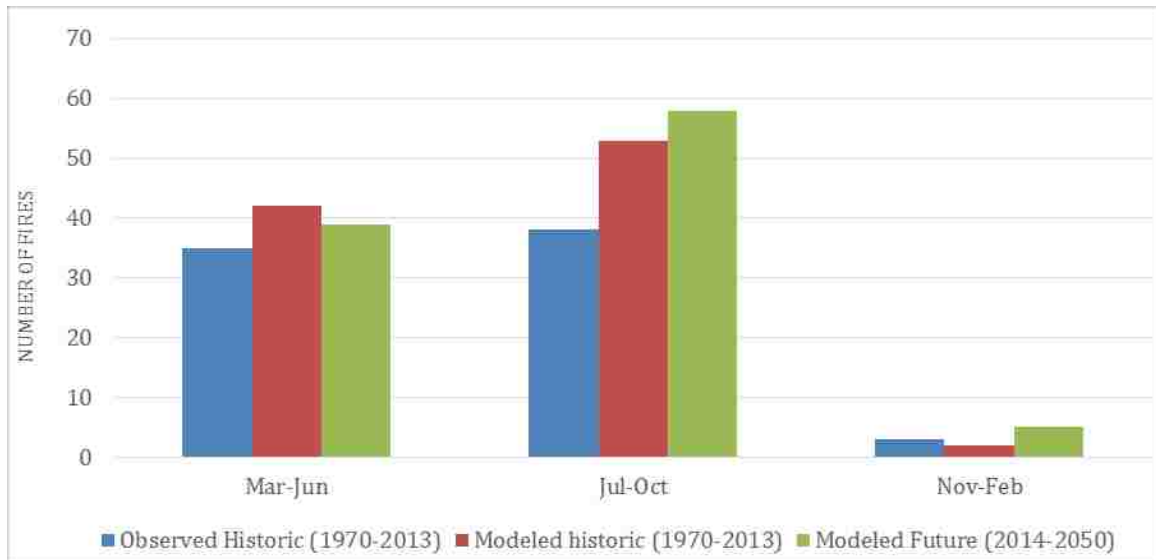


Figure 7: Comparison of fire seasons between observed historic and model result.

5.5.3 Comparison of Climate Variables between Historical and Future time

Period:

As the climate warms, moisture and precipitation levels are changing, with wet areas becoming wetter and dry areas becoming drier. Higher spring and summer temperatures and earlier spring snow-melt typically cause soils to be drier for longer, increasing the likelihood of drought and a longer wildfire season, particularly in the western United States. These hot, dry conditions also increase the likelihood that, once wildfires are started by lightning strikes or human error, they will be more intense and long-burning.

Temperature is showing an increasing trend between observed historic (1970-2013) and modeled future (2014-2050) time period. The overall temperature will increase 9.6% from 2014 to 2050 than the observed historic time period and there will be 6.02% increase in summer temperature in the months of July and August under the modeled future time period (Figure 8). As temperature will be higher in future, there will be a warmer and drier spring, reduced snowpack and earlier snowmelt, which will lead less snow water equivalent (SWE). There will be 19.35% less snow water equivalent (SWE) during the modeled future time period (2014-2050) than the observed historic time period (1970-2013) (Figure 8). Higher summer temperature coupled with earlier spring snowmelt will increase the frequency, length and severity of summer wildfires in the future (Westerling et al., 2006).

Also there will be a slight decrease (1.5%) of evapotranspiration (ET) in the months of July and August, which may be due to? canopy loss from increasing fire events during the 2014 to 2050 time period (Figure 8). Larger flow volumes can be caused by decreased canopy interception and increased bare-ground cover. The precipitation is showing no significant difference in both time periods and the highest precipitation is in July and August months, which can increase peakflow after severe fires (Figure 8). Soil moisture content (SMC) also shows almost same trend in both observed historic and modeled future time periods and a slight decreasing trend from June to December months as compared to the January to May months for the modeled future time (Figure 8). Because earlier spring snowmelt provides soil moisture, an earlier melt leads to drier summer conditions. These might be important driving factors to increase the number of future fire events especially during July to August months.

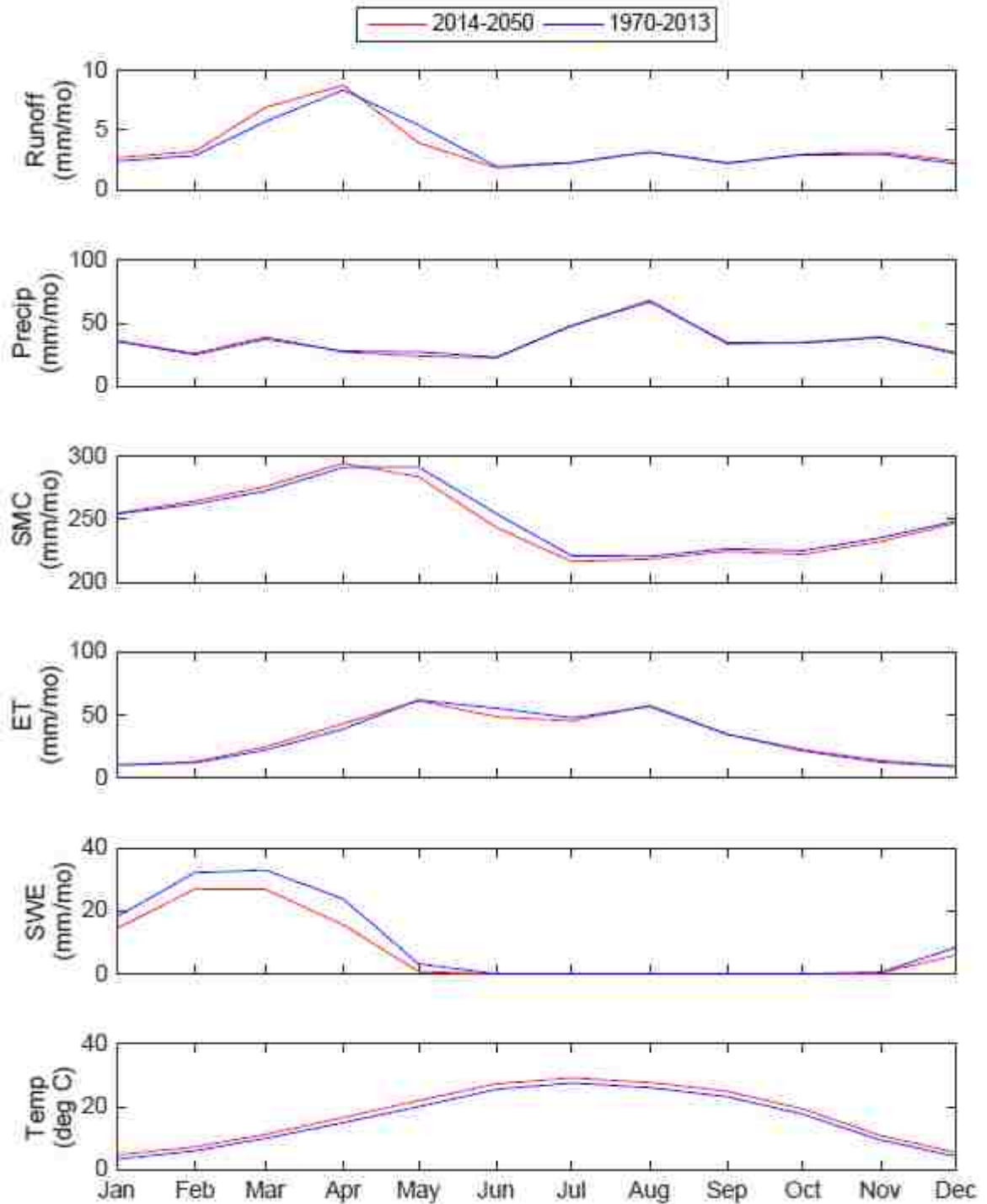


Figure 8: Comparison of temperature, snow water equivalent (SWE), Evapotranspiration (ET), soil moisture content (SMC), precipitation and runoff between 1970-2013 and 2014-2050 time period under 4.5 scenario.

Total runoff will increase 2.36% during the 2014-2050 time period. In the months of March and April, there will be an increasing runoff and then drop in the May months. Earlier snowmelt can be the reason for increasing runoff in March and April months. In the months of June and July runoff will decrease but then in August months it will show an increase during the modeled future time period (Figure 8). The increasing rates might also indicate increasing post-fire flood as most of the fire events will occur in August months. But the runoff response after a fire is a transient process that changes in space and time and therefore is difficult to quantify. It also depends on rainfall-discharge relationship. So after fire events the runoff results can be variable in the future than from the obtained 4.5 scenario data. This is also true for other climatic variables. If the projected fire events will occur, they might change some of the values of the hydrologic climate variables and vice versa.

Nonetheless, because temperatures and precipitation levels are projected to alter further over the course of this century, the overall potential for wildfires in the United States, especially the southern states, is likely to increase as well.

5.5.4 Limitations of the Model:

To conduct the model the researcher considered only the hydrologic variables as climate predictors to project future fire events. But when the real fire events occurred in the study area during the historic time period (1970-2013), there were additional factors besides these. The occurrence of fires further depends on landscape composition and structure that were not studied for this paper because of time limitations. There are locational effects which were not included in the model, such as locally specific predictors, elevation, fuel types, vegetation, canopy loss, land use, the availability and continuity of

fine fuels (grass) etc. Also the obtained data of 4.5 scenario is for the regional scale of El Rito and used to present the El Rito watershed, which is a small part of the total region. There can be difference of climate condition between the forested El Rito watershed and the overall El Rito region which might change some of the model fire numbers. Overall all these incompatibilities can change the number of fire occurrence in the watershed for the modeled future time period.

5.5.5 Scope of the Model/Future Research:

Although the model has some limitations, it has the potential for use in the future to predict the occurrence of future fire events. This paper demonstrates use of the method for only the probable number of fires in each month. But it would be useful to know the probability of the size of the fire and the specific location of spreading the fire in the watershed, which needs more research and more reliable dataset. Thus, the model has left the opportunity for the subject of future research and analysis.

CHAPTER 6

CONCLUSION

The main objectives of this study were to synthesize the previous research on the impacts of wildfires on hydrologic and geomorphic variables in the Rio Grande watershed and investigate the factors contributing to wildfire risks within the El Rito Watershed. To achieve these objectives, an extensive literature review and a system dynamics model were conducted. The Powersim tool was used to simulate the future number of fire occurrence in the study area from 1970 to 2050.

The detailed literature review has provided a clear understanding of the impacts of wildfires in the Rio Grande watershed. Wildfires can affect the physical, chemical, and biological quality of streams, rivers, and lakes. After a moderate to severe fire, increased runoff provides the pathway for the transport of chemical-laden sediment to surface water, which may have substantial water quality impacts. Hydrophobic condition of the soil increases the rate of runoff and makes the soil profile difficult to germinate seeds after wildfires. Canopy loss reduces the volume of water intercepted by vegetation and increases the percentage of water available for runoff. Also moderate-to-high severity wildfires can cause significant increases in water yield. Burned vegetation and increased sediment loading can drastically impact lake and reservoir holding capacities as well as the functionality of the outlet works by filling the system with debris.

To minimize the impacts of wildfires, the wildland managers have long desired to know the risks of fire events in advance of their occurrence. In this paper the considered study area, the El Rito watershed, is a densely forested area and the grassland, shrublands and pasture areas including the location of WUI and private lands are in the high risk

category for the future fire events. This paper studied one of the methods to project future fire events for the El Rito watershed by using Powersim tool. The model result showed an increasing trend of wildfires during the projected time period from 2014 to 2050.

Increasing temperature with earlier spring snowmelt will increase the frequency of wildfire occurrence. Further research may expand the current model to consider other specific locational and landscape structure variables to get a more accurate number of probable fire events in the future. Yet the proposed model may help forest managers for designing prescriptions to take actions for future planning to mitigate the risk of probability of wildfire occurrence.

The goals of this research were to improve the understanding of the risks and hydrologic impacts of wildfires in the Rio Grande headwaters. A wide range of models has been developed to investigate post-wildfire hydrologic and geomorphic processes and conditions. New modeling approaches are needed in order to address the larger-scale implications of climate change and fire management on longer-term catchment processes. The ability to forecast the number and location of large wildfire events is important to fire managers attempting to allocate and distribute suppression efforts during severe fire seasons. But it is hard to get exact location and timing of the fire occurrence with perfect accuracy and predict the weather driving fire behavior after an ignition, which requires confronting multiple sources of uncertainty. The skillful management of firefighter safety, costs, community impacts, ecological consequences and political pressures in wildfire events requires sound and defensible decisions based on reliable information and analysis.

APPENDICES

Appendix I: Impacts of Wildfire in the Rio Grande Watershed and Maps of El Rito Watershed



Photo 1: Damaged property after Las Conchs fire post flood, 2011

Source: <http://nmconservation.org/rgwf/plan.html>



Photo 2: Rio Grande River turned black with increasing peak flow after Las Conchas fire, 2011

Source: <http://nmconservation.org/rgwf/plan.html>



Photo 3: Floating debris on Cochiti Lake after Las Conchas fire, 2011
Source: <http://nmconservation.org/rgwf/plan.html>



Photo 4: Flood damage to Santa Clara Pueblo, Los Conchas fire 2011
Source: <http://indiancountrytodaymedianetwork.com/>



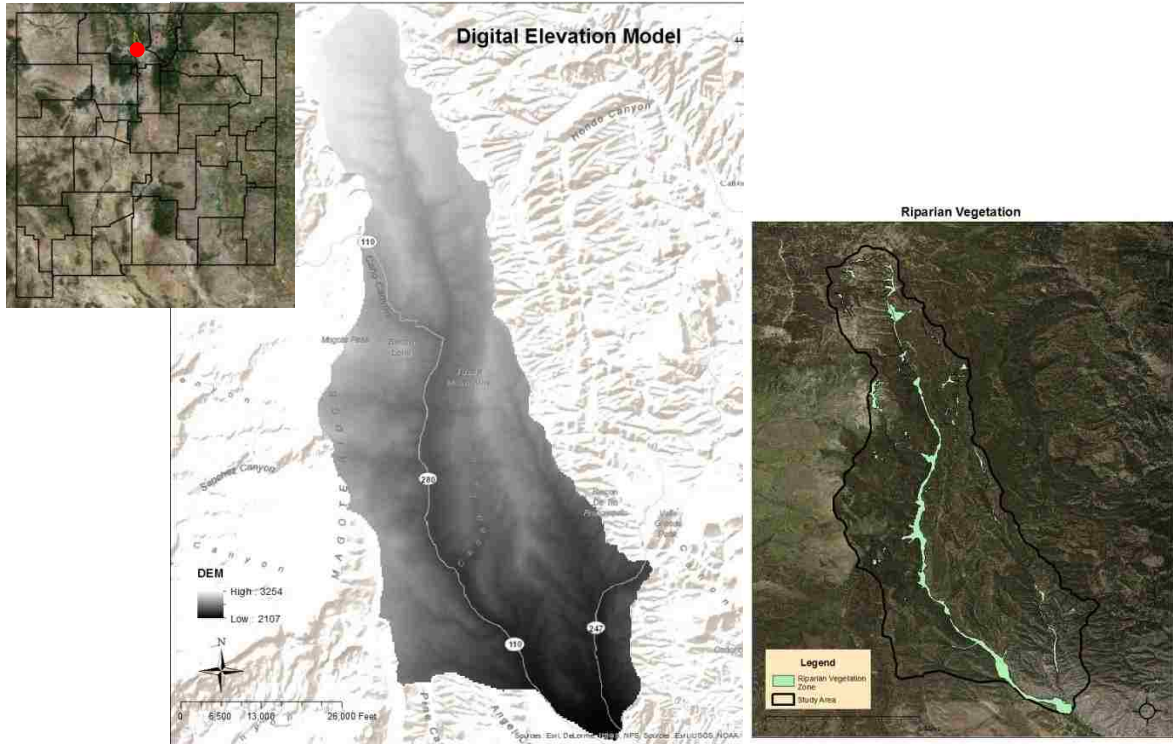
Photo 5: Sediment and debris-filled stream in the Valles Caldera National Preserve after Las Conchas fire, 2011

Source: <https://www.env.nm.gov/swqb/Wildfire/>

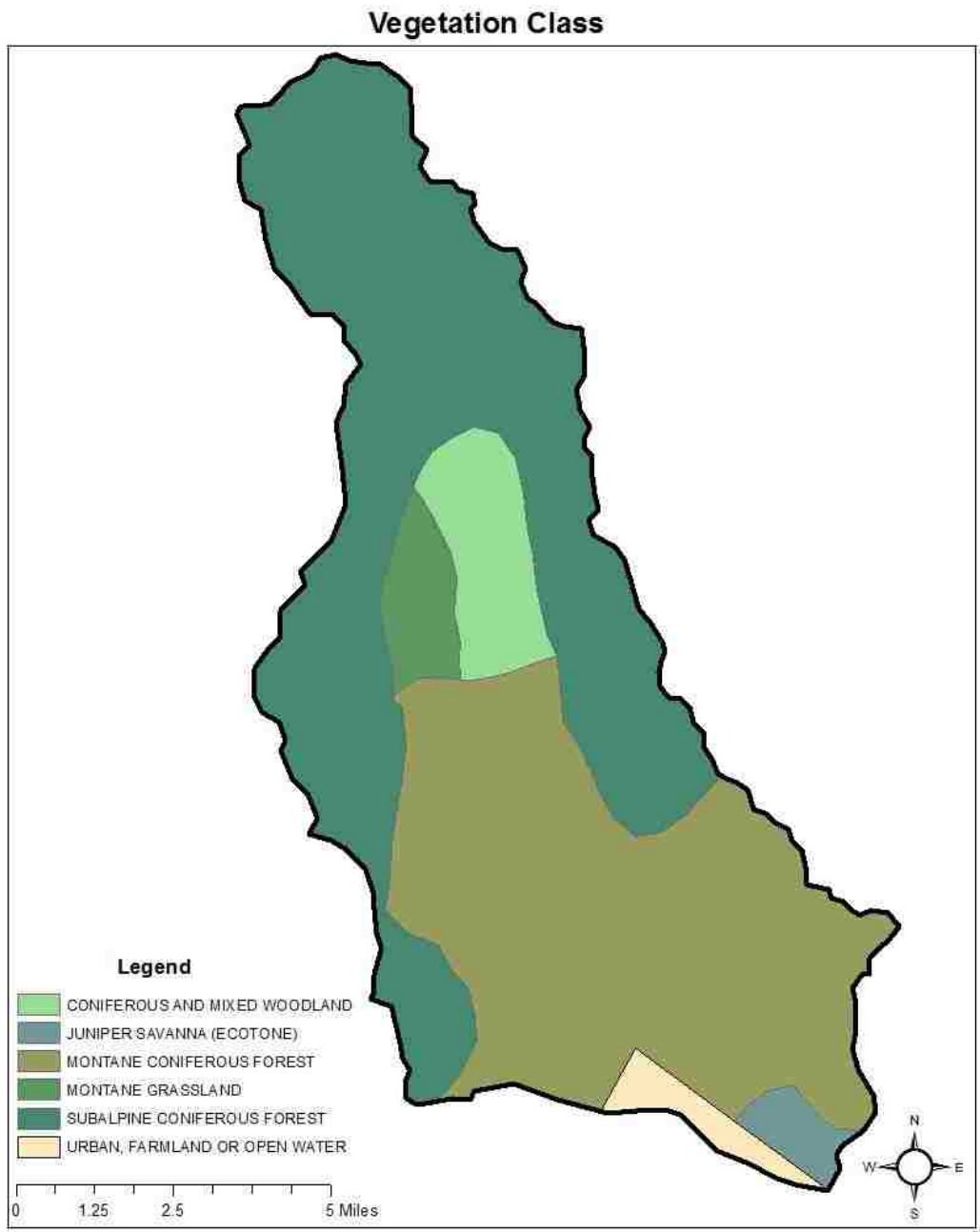


Photo 6: After two years of Las Conchas fire, burning condition in the Jemez forest and poor water quality stream in Valles Caldera National Preserve, 2013

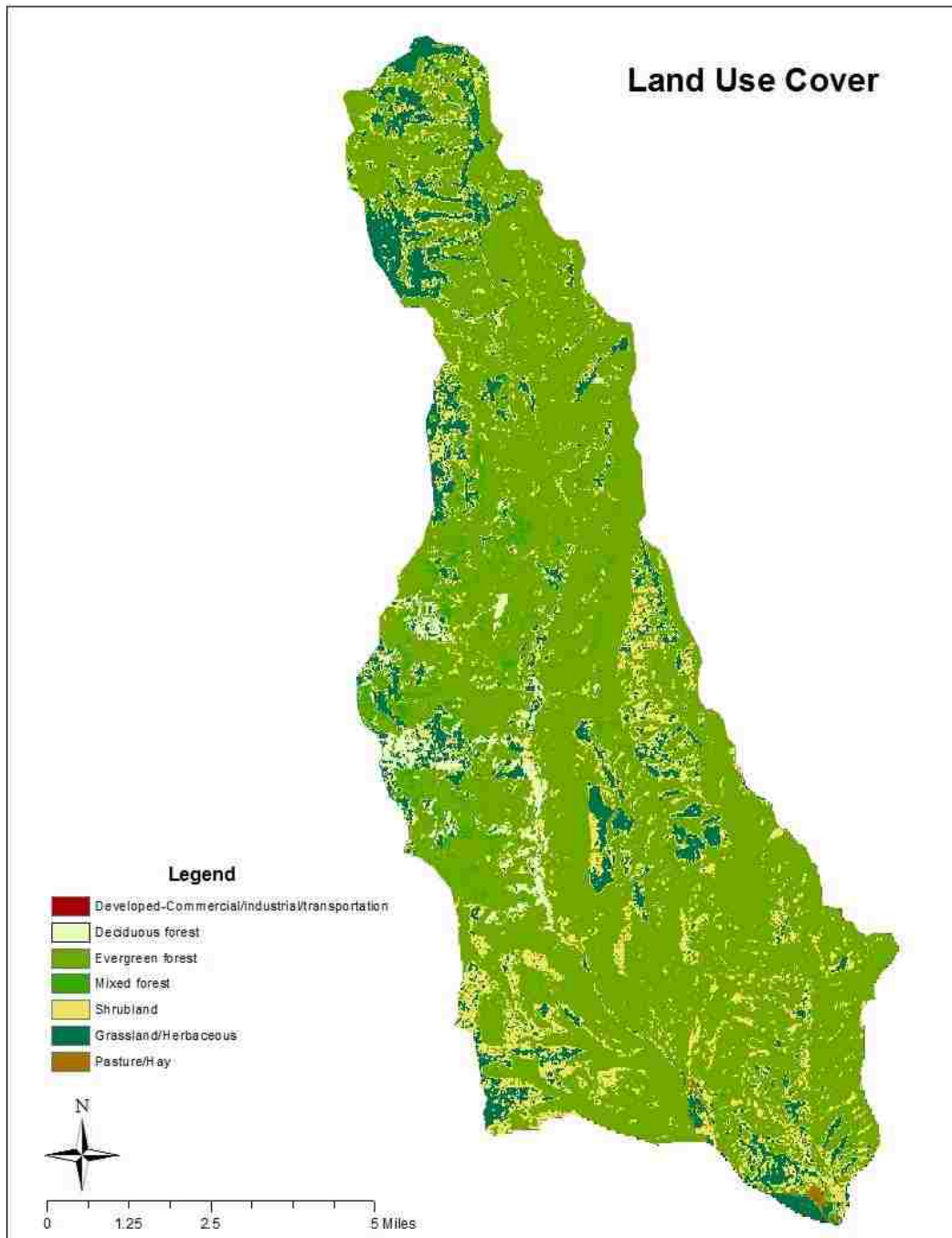
Source: *Zakia Afrin*



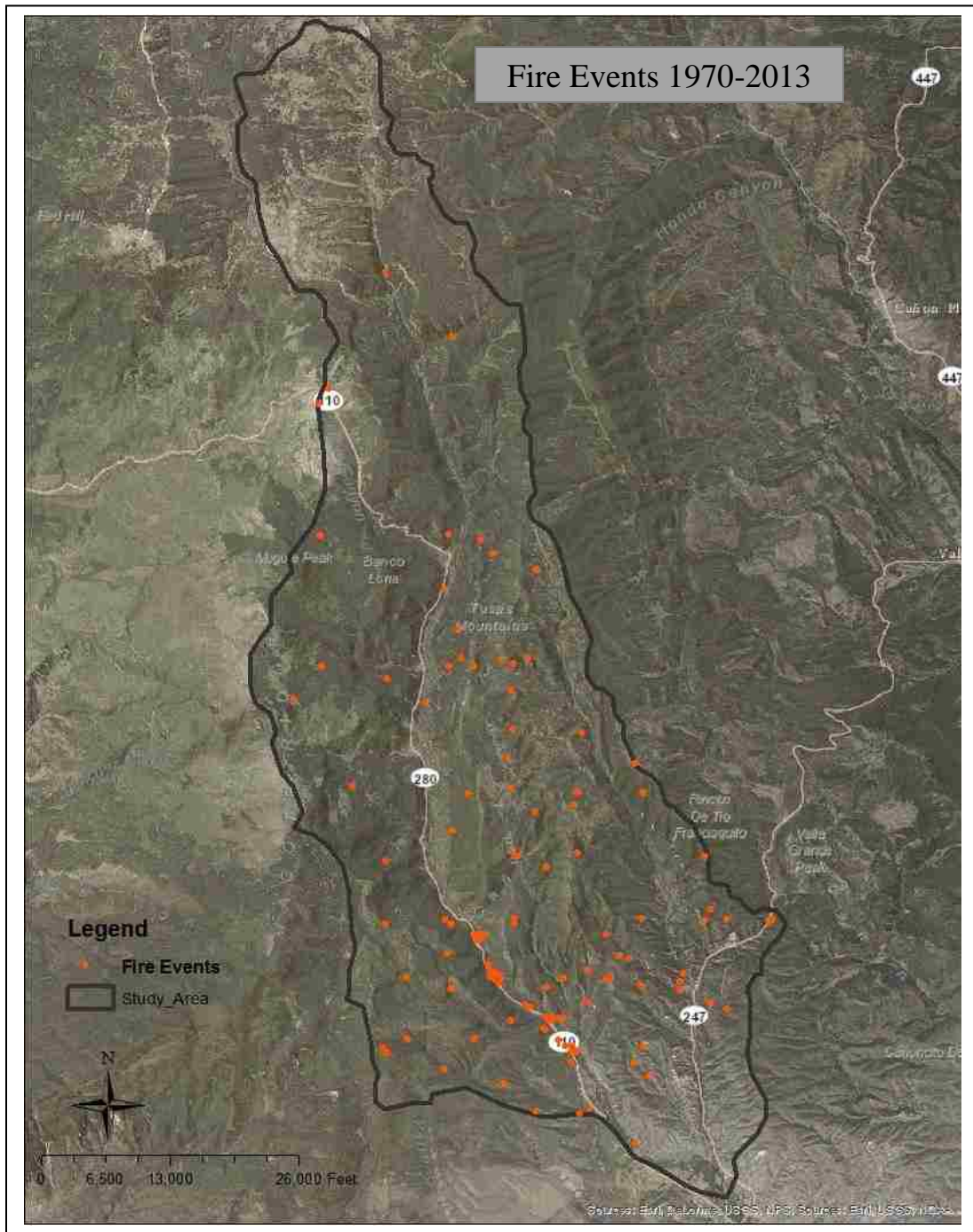
Map 1: Location of El Rito Sub-Watershed with Digital Elevation Model and the Riparian Vegetation Zone



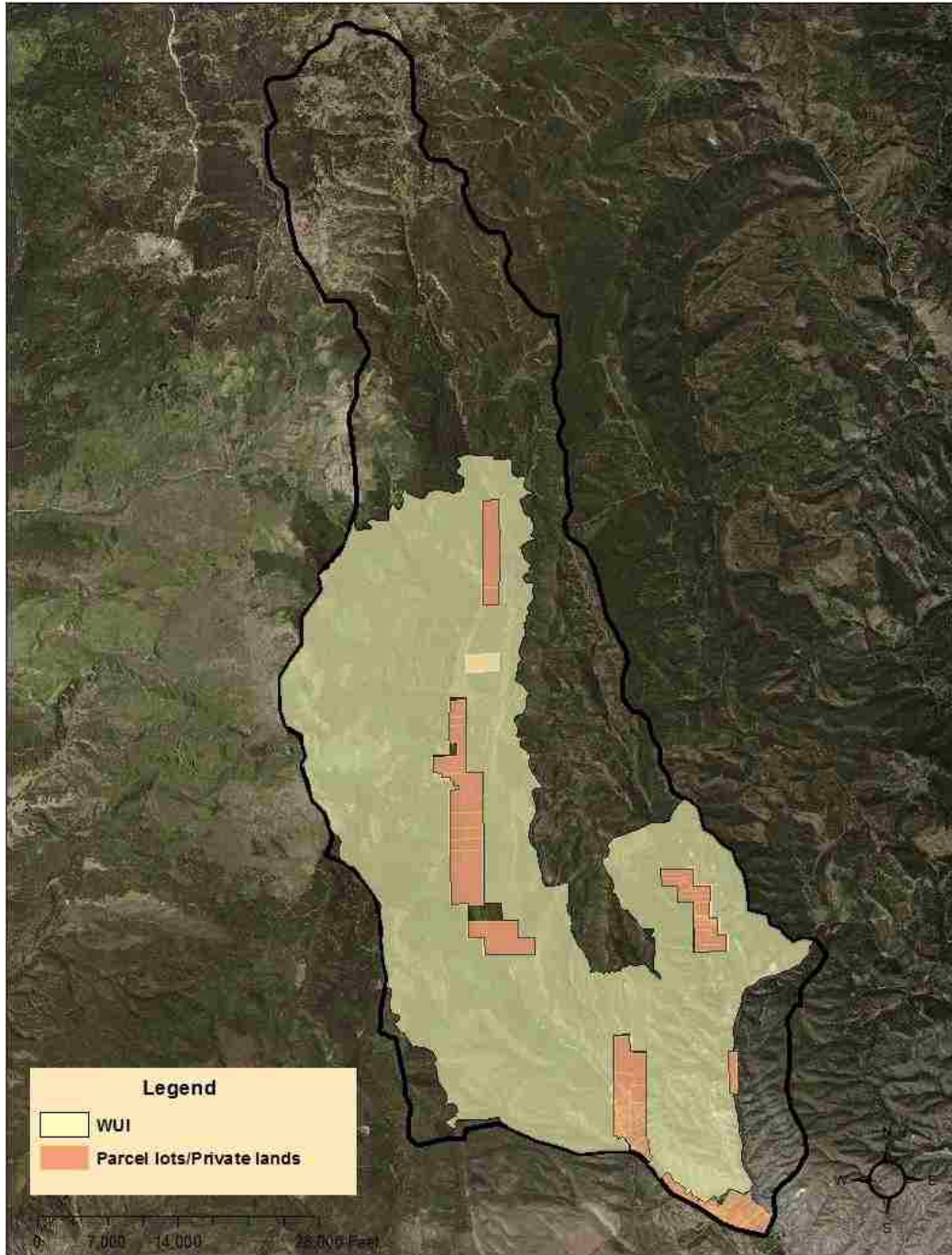
Map 2: Vegetation Classification of El Rito Watershed



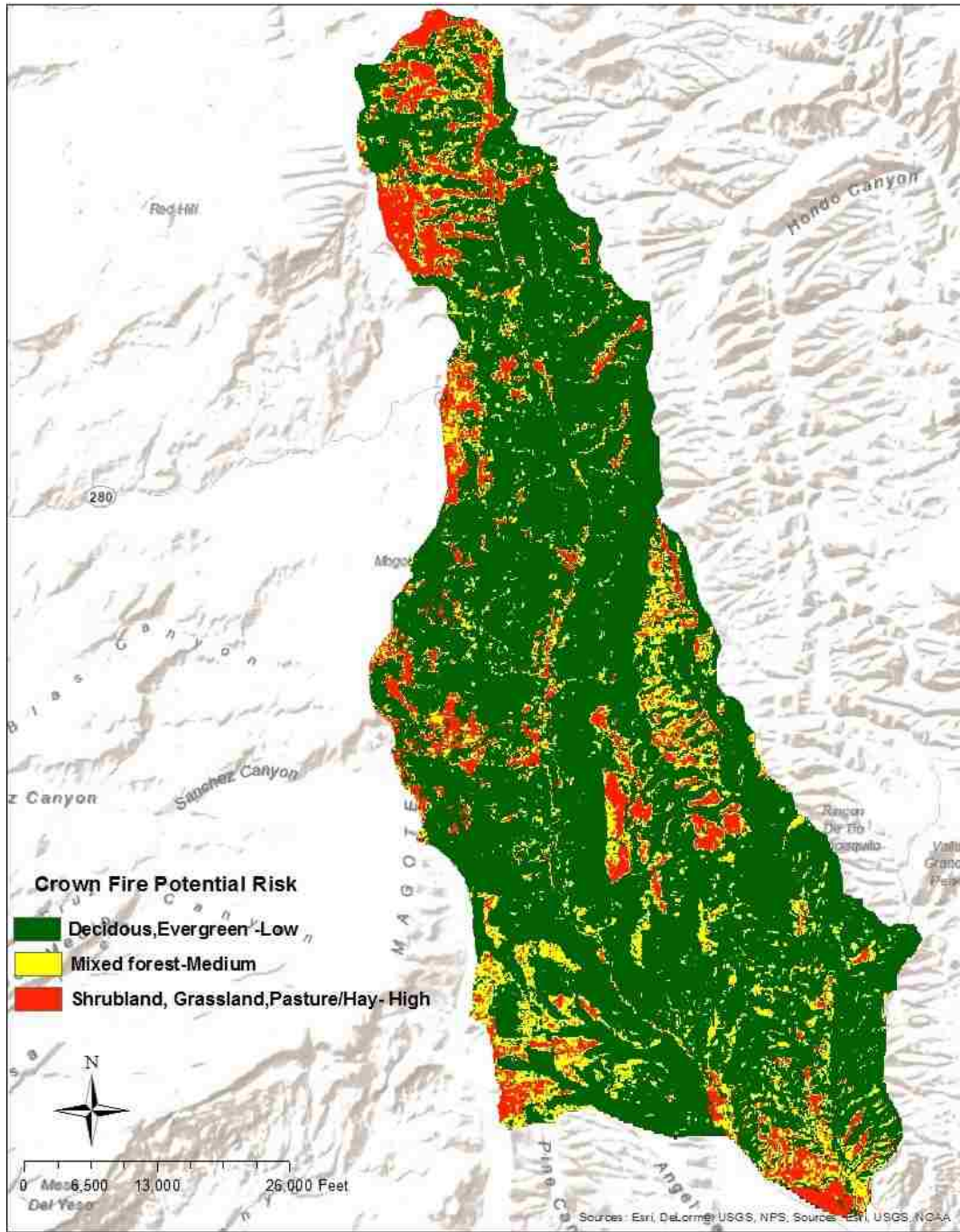
Map 3: Land Use Cover of El Rito Watershed



Map 4: Historical Fire Events (1970-2013) of El Rito Watershed

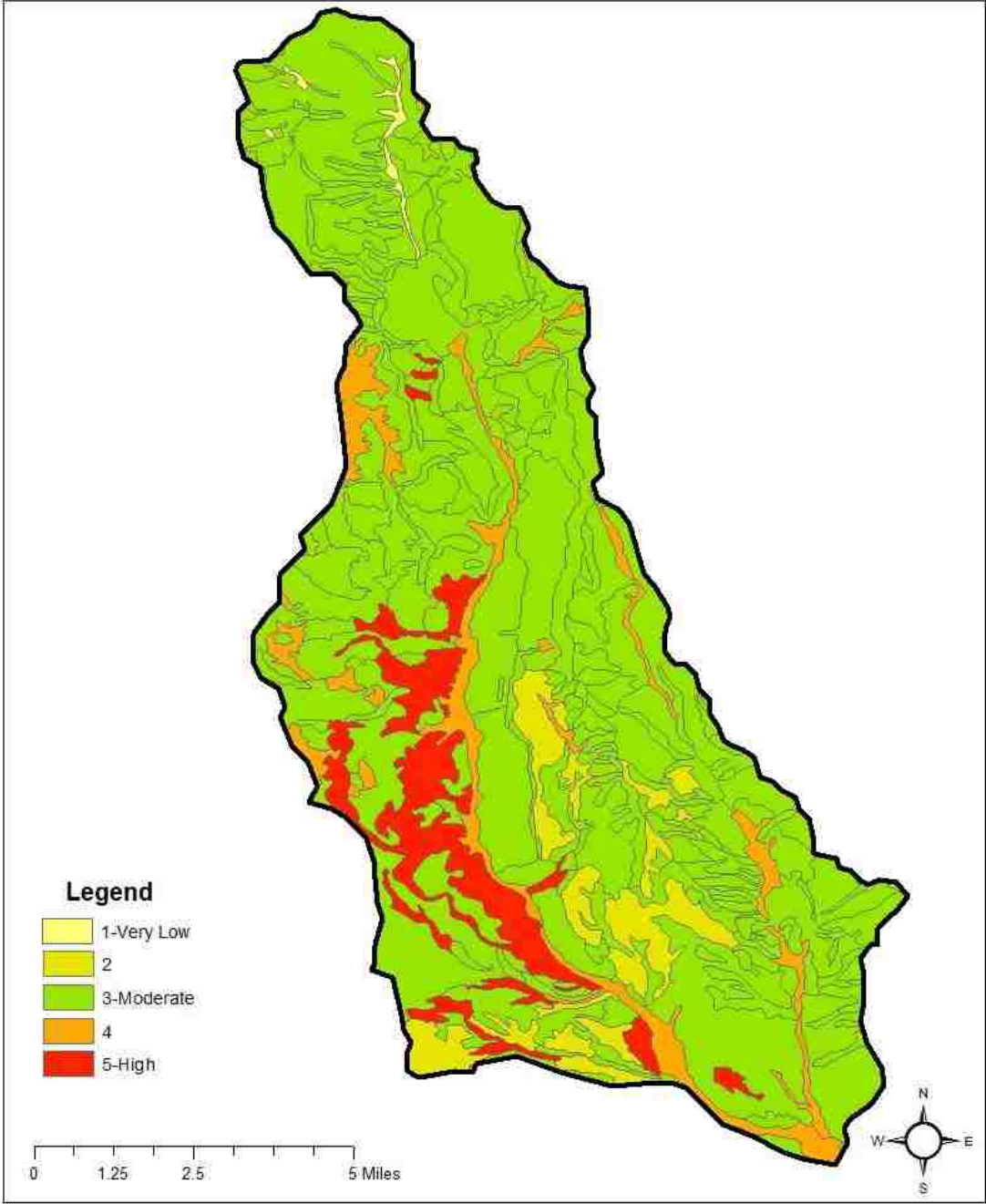


Map 5: Wild Land Urban Interface (WUI) and Private Lands of El Rito Watershed



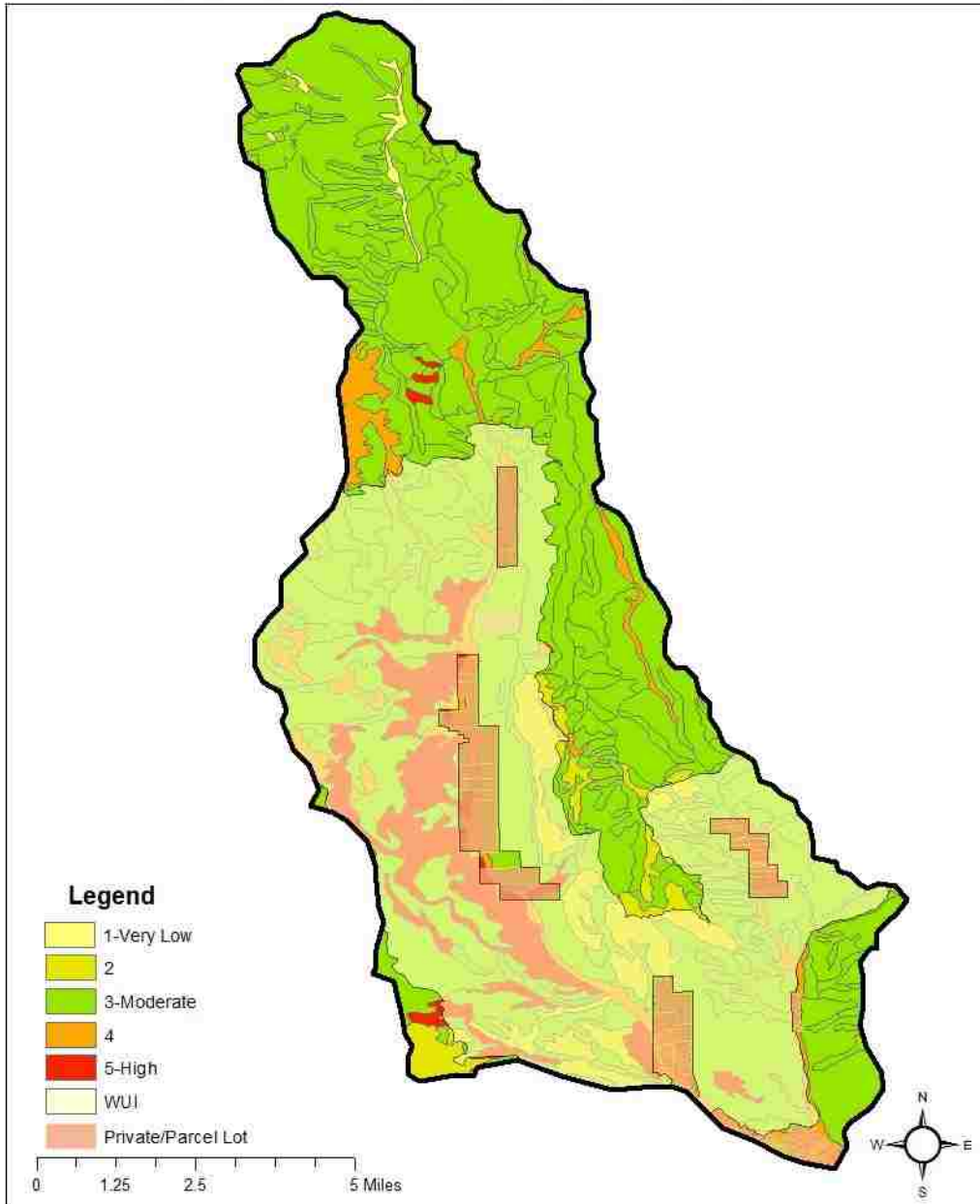
Map 6: Crown Fire Potential Risk of El Rito Watershed

Erosion Probability

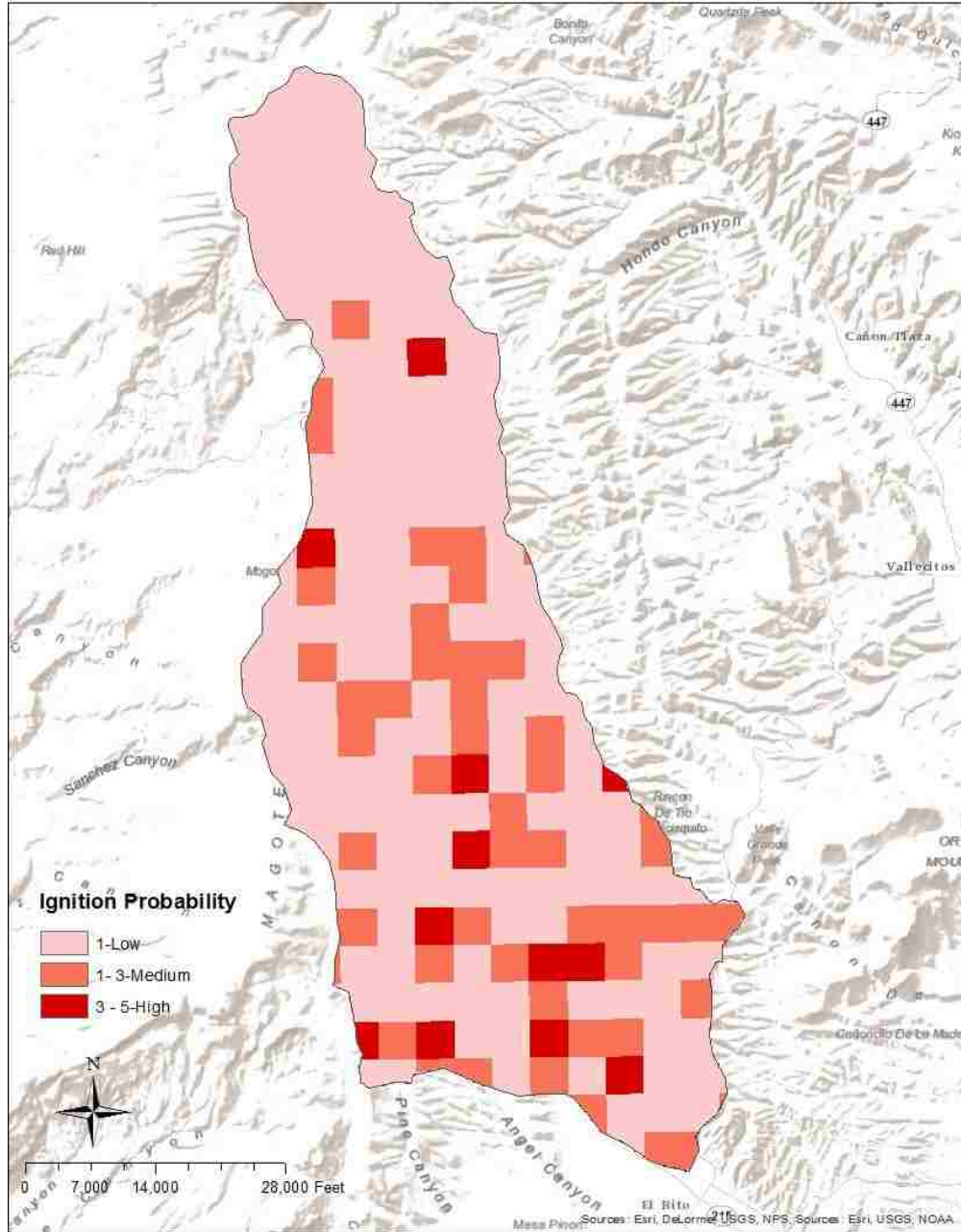


Map 7: Erosion Risk Probability Based on Soil Classification of El Rito Watershed

Erosion Risk Area-Vulnerable WUI & Private Lands



Map 8: Soil Erosion Risk Area with WUI and Private Lands of El Rito Watershed



Map 9: Ignition Probability of El Rito Watershed

Appendix II: Logistic Regression and Powersim Simulation Results

1. Wildfire (Scenario 4.5):

For developing this model, all causes of fire data was considered in terms of hydrologic characterization from the 4.5 scenario climate model and the Receiver Operating Characteristic (ROC) was 0.87. Precipitation, temperature, evapotranspiration, snow water equivalent and soil moisture content are highly correlated with the occurrence of wildfires. The negative values of slope indicate the decreasing occurrence of wildfires.

2. Wildfire (Scenario 8.5):

For developing this model, all causes of fire data was considered in terms of hydrologic characterization from the 8.5 scenario climate model and Roc was 0.90, which indicates a reasonable fit of the model to the data.. Four months precipitation, four months snow water equivalent and soil moisture content are highly correlated with the occurrence of wildfires.

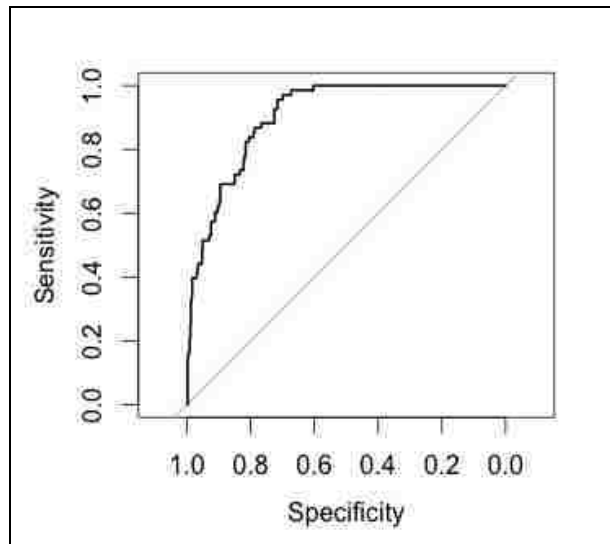


Figure a: Receiver Operating Characteristic (ROC) Curve for model

Because of the importance of past hydrological conditions in predicting future fire events, cumulative totals of precipitation, runoff, evapotranspiration (ET), soil moisture content (SMC), and snow water equivalent (SWE) were taken for previous periods of four months, twelve months and twenty-four months.

Table a: intercepts and slopes of hydrologic climatic variables 4.5 scenario

Variable	Slope and Intercept
Intercept	12.46 (intercept)
Four month precipitation	-0.04
Four month soil moisture content	-0.02
Four month runoff	0.19
Maximum temperature	0.72
Soil moisture content	0.06
Runoff	-0.34
Twelve month evapotranspiration	0.02

Table b: intercepts and slopes of hydrologic climatic variables of 8.5 scenario

Variable	Slope and Intercept
Intercept	-31.26 (intercept)
Four month precipitation	-0.14
Four month evapotranspiration	0.09
Four month snow water equivalent	-0.08
Four month soil moisture content	-0.04
Four moRunoff45	0.43
Precipitation85	0.16
Evapotranspiration85	-.20
SWE_85	0.14
Max.Temp85	0.40
SMC 85	0.29
Runoff	-0.55
Twelve month evapotranspiration	0.09
Twelve month soil moisture content	-0.02
Two year precipitation	-0.02
Two year soil moisture content	0.01

Powersim Tool Simulation Results-4.5 Scenario

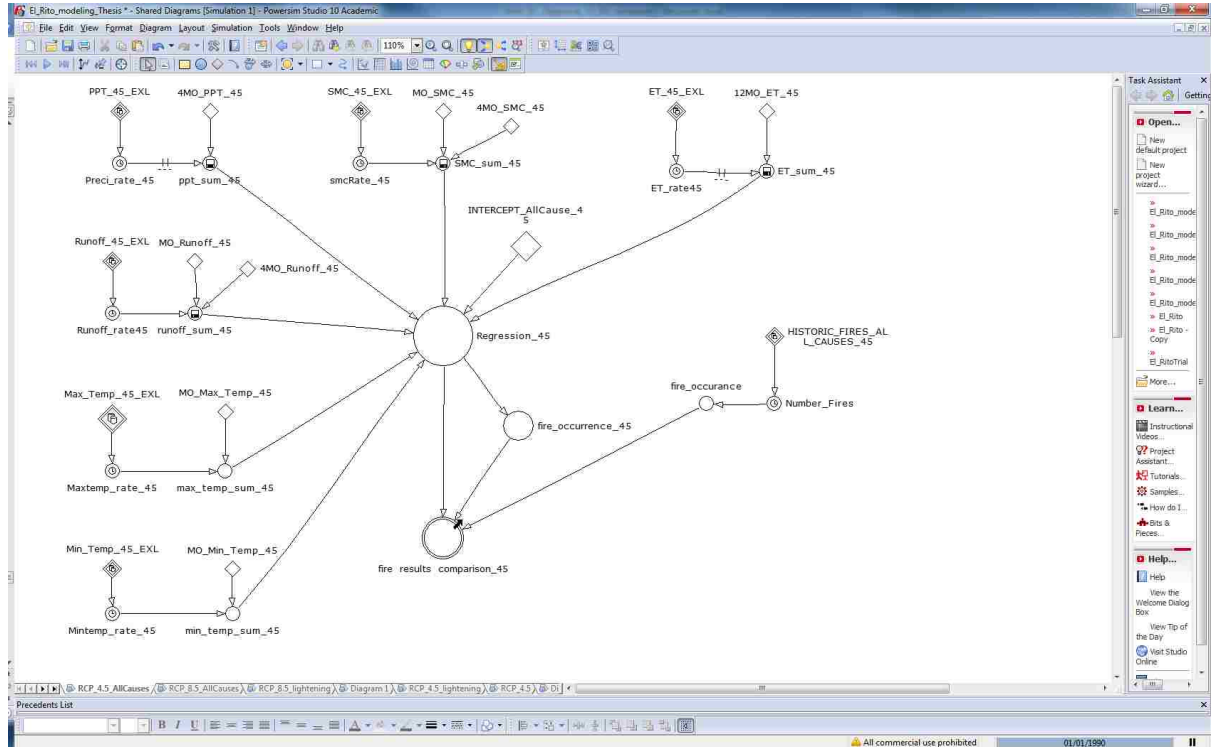


Figure b: Simulation of probability of fire occurrence for 4.5 scenario

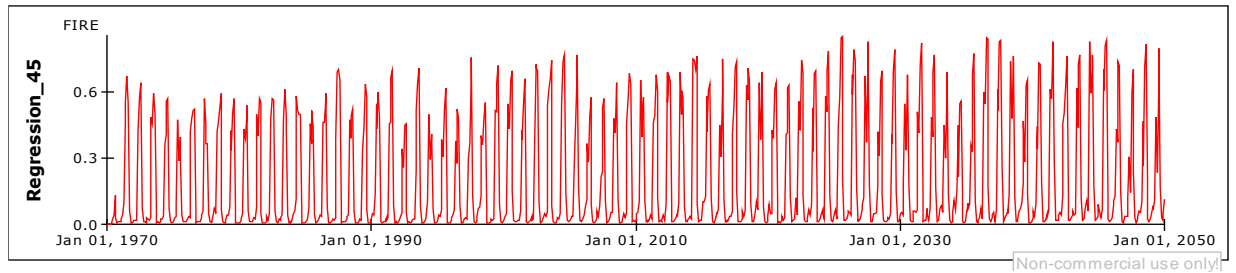


Figure c: Simulation result of probability of fire occurrence for 4.5 scenario

Powersim Tool Simulation Results-8.5 Scenario

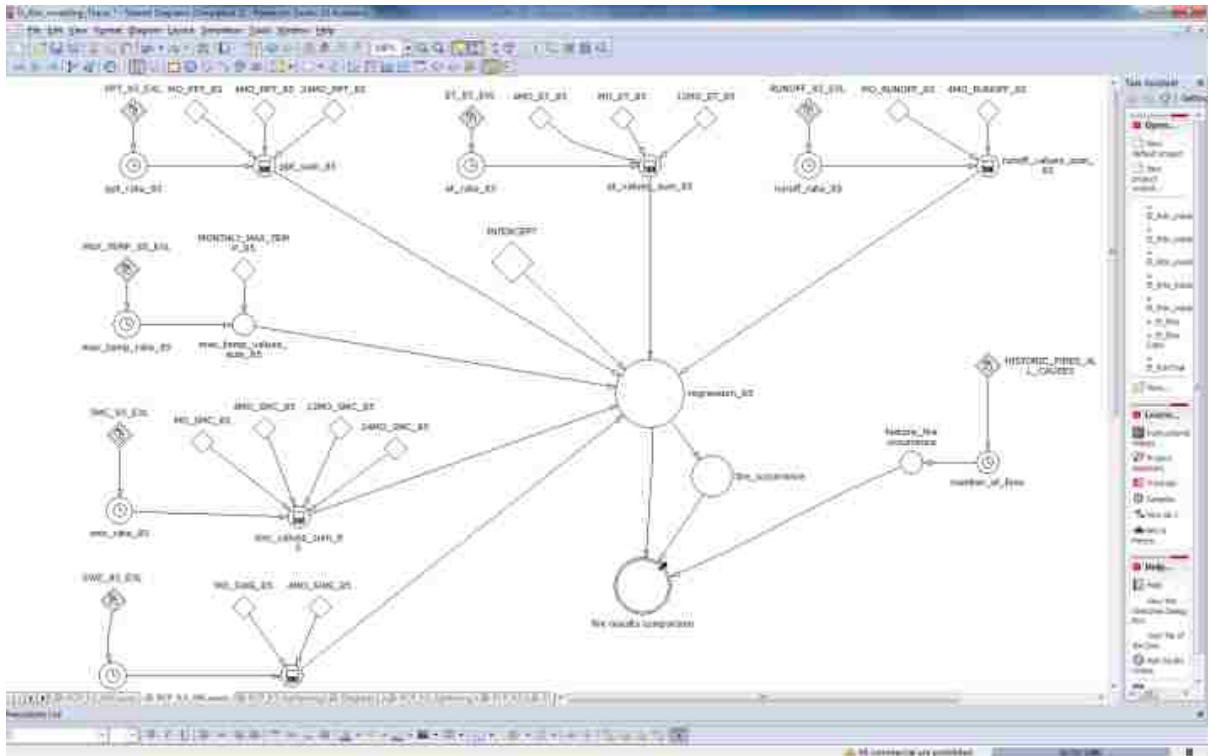


Figure d: Simulation of probability of fire occurrence for 8.5 scenario

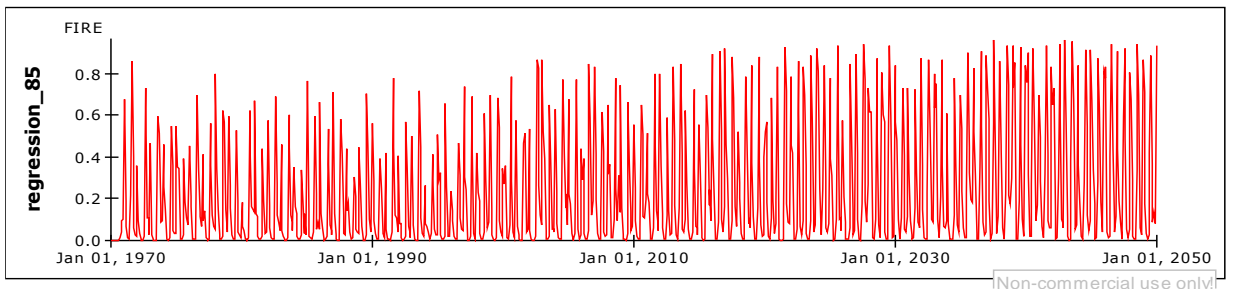


Figure e: Simulation result of probability of fire occurrence for 8.5 scenario

Appendix III: Climate -Hydrological Variables and Wildfire Data

Data a: Downscaled 4.5 scenario and 8.5 scenario climate-hydrologic variables of El Rito from Bureau of Reclamation (BoR, 2014)

YEAR	Month	Precipitation (mm/m)		Evapotranspiration (mm/m)		Snow Water Equivalent (mm/m)		Max. Temp (deg C)		Min. Temp (deg C)		Soil Moisture Content (mm/m)		Runoff (mm/m)		Wind speed (m/s)	
		4.5	8.5	4.5	8.5	4.5	8.5	4.5	8.5	4.5	8.5	4.5	8.5	4.5	8.5	4.5	8.5
1950	01	38.836	39.985	11.105	10.768	1.2639	2.3698	2.9653	2.7538	-12.212	-12.431	297.71	297.28	2.7538	2.656	3.1816	3.1816
1950	02	24.384	24.873	13.657	13.507	17.279	19.862	5.9383	5.801	-9.6821	-9.7217	304.19	303.71	2.9257	3.3156	3.1681	3.1681
1950	03	37.764	37.406	25.342	25.34	19.912	19.806	9.4236	9.3353	-6.919	-6.957	310.84	313.16	5.2942	5.3739	3.2973	3.2973
1950	04	24.783	24.885	48.463	48.51	12.877	13.354	14.856	14.842	-3.1116	-3.1071	323.93	324.88	5.7872	5.9095	3.4046	3.4046
1950	05	25.301	25.529	72.438	72.166	0.14422	0.228	19.838	19.846	1.4752	1.4898	305.56	307.32	2.9703	3.0186	3.1136	3.1136
1950	06	23.408	24.012	56.215	57.354	0	0	25.292	25.236	5.834	5.7921	255.97	258.31	1.9465	1.9281	2.9568	2.9568
1950	07	39.268	40.293	40.943	42.739	0	0	27.643	27.505	9.3432	9.28	222.28	223.34	2.085	2.0971	3.0444	3.0444
1950	08	65.31	66.149	54.208	54.701	0	0	25.983	25.937	8.8392	8.82	219.57	220.5	3.1158	3.2036	2.6834	2.6834
1950	09	33.777	35.92	33.799	35.4	0	0	22.922	22.804	4.5286	4.5031	226.57	227.44	2.1272	2.2242	2.5842	2.5842
1950	10	39.282	39.565	22.818	22.376	0	0.00033333	17.375	17.384	-1.0222	-0.94968	225.7	226.73	3.1695	3.2292	2.6972	2.6972
1950	11	37.442	38.82	12.348	13.389	0.34522	0.50011	9.188	9.9888	-6.9408	-7.0809	239.2	240.73	3.0918	2.9537	2.9415	2.9415
1950	12	29.856	28.516	9.7164	8.4185	6.0219	7.6336	3.7413	3.8932	-11.628	-11.616	253.4	254.17	2.202	2.2441	2.9113	2.9113
1951	01	32.14	32.378	10.029	10.053	19	19.262	3.3096	3.4144	-12.214	-12.152	259.22	260.19	2.3358	2.2732	3.0324	3.0324
1951	02	22.54	22.528	12.626	12.369	31.091	33.523	6.155	6.2917	-9.6886	-9.5593	266	266.29	2.6914	2.799	3.0516	3.0516
1951	03	35.936	35.511	22.55	22.474	30.36	32.906	9.8623	9.9587	-6.8836	-6.8906	275.03	275.64	4.9712	4.7939	3.2239	3.2239
1951	04	33.711	33.186	39.954	39.766	23.699	26.863	14.701	14.876	-2.8044	-2.7268	289.78	288.83	7.8059	7.9339	3.2771	3.2771
1951	05	27.108	27.133	59.424	60.008	4.3686	5.2679	19.844	19.835	1.5878	1.5926	294.25	295.24	6.2052	6.7677	3.0472	3.0472
1951	06	27.798	27.67	58.669	59.159	0	0	25.025	25.079	5.8602	5.9475	259.4	260.57	2.3567	2.4438	3.0335	3.0335
1951	07	50.11	51.489	52.716	53.207	0	0	27.137	27.063	9.4404	9.4042	226.74	227	2.3109	2.3845	3.0329	3.0329
1951	08	72.113	71.305	59.922	59.625	0	0	25.717	25.683	8.7121	8.6705	224.64	226.21	3.4746	3.5336	2.6453	2.6453
1951	09	32.7	31.91	34.859	35.507	0	0	22.581	22.607	4.5465	4.5398	231	231.17	2.2077	2.1934	2.5715	2.5715
1951	10	34.478	33.806	22.662	21.235	0	0	16.787	16.81	-1.0549	-1.0401	227.56	226.9	2.8183	2.8675	2.7349	2.7349
1951	11	33.394	33.622	10.953	11.141	0.97067	0.39911	8.7856	8.7143	-7.3533	-7.4242	236.83	236.69	2.3801	2.4989	2.9103	2.9103
1951	12	24.468	25.344	8.7357	10.001	10.338	10.002	4.5306	4.3947	-11.383	-11.446	244.76	245.39	2.0577	2.1162	3.1314	3.1314
1952	01	42.427	44.846	10.734	10.832	20.422	18.757	2.8824	2.8136	-12.903	-12.855	249.86	251.01	2.128	2.2987	3.1817	3.1817
1952	02	23.729	24.157	12.035	12.364	42.194	40.923	5.4022	5.3793	-10.456	-10.494	256.1	258.76	2.8711	2.7875	3.0241	3.0241
1952	03	45.365	46.153	23.555	21.317	40.815	41.429	9.8246	9.6265	-6.3544	-6.4273	267.31	269.07	5.9928	6.6938	3.2805	3.2805
1952	04	32.014	30.769	37.582	37.742	34.084	32.309	14.39	14.409	-3.0606	-3.1068	290.31	296.15	10.459	11.039	3.4366	3.4366
1952	05	25.14	24.225	62.291	64.625	5.1068	3.777	19.93	19.982	1.4738	1.5194	301.44	304.75	7.5534	6.8972	3.0714	3.0714
1952	06	25.415	25.444	60.562	60.616	0	0	25.096	25.068	5.8148	5.8065	261.94	261.42	2.2281	2.101	2.9619	2.9619
1952	07	47.05	48.929	49.468	49.763	0	0	27.3	27.242	9.4542	9.3953	225.22	225.23	2.2966	2.3757	3.0208	3.0208
1952	08	72.085	72.969	58.809	60.419	0	0	25.639	25.548	8.6342	8.5692	222.41	224.18	3.4342	3.5228	2.6347	2.6347
1952	09	33.699	31.663	34.89	34.307	0	0	22.807	22.809	4.5568	4.5315	230.75	230.92	2.2539	2.1744	2.6018	2.6018
1952	10	27.814	27.737	21.258	19.369	0	0	17.406	17.394	-1.154	-1.1808	228.42	226.99	2.4181	2.503	2.7703	2.7703
1952	11	31.824	29.514	11.266	11.695	0.26633	0.54044	9.2838	9.2486	-6.9771	-7.0807	232.67	232.96	2.4511	2.3064	2.9094	2.9094
1952	12	28.729	28.263	9.1154	10.139	7.5739	6.6506	4.6009	4.7092	-10.997	-10.974	241.79	240.52	2.1658	2.3377	3.089	3.089
1953	01	36.973	37.31	10.306	10.435	17.492	15.963	3.6559	3.6224	-11.346	-11.322	248.76	248.22	2.2658	2.2551	3.1247	3.1247
1953	02	22.017	20.247	11.678	11.279	33.67	31.112	5.7153	5.9993	-10.266	-10.022	256.61	256.46	2.8001	2.4873	3.119	3.119
1953	03	31.467	32.44	21.104	20.376	32.474	29.885	9.6738	9.8024	-6.4732	-6.3962	267.35	265.09	4.8629	4.6514	3.3058	3.3058
1953	04	25.582	24.552	34.609	35.508	21.021	21.673	14.111	14.281	-3.1267	-3.069	283.76	280.67	6.319	5.9991	3.2426	3.2426
1953	05	29.283	28.996	61.838	59.939	3.8854	3.6233	19.811	19.933	1.5828	1.596	284.07	280.48	4.7383	4.5594	2.9486	2.9486
1953	06	21.228	20.189	50.844	48.287	0.00011111	0	25.356	25.408	5.6863	5.7225	251.11	248.31	1.8919	1.8322	3.0335	3.0335
1953	07	48.635	49.422	47.212	47.643	0	0	27.006	27.062	9.3937	9.4466	219.9	220.23	2.2698	2.3047	3.1349	3.1349
1953	08	56.416	57.715	49.99	52.03	0	0	25.945	25.881	8.7703	8.6747	220.98	220.71	2.8023	2.7308	2.5222	2.5222
1953	09	34.679	35.445	33.572	32.644	0	0	23.11	22.997	4.8915	4.7911	223.31	222.27	2.167	2.2393	2.5219	2.5219
1953	10	28.411	27.661	20.123	19.503	0	0	17.252	17.381	-1.1967	-1.1292	223.6	223.2	2.4321	2.4476	2.7244	2.7244
1953	11	36.042	36.176	12.605	12.773	0.24911	0.12389	9.4127	9.4495	-6.9984	-6.9444	229.7	229.85	2.7589	2.5424	2.9291	2.9291
1953	12	28.12	29.426	9.7092	8.7176	5.6197	8.7048	4.0337	4.0676	-11.23	-11.149	242.64	240.16	2.155	2.1407	3.0858	3.0858
1954	01	39.576	39.695	10.524	10.908	16.492	22.162	3.093	3.9955	-12.273	-12.39	249.12	246.53	2.5147	2.3204	3.1066	3.1066
1954	02	24.919	24.658	11.447	11.634	31.123	37.992	5.5409	5.6097	-9.9961	-9.9243	259.58	255.2	2.6673	2.8337	2.963	2.963
1954	03	42.507	44.176	20.501	21.316	33.884	38.034	8.8972	8.8106	-7.1469	-7.0696	269.22	267.11	5.1984	5.5508	3.3092	3.3092
1954	04	29.098	30.19	37.927	37.213	29.35	31.576	14.365	14.292	-2.8097	-2.7983	290.39	291.03	7.9286	8.9108	3.3871	3.3871
1954	05	26.014	27.022	62.825	63.98	4.1182	5.1381	19.286	19.23	1.3739	1.4085	297.01	299.71	5.0628	5.7237	3.1287	3.1287
1954	06	19.695	20.276	56.611	58.907	0	0	25.161	25.155	5.8636	5.9102	259.19	261.54	1.9172	1.8843	2.9666	2.9666
1954	07	49.637	49.287	48.47	49.72	0	0	27.165	27.166	9.316	9.3188	221.66	222.03	2.3309	2.257	3.0157	3.0157
1954	08	70.192	69.361	57.396	57.911	0	0	25.738	25.768	8.6971	8.7393	221.67	220.56	3.3289	3.2002	2.4909	2.4909
1954	09	31.833	31.295	35.445	34.239	0	0	22.716	22.759	4.524	4.5079	229.97	228.51	2.0937	2.0555	2.5078	2.5078
1954	10	31.4	34.26	21.87	21.978	0	0	17.606	17.659	-0.77523	-0.72901	225.75	224.21	2.6127	2.8323	3.2155	3.2155
1954	11	40.172	39.701	12.695	11.757	0.41289	0.43556	9.2343	9.2994	-7.1285	-7.0649	233.14	234.25	3.0612	3.0846	2.9436	2.9436
1954	12	22.967	21.083	8.3017	8.898	7.1002	8.1433	3.7945	3.9771	-11.493	-11.389	247.8	248.56	2.0058	1.9933	3.2197	3.2197
1955	01	39.552	38.743	11.061	10.39	17.335	13.346	2.7077	2.8433	-13.207	-13.105	252.23	254.09	2.2155	2.1566	2.9567	2.9567
1955	02	21.587	22.346	11.244	11.998	34.901	32.951	5.8488	5.899	-9.8868	-9.8499	258.81	259.95	2.7481	2.9421	3.0538	3.0538
1955																	

1956	11	35.84	37.426	11.359	12.751	0.15456	0.13944	9.4647	9.392	-6.9116	-6.9221	234.25	232.44	2.6227	2.577	2.988	2.988
1956	12	23.573	24.606	8.5525	9.6844	8.8699	9.4736	3.7443	3.7142	-11.822	-11.786	245.61	243.05	2.2075	1.9686	3.1457	3.1457
1957	01	33.415	34.674	9.97	10.569	15.916	19.637	2.5623	2.4928	-12.885	-12.903	252.15	247.52	2.2557	2.1538	3.2464	3.2464
1957	02	26.6	25.876	11.915	11.765	29.915	33.085	5.774	5.5776	-10.126	-10.24	259.01	254.04	2.6085	2.5027	3.1297	3.1297
1957	03	39.4	38.613	19.983	19.883	34.369	37.157	9.0608	9.9229	-6.9897	-7.0862	267.77	262.84	5.2442	5.2937	3.2536	3.2536
1957	04	24.782	26.85	34.677	35.217	27.572	30.15	14.38	14.309	-3.2229	-3.2582	287.61	283.27	8.4625	8.1739	3.3935	3.3935
1957	05	32.943	32.149	62.17	60.482	3.5904	6.3446	19.238	19.329	1.2994	1.3419	292.9	289.51	5.5511	7.0526	3.0417	3.0417
1957	06	18.375	18.276	55.568	55.671	0	0	25.249	25.198	5.5055	5.4488	260.61	260.17	1.8694	1.9972	3.0775	3.0775
1957	07	49.861	50.376	49.842	50.461	0	0	27.347	27.349	9.5006	9.4876	222.81	220.96	2.3344	2.2345	2.9504	2.9504
1957	08	65.088	64.253	55.747	56.022	0	0	25.885	25.903	8.8649	8.8348	222.19	220.22	3.1632	2.957	2.5807	2.5807
1957	09	33.987	32.676	34.522	32.898	0	0	22.736	22.783	4.7042	4.7486	227.04	224.57	2.2061	2.1734	2.5584	2.5584
1957	10	40.758	41.408	23.727	21.38	0	0	16.795	16.756	-0.9468	-1.0017	225.43	223.4	3.2485	3.3198	2.6268	2.6268
1957	11	42.722	40.977	12.971	13.058	0.40611	0.37378	9.2557	9.3184	-6.7382	-6.7401	238.58	240.15	2.7764	3.4918	2.9895	2.9895
1957	12	22.876	22.995	9.0357	9.0945	14.075	7.2536	4.3152	4.1728	-11.75	-11.879	250.23	255.83	2.155	2.105	3.1169	3.1169
1958	01	33.932	33.972	10.056	10.097	21.216	15.582	3.1389	3.1276	-12.326	-12.328	255.56	260.04	2.2632	2.261	3.0909	3.0909
1958	02	30.557	30.48	12.114	12.882	35.635	29.843	5.8291	5.865	-9.5575	-9.529	261.98	266.03	2.9469	2.8638	3.0028	3.0028
1958	03	45.033	44.866	23.417	23.155	40.94	35.312	9.6395	9.5177	-6.3912	-6.4819	274.05	276.02	6.7719	6.4427	3.3046	3.3046
1958	04	29.914	29.944	38.903	38.791	29.142	27.059	14.654	14.697	-2.7209	-2.7336	299.35	299.49	9.9949	9.5406	3.2465	3.2465
1958	05	29.922	29.385	64.418	64.149	6.307	5.2529	19.818	19.773	1.6541	1.6378	301.96	302.21	8.0796	8.1383	3.0924	3.0924
1958	06	21.898	21.09	60.209	58.841	0	0	24.83	24.908	5.4147	5.4034	265.65	263.87	2.098	1.9845	3.0081	3.0081
1958	07	41.853	42.965	46.967	46.758	0	0	27.453	27.404	9.3379	9.2858	226.09	224.65	2.142	2.1434	3.033	3.033
1958	08	69.928	69.981	58.754	59.745	0	0	25.572	25.558	8.5956	8.5686	220.48	220.52	3.1607	3.1321	2.6263	2.6263
1958	09	39.036	37.604	36.797	34.717	0	0	22.367	22.414	4.5213	4.5509	227.2	226.23	2.3382	2.4533	2.4879	2.4879
1958	10	35.324	37.993	22.434	22.183	0	0.00011111	16.398	16.332	-1.2052	-1.2248	227.86	228.27	2.9645	3.0992	2.6967	2.6967
1958	11	35.535	33.931	12.03	11.724	0.977	0.47767	8.8127	8.7933	7.0992	-7.1251	238.02	240.91	2.5856	2.7234	2.9306	2.9306
1958	12	24.479	24.251	8.8674	8.6059	9.2372	7.457	3.8643	3.916	-11.57	-11.542	248.24	250.99	2.0413	2.0342	3.0075	3.0075
1959	01	35.168	35.053	9.0666	9.7859	19.061	17.451	3.0944	3.1255	-12.539	-12.542	252.9	255.36	2.3017	2.2982	3.0278	3.0278
1959	02	24.956	24.978	11.992	12.226	34.614	32.734	5.5206	5.6302	-9.703	-9.703	260.16	262.39	2.37	2.5802	3.0299	3.0299
1959	03	35.748	35.709	20.973	21.929	38.31	35.251	9.5359	9.6869	-6.9581	-6.8485	267.83	271.37	4.9505	4.764	3.2617	3.2617
1959	04	28.734	28.752	36.706	36.704	30.998	27.655	13.992	13.996	-3.1424	-3.123	285.44	287.04	8.0462	7.7126	3.1816	3.1816
1959	05	26.298	27.111	60.413	59.566	6.6487	6.4499	19.445	19.318	1.2853	1.2339	293.15	291.83	6.5604	6.4514	3.0325	3.0325
1959	06	22.366	23.357	57.133	58.162	0	0	25.04	24.978	5.7466	5.7285	258.91	258.91	2.0789	2.1947	3.0732	3.0732
1959	07	47.057	46.884	48.134	48.282	0	0	27.127	27.152	9.0317	9.0761	222.34	223.15	2.2597	2.2608	2.9925	2.9925
1959	08	67.18	67.623	55.903	56.539	0	0	25.755	25.741	8.5895	8.644	220.5	220.36	3.2267	3.1926	2.5205	2.5205
1959	09	31.403	30.983	32.674	33.04	0	0	22.852	22.896	4.5834	4.6208	227.51	227.29	2.1783	2.0866	2.6016	2.6016
1959	10	24.298	22.704	17.597	17.358	0	0	17.177	17.206	-1.4784	-1.4685	224.75	223.84	2.4063	2.2248	2.7838	2.7838
1959	11	41.11	42.976	12.695	12.855	0.53133	0.22611	8.703	8.6798	-7.4428	-7.3797	229.98	227.25	2.6352	2.6288	2.8699	2.8699
1959	12	28.405	29.137	9.5872	9.459	11.318	10.053	3.977	3.8896	-11.408	-11.405	242.45	243.02	2.1579	2.1138	3.0138	3.0138
1960	01	38.08	36.031	10.115	10.291	22.048	22.165	2.6384	2.6797	-12.826	-12.856	248.7	249.35	2.4432	2.2765	3.1245	3.1245
1960	02	27.73	27.149	12.393	12.485	37.869	36.996	5.5111	5.4938	-9.8887	-9.938	257.77	257.07	2.939	2.9466	3.039	3.039
1960	03	37.097	37.18	21.457	21.841	40.326	37.825	9.6963	9.6281	-6.8852	-6.9579	269.47	269.13	5.4424	5.2919	3.2304	3.2304
1960	04	26.087	25.952	35.673	37.007	30.533	27.722	14.546	14.614	-3.2942	-3.2485	288.96	288.61	8.6807	8.327	3.313	3.313
1960	05	23.759	24.327	60.389	59.992	4.8328	3.7919	19.207	19.091	1.045	0.98255	295.55	292.16	5.7005	5.0397	2.8794	2.8794
1960	06	22.091	21.714	57.782	56.238	0	0	25.155	25.14	5.5437	5.5039	257.22	255.23	1.8627	1.8133	2.9897	2.9897
1960	07	52.469	51.206	49.281	48.601	0	0	27.025	27.08	9.368	9.3866	220.46	219.67	2.3448	2.3359	3.0518	3.0518
1960	08	68.301	67.711	58.101	55.572	0	0	25.583	25.644	8.411	8.4731	222.34	221.14	3.2677	3.2858	2.6067	2.6067
1960	09	36.648	36.292	35.671	36.775	0	0	22.546	22.598	4.2718	4.322	228.72	229.11	2.331	2.2968	2.489	2.489
1960	10	31.422	32.988	20.579	22.173	0.0002222	0.17139	17.116	17.116	-1.0605	-1.0762	227.99	227.2	2.6898	2.6647	2.7758	2.7758
1960	11	34.682	36.221	12.126	11.985	1.1773	0.47256	9.1691	9.061	-6.8757	-6.9619	226.55	235.65	2.9145	2.6347	3.2931	3.2931
1960	12	23.328	23.52	8.4195	8.7287	6.1474	10.326	3.9349	3.7747	-11.533	-11.592	248.42	245.33	1.9412	2.0789	3.1353	3.1353
1961	01	27.91	27.692	10.21	9.799	16.291	18.039	3.7763	3.6371	-12.01	-12.067	251.82	250.58	2.1559	2.1802	3.1071	3.1071
1961	02	22.487	22.788	12.896	12.594	25.353	28.312	6.6208	6.4688	-9.2451	-9.4041	257.91	256.3	2.6982	2.6364	3.0141	3.0141
1961	03	46.675	44.963	21.979	20.538	23.293	26.73	8.8449	8.9363	-7.001	-6.9407	267.24	266.02	5.0382	4.7194	3.2848	3.2848
1961	04	28.36	28.448	36.232	37.554	23.845	26.254	14.562	14.519	-3.206	-3.2629	286.6	285.9	7.6785	7.8928	3.1835	3.1835
1961	05	32.345	33.191	61.548	62.258	3.7058	4.002	19.512	19.587	1.5243	1.5811	290.24	290.36	6.1164	6.0858	3.0675	3.0675
1961	06	20.954	22.147	54.546	56.216	0	0	25.095	25.053	6.6207	5.5507	258.79	258.87	2.0757	2.0463	3.0884	3.0884
1961	07	49.437	50.489	49.672	50.945	0	0	27.001	27.02	9.0812	9.101	223.5	223.7	2.3314	2.3252	3.088	3.088
1961	08	66.478	66.951	57.73	57.566	0	0	25.61	25.608	8.3899	8.3962	222.87	221.59	3.301	3.1851	2.5347	2.5347
1961	09	31.092	31.331	33.871	34.438	0	0	22.706	22.65	4.32	4.2435	226.41	227.15	1.9928	2.0135	2.5134	2.5134
1961	10	26.71	26.32	20.161	21.116	0	0	17.213	17.124	1.2324	1.2835	222.27	222.47	2.2493	2.135	2.797	2.797
1961	11	43.68	42.88	12.89	11.399	0.21656	0.484	8.7349	8.7973	-6.9366	-6.8789	227.98	227.25	2.7017	2.9285	2.9403	2.9403
1961	12	27.496	27.694	8.5363	8.8472	12.992	11.334	3.7402	3.7742	-11.504	-11.453	240.29	241.76	2.0164	1.9953	2.9798	2.9798
1962	01	28.035	26.973	9.7039	9.5491	24.703	22.672	3.4814	3.5018	-12.374	-12.353	246	247.16	2.2569	2.4212	3.1181	3.1181
1962	02	28.534	28.18	12.627	12.616	33.658	30.066	5.719	5.6946	-10.235	-10.25	253.27	255.63	2.5754	2.5084	3.1682	3.1682
1962	03	44.053	42.589	21.669	21.951	37.677	34.										

1964	09	36.558	36.636	35.04	33.193	0	0	22.162	22.141	4.3562	4.331	223.51	224.04	2.1723	2.4137	2.4857	2.4857
1964	10	39.757	38.218	20.528	22.2	0	0	15.955	16.048	-1.5995	-1.5329	223.44	225.56	3.3142	3.053	2.8241	2.8241
1964	11	33.112	33.734	11.392	11.366	0.86289	1.435	8.4148	8.3019	-7.6925	-7.7785	239.15	237.54	2.5498	2.5943	2.948	2.948
1964	12	24.133	23.428	8.6833	8.4936	8.7044	8.8699	3.1931	3.284	-11.916	-11.848	248.35	248.23	2.0619	2.0111	3.0449	3.0449
1965	01	33.378	33.612	10.934	10.704	17.575	18.973	2.8259	2.9087	-12.747	-12.659	253.37	253.02	2.3756	2.3744	3.1689	3.1689
1965	02	25.516	26.034	11.998	11.83	29.549	30.125	5.285	5.2635	-10.553	-10.533	260.88	260.67	2.6876	2.6115	3.0383	3.0383
1965	03	45.09	43.508	20.915	21.412	33.637	33.78	9.0445	9.1425	-6.8101	-6.801	268.37	269.69	6.0206	5.7949	3.167	3.167
1965	04	26.998	27.852	34.358	35.505	30.755	28.148	13.88	13.862	-3.7344	-3.6282	290.21	291.12	8.2105	8.5907	3.2951	3.2951
1965	05	31.576	30.443	61.745	61.248	6.4324	5.2184	18.976	18.981	1.1141	1.1131	297.49	296.9	7.0918	6.0917	3.1028	3.1028
1965	06	22.22	22.685	61.071	59.497	0	0	24.756	24.711	5.4099	5.3686	266.61	264.9	2.1014	2.0533	3.0937	3.0937
1965	07	50.837	50.807	52.95	53.573	0	0	26.656	26.704	8.8165	8.8529	225.79	226.52	2.348	2.3527	3.0284	3.0284
1965	08	67.549	67.568	58.91	57.335	0	0	25.483	25.474	8.1263	8.1052	223.05	223.75	3.3123	3.277	2.4835	2.4835
1965	09	39.496	40.01	36.661	37.437	0	0	22.106	22.047	3.9154	3.861	227.61	229.04	2.464	2.4757	2.5669	2.5669
1965	10	24.949	24.992	18.814	18.908	0	0	16.738	16.722	-1.5397	-1.5575	228.14	230.1	2.4454	2.339	2.7631	2.7631
1965	11	33.827	34.559	11.587	11.942	0.090556	0.73611	8.7248	8.6521	-7.2981	-7.3304	231.92	234.28	2.3429	2.7671	2.8137	2.8137
1965	12	23.596	22.444	9.6358	8.5501	9.0318	6.6483	3.8518	3.7001	-11.633	-11.862	241.67	245.65	2.0771	1.9339	3.0572	3.0572
1966	01	33.126	31.558	10.708	10.205	16.722	15.151	2.9397	2.8858	-12.687	-12.786	247.17	249.54	2.3004	2.1314	3.0392	3.0392
1966	02	26.313	27.196	12.166	11.854	28.044	27.723	5.539	5.3444	-10.108	-10.233	255.03	255.64	2.7037	2.7055	2.9859	2.9859
1966	03	39.16	40.184	21.554	20.929	30.022	30.372	9.5181	9.2845	-6.9129	-7.0857	265.31	266.56	4.8485	5.3101	3.2703	3.2703
1966	04	24.698	24.46	34.973	34.942	24.945	23.628	14.361	14.183	-3.3866	-3.505	283.19	287.73	6.5466	6.6969	3.2413	3.2413
1966	05	32.27	32.116	60.803	60.931	3.3571	3.2622	18.938	18.951	1.3018	1.3114	287.69	289.6	5.3493	5.0948	3.0825	3.0825
1966	06	19.057	19.076	53.873	55.748	0	0	24.824	24.819	5.2855	5.3022	255.49	258.64	1.8701	1.8977	3.0716	3.0716
1966	07	44.591	43.647	44.904	44.816	0	0	27.032	27.025	9.0327	9.0335	220.2	220.24	2.176	2.162	2.9922	2.9922
1966	08	71.627	73.208	59.038	60.937	0	0	25.466	25.43	8.3982	8.4093	220.38	218.94	3.1523	3.1266	2.6291	2.6291
1966	09	30.753	31.078	32.256	30.746	0	0	22.666	22.613	4.2602	4.2635	226.99	226.48	2.1721	2.1327	2.5697	2.5697
1966	10	27.959	26.796	20.392	19.776	0	0	16.996	16.544	-1.4414	-1.4807	224.09	225.33	2.2767	2.2557	2.6513	2.6513
1966	11	37.932	37.524	12.622	13.062	0.21178	0.14	8.8463	8.8445	-7.717	-7.6688	230.89	230.26	3.05	2.5053	3.1095	3.1095
1966	12	23.175	23.024	8.3753	8.6119	6.2688	9.3696	8.5033	8.9304	-11.846	-11.762	244.55	241.19	2.0974	1.7662	3.0033	3.0033
1967	01	38.401	41.235	10.567	10.696	15.369	17.909	2.3311	2.4003	-13.486	-13.271	249.91	247.8	2.245	2.4321	3.1103	3.1103
1967	02	24.191	24.619	11.393	12.088	32.092	35.33	5.8094	5.816	-10.426	-10.232	257.04	256.71	2.7669	2.6567	3.0768	3.0768
1967	03	30.479	30.252	20.514	19.757	32.455	36.104	9.8134	9.8013	-7.3253	-7.2863	267.47	266.45	5.0645	5.2881	3.2286	3.2286
1967	04	24.449	24.37	36.858	37.346	19.597	22.605	14.959	14.979	2.8747	-2.8513	284.79	285.26	7.2509	7.4499	3.2149	3.2149
1967	05	23.869	23.031	58.198	57.982	0.93567	1.4739	20.03	19.971	1.4932	1.4186	282.53	285.34	3.1392	3.7052	3.066	3.066
1967	06	22.082	22.452	48.856	51.111	0	0	25.238	25.204	6.6555	5.6633	246.41	247.93	1.9501	1.8625	3.1633	3.1633
1967	07	51.383	51.059	47.792	47.784	0	0	27.164	27.178	9.3317	9.3477	218.1	218.35	2.3437	2.2995	2.9998	2.9998
1967	08	66.45	65.81	55.509	55.574	0	0	25.678	25.656	8.4347	8.3931	219.85	221.27	3.0843	3.1283	2.5655	2.5655
1967	09	32.968	31.489	33.45	32.73	0	0	22.498	22.613	4.3501	4.4222	227.52	226.73	2.2525	2.1395	2.5147	2.5147
1967	10	38.936	36.556	23.409	22.427	0	0	16.345	16.502	-1.2484	-1.2497	224.93	223.11	2.8549	2.7702	2.7239	2.7239
1967	11	41.452	43.81	17.711	12.3	1.4974	0.65889	8.7624	8.7679	-7.1345	-7.0658	236.58	235.62	3.2552	3.0102	2.9237	2.9237
1967	12	22.272	23.679	7.764	8.812	8.5957	12.295	3.318	3.4499	-12.164	-11.994	252.52	249.96	2.1643	2.1157	3.1894	3.1894
1968	01	35.282	35.223	9.9762	9.4878	17.423	20.213	2.4164	2.3378	-13.242	-13.356	258.58	255.36	2.192	2.1447	2.8742	2.8742
1968	02	25.299	25.181	12.76	13.086	33.776	37.107	5.7508	5.7445	-9.9321	-9.9696	264.29	261.09	2.7881	3.004	3.0652	3.0652
1968	03	38.517	39.237	21.158	20.646	34.833	36.273	9.0622	9.0072	-7.1798	-7.1494	274.13	272.54	5.1886	5.51	3.3217	3.3217
1968	04	25.517	25.829	36.726	36.718	27.898	31.597	14.294	14.296	-3.1942	-3.1785	292.14	290.35	8.5525	8.6965	3.3022	3.3022
1968	05	26.831	27.18	65.221	63.881	3.2053	4.5178	19.644	19.57	1.4101	1.3741	296.04	296.23	5.1603	6.2352	3.1183	3.1183
1968	06	22.425	23.012	56.56	57.682	0	0	24.963	24.874	5.6847	5.6492	255.43	257.72	1.8526	1.9926	3.1256	3.1256
1968	07	46.804	46.654	46.307	47.001	0	0	27.053	27.004	9.0616	9.0237	220.62	221.97	2.2409	2.2263	3.0243	3.0243
1968	08	30.128	30.707	62.108	64.987	0	0	25.338	25.261	8.5622	8.5015	220.63	221.25	3.7796	3.5924	2.5353	2.5353
1968	09	30.228	31.308	34.654	34.512	0	0	22.388	22.321	4.3581	4.286	232.99	231.33	2.1231	2.2308	2.4894	2.4894
1968	10	29.816	30.507	20.542	19.918	0	0	17.17	16.984	-1.4104	-1.5489	227.04	226.4	2.5826	2.7079	2.76	2.76
1968	11	38.899	38.022	12.825	12.003	0.67444	0.80089	8.4618	8.432	-7.5857	-7.6409	234.91	235.1	2.8752	2.7852	2.8902	2.8902
1968	12	24.655	24.872	8.826	9.0798	7.8597	8.8122	3.6288	3.6508	-11.848	-11.83	247.94	248.25	2.1509	2.0059	3.0972	3.0972
1969	01	30.35	31.199	10.785	9.8866	17.09	19.879	3.3532	3.3326	-12.793	-12.778	253.63	252.41	2.2816	2.238	3.0007	3.0007
1969	02	26.854	27.44	12.488	12.307	26.995	31.051	5.5732	5.3786	-10.167	-10.273	260.33	258.85	2.5284	2.7383	2.9671	2.9671
1969	03	34.787	34.547	20.572	20.698	30.347	33.266	8.9734	8.9422	-7.2252	-7.2114	269.41	269.64	4.768	4.3994	3.204	3.204
1969	04	28.75	29.034	36.36	36.3	25.079	28.459	14.284	14.26	-3.1926	-3.2124	284.02	283.43	7.2066	7.961	3.2612	3.2612
1969	05	24.018	25.613	59.273	61.423	4.0746	4.0282	19.182	19.183	1.2062	1.2167	288.75	292.27	5.2684	5.6855	2.9968	2.9968
1969	06	27.922	26.748	56.972	57.301	0	0	24.908	24.997	5.7214	5.7384	252.65	254.11	2.1003	1.9838	2.9836	2.9836
1969	07	45.57	45.715	46.117	46.666	0	0	26.996	26.943	8.9028	8.8823	222	222.16	2.218	2.2187	2.994	2.994
1969	08	70.288	70.298	58.567	58.344	0	0	25.241	25.27	8.2248	8.2756	220.14	221.81	3.1247	3.2758	2.5394	2.5394
1969	09	37.627	37.419	36.466	37.378	0	0	22.179	22.148	4.2181	4.1639	227.92	228.48	2.311	2.263	2.6649	2.6649
1969	10	31.518	31.848	20.412	19.644	0.0001111	0	16.454	16.467	-1.535	-1.5095	228.49	226.38	2.8019	2.9177	2.7229	2.7229
1969	11	42.1	41.915	12.778	12.533	0.55944	0.91678	8.03	8.2691	-7.5985	-7.4424	236.21	236.8	2.8276	3.0469	2.9076	2.9076
1969	12	16.703	16.571	7.7645	8.2323	11.503	9.261	3.9362	4.073	-11.469	-11.384	249.37	251.75	2.0599	1.9192	3.1821	3.1821
1970	01	35.397	35.59	10.411	10.122	15.317	11.453	3.2376	3.1457								

1972	07	45.485	44.275	48.22	47.378	0	0	27.343	27.438	9.3759	9.4344	223.79	222.83	2.2196	2.162	3.0317	3.0317
1972	08	63.689	63.835	54.599	54.131	0	0	25.899	25.946	8.6514	8.7297	221.58	219.22	3.0971	3.0347	2.5145	2.5145
1972	09	31.876	31.635	32.349	32.548	0	0	22.876	23.001	4.6254	4.7507	225.7	224.95	2.1427	2.0619	2.6516	2.6516
1972	10	28.919	29.301	20.603	20.76	0	0	17.86	17.845	-0.63955	-0.65877	222.98	222.57	2.474	2.4189	2.7619	2.7619
1972	11	43.883	43.912	12.039	11.507	0.22144	0.0047778	8.6995	8.7378	-7.1979	-7.1628	231.23	229.57	2.86	2.6351	2.8869	2.8869
1972	12	27.686	27.714	9.6202	9.4549	13.193	15.792	3.6215	3.6462	-11.77	-11.746	244.49	241.44	2.1557	2.1471	3.028	3.028
1973	01	42.507	43.272	10.434	11.633	23.428	25.514	2.9962	2.9562	-11.991	-12.04	251.2	247.79	2.3929	2.3301	3.2331	3.2331
1973	02	25.434	25.017	11.437	11.55	43.086	45.517	4.8125	4.8305	-10.597	-10.635	259.79	256.7	2.6947	2.6071	3.0768	3.0768
1973	03	38.866	40.151	20.821	21.678	44.73	48.784	9.371	9.3149	-6.9096	-6.9172	269.99	266.12	5.7065	5.8464	3.253	3.253
1973	04	22.991	23.399	37.141	35.692	34.805	36.963	14.742	14.59	-3.2919	-3.3707	291.82	289.48	8.7388	9.5036	3.1917	3.1917
1973	05	24.795	23.957	63.227	62.546	5.7271	5.9997	19.659	19.642	1.3202	1.3084	297.54	297.95	5.866	5.9733	2.9703	2.9703
1973	06	20.567	19.813	56.979	57.155	0	0	25.308	25.37	5.3672	5.41	258.81	259.23	1.8691	1.9531	2.9652	2.9652
1973	07	52.572	51.811	49.903	49.262	0	0	27.026	27.102	9.2003	9.2076	221.74	221.55	2.4767	2.3478	3.0858	3.0858
1973	08	67.219	66.72	57.485	57.795	0	0	25.705	25.747	8.2384	8.2811	223.39	221.85	3.2363	3.0759	2.6317	2.6317
1973	09	41.539	42.222	36.385	37.558	0	0	22.257	22.221	4.6074	4.5985	228.21	226.83	2.6466	2.643	2.501	2.501
1973	10	35.236	35.769	21.154	20.73	0	0	16.396	16.487	-1.6178	-1.5925	232.19	229.26	3.1528	3.0384	2.6815	2.6815
1973	11	41.91	40.994	13.469	13.076	0.35978	1.9344	9.1455	9.1725	-6.7871	-6.8593	242.9	241.39	2.9829	3.4412	2.8688	2.8688
1973	12	27.504	27.343	9.383	9.4284	11.463	7.9659	3.3184	3.555	-11.994	-11.833	254.98	257.11	2.1507	2.2318	3.0034	3.0034
1974	01	30.894	30.664	9.5556	9.5675	23.106	17.907	3.0341	3.0927	-12.492	-12.453	260.41	262.85	2.3551	2.3037	2.9165	2.9165
1974	02	27.859	27.883	12.894	12.198	33.666	30.251	5.7632	5.719	-9.8285	-9.9207	267.6	268.99	2.7736	2.8382	2.9083	2.9083
1974	03	38.75	40.383	22.611	21.895	36.518	33.258	9.3363	9.1399	-6.9422	-7.0302	277.63	279.09	5.126	5.2952	3.4088	3.4088
1974	04	25.225	25.546	37.664	38.082	31.357	30.369	14.398	14.367	-3.2198	-3.2503	294.14	296.3	8.1861	8.7	3.2383	3.2383
1974	05	24.873	24.233	61.566	62.428	6.4674	4.0671	19.273	19.378	1.041	1.0881	297.62	299.74	6.085	6.0683	3.0427	3.0427
1974	06	26.981	28.115	62.312	61.244	0	0	24.674	24.668	5.3117	5.3426	261.29	259.51	2.1408	2.0921	2.9886	2.9886
1974	07	49.13	49.084	50.497	50.502	0	0	27.15	27.16	9.2425	9.2743	224.54	224.94	3.2327	3.3418	3.0322	3.0322
1974	08	66.719	68.386	56.03	58.11	0	0	25.675	25.61	8.4888	8.4333	222.48	223.23	3.1498	3.1897	2.5748	2.5748
1974	09	36.395	36.985	34.885	35.294	0	0	22.557	22.516	4.3896	4.369	229.04	228.6	2.4227	2.4706	2.5292	2.5292
1974	10	39.68	41.545	22.431	24.617	0	0	16.528	16.487	-1.0322	-1.0159	228.47	228.8	3.151	3.2316	2.7579	2.7579
1974	11	34.595	34.248	12.176	11.412	1.0653	0.59178	8.6842	8.4426	-7.1889	-7.3013	241.96	243.06	2.8732	3.0105	2.9226	2.9226
1974	12	20.224	22.009	8.3204	8.8462	7.3552	5.4346	4.1703	4.029	-12.008	-12.071	253.16	255.73	2.1618	2.066	3.0754	3.0754
1975	01	33.248	33.518	10.217	10.133	13.566	12.932	3.4089	3.4374	-12.568	-12.552	258.46	259.54	2.2629	2.304	2.9541	2.9541
1975	02	27.32	27.135	12.721	13.352	26.574	26.56	5.6747	5.6905	-10.009	-9.9477	264.62	266.32	2.837	2.6181	3.0909	3.0909
1975	03	32.95	32.873	21.883	20.9	28.494	30.296	9.9889	9.8073	-6.6894	-6.7464	275.14	274.95	5.1561	4.8868	3.2635	3.2635
1975	04	26.065	24.007	39.564	39.005	18.531	21.233	15.136	15.07	-2.8775	-2.9703	291.07	290.31	6.3674	6.5477	3.2031	3.2031
1975	05	30.059	29.03	60.413	60.527	1.3236	1.6623	19.163	19.26	1.2935	1.3154	286.78	288	4.0958	4.1947	2.9214	2.9214
1975	06	25.627	25.347	54.883	55.234	0.0001111	0	24.956	25.027	5.5622	5.6065	253.78	253.5	2.0334	1.9868	2.966	2.966
1975	07	51.954	52.372	50.495	50.749	0	0	26.795	26.839	8.872	8.9002	223.79	223.69	2.4096	2.4524	2.9855	2.9855
1975	08	62.035	61.727	55.186	55.784	0	0	25.631	25.668	8.0056	8.0034	224.03	223.14	2.8951	2.8341	2.5259	2.5259
1975	09	38.39	36.8	36.648	34.489	0	0	22.128	22.311	4.1194	4.1911	226.67	225.16	2.2804	2.3673	2.5296	2.5296
1975	10	37.76	37.663	20.625	19.633	0	0	16.53	16.631	-1.0792	-1.0365	226.81	225.55	3.4887	3.3768	2.7076	2.7076
1975	11	37.395	37.475	12.354	12.442	0.26233	0.87378	9.0624	9.1075	-6.7229	-6.6732	242.27	240.43	3.1226	3.0135	2.9154	2.9154
1975	12	28.026	27.918	8.7797	9.0533	7.3959	8.3507	3.7734	3.8412	-11.46	-11.423	254.1	253.17	2.3585	2.2576	3.0154	3.0154
1976	01	30.402	29.31	10.468	10.208	18.781	18.932	3.4422	3.5457	-12.285	-12.224	261.1	259.43	2.7094	2.3954	3.2099	3.2099
1976	02	23.456	24.592	11.445	11.291	25.995	28.308	5.5066	5.6317	-10.39	-10.191	269.76	266.08	2.8197	2.7376	2.9328	2.9328
1976	03	40.949	40.952	20.644	21.846	28.912	31.156	9.1526	9.2091	-6.743	-6.7259	276.76	274.68	6.0376	5.8487	3.1262	3.1262
1976	04	27.923	28.679	40.054	39.515	24.148	24.948	14.929	14.97	-2.7624	-2.6959	294.96	293.98	6.6845	10.173	3.1345	3.1345
1976	05	33.302	33.105	60.626	60.279	2.4021	2.359	19.125	19.185	1.2557	1.3418	294.32	295.14	6.5139	7.1672	3.0358	3.0358
1976	06	23.423	22.956	58.707	58.712	0	0	24.988	24.953	5.6122	5.5929	262.92	263.22	2.0302	1.9785	3.0618	3.0618
1976	07	48.752	49.515	51.367	51.181	0	0	27.201	27.137	9.1118	9.0976	225.92	225.35	2.3403	2.3249	3.0146	3.0146
1976	08	74.082	73.973	59.429	60.797	0	0	25.514	25.527	8.49	8.4966	222.42	223.33	3.5453	3.474	2.5673	2.5673
1976	09	32.134	32.341	35.491	34.843	0	0	22.871	22.853	4.5145	4.5162	232.53	231.16	2.2032	2.2138	2.5879	2.5879
1976	10	40.966	41.235	21.784	21.683	0.0002222	0	16.76	16.847	-1.2724	-1.1871	227.58	227.26	3.3765	3.454	2.7032	2.7032
1976	11	40.187	38.636	12.676	13.193	1.1483	0.91256	9.0907	9.1618	-6.9539	-6.905	243.11	243.46	3.3223	3.9305	2.9317	2.9317
1976	12	28.029	26.718	9.6462	8.606	8.9351	9.8636	3.3818	3.4406	-11.514	-11.474	257.6	254.8	2.2352	2.0847	2.9442	2.9442
1977	01	31.177	31.041	10.016	9.9162	19.937	22.958	2.2622	2.2692	-13.446	-13.389	263.26	259.33	2.3031	2.2623	3.0293	3.0293
1977	02	23.368	23.25	11.885	12.065	31.527	34.05	6.1819	6.3413	-9.4649	-9.3263	269.42	265.79	2.9818	2.7451	3.0497	3.0497
1977	03	42.792	43.048	23.336	22.627	30.376	34.585	8.7967	8.9328	-7.5411	-7.0761	279.81	275.04	5.0936	5.2945	3.1722	3.1722
1977	04	33.4	32.674	40.688	39.422	27.075	27.945	14.317	14.28	-3.0009	-3.046	297.95	296.66	8.0683	8.8514	3.2079	3.2079
1977	05	30.995	30.76	67.474	66.705	4.03	4.1316	19.381	19.54	1.6084	1.7173	304.67	302.87	5.2375	5.4919	2.9627	2.9627
1977	06	27.578	26.312	65.296	63.381	0	0	24.801	24.9	5.9005	5.9412	266.77	265.2	2.183	2.0845	3.013	3.013
1977	07	46.331	47.464	50.206	51.483	0	0	27.5	27.507	9.5133	9.5283	227.11	226.94	2.2906	2.3236	3.0478	3.0478
1977	08	67.451	68.215	56.354	58.419	0	0	25.809	25.772	8.4978	8.4861	223.39	224.34	3.1812	3.3553	2.6915	2.6915
1977	09	31.762	31.822	32.707	32.667	0	0	22.766	22.787	4.4637	4.4876	229.35	226.86	2.2804	2.1663	2.5427	2.5427
1977	10	37.029	35.711	22.699	23.363	0	0	17.011	17.034	-1.0349	-1.0101	227.06	225.51	2.9594	2.6498	2.7903	2.7903
1977	11	35.802	35.273	12.683	12.39	0.37533	0.82267	8.8323	8.8984	-7.5231	-7.4099	238.48	235.48	2.6879	2.677	2.9333	

1980	05	29.53	29.523	62.779	63.899	3.1801	2.9362	19.73	19.73	1.6739	1.6211	293.71	295.78	5.5862	5.3749	2.9558	2.9558
1980	06	23.345	23.809	57.874	59.206	0	0	25.344	25.239	5.846	5.7428	258.01	257.72	1.9851	1.9742	3.0834	3.0834
1980	07	47.267	46.92	48.25	47.471	0	0	27.36	27.383	9.2599	9.2898	222.67	221.33	2.2492	2.1915	2.9499	2.9499
1980	08	62.777	61.058	54.678	53.49	0	0	25.872	25.942	8.6572	8.6881	220.15	220.54	2.9016	2.8156	2.636	2.636
1980	09	28.919	30.297	31.899	31.679	0	0	23.564	23.525	4.8853	4.8862	224.93	223.16	2.0195	2.12	2.5692	2.5692
1980	10	44.165	42.731	23.286	22.07	0	0	17.076	17.006	-0.99904	-1.0198	222.54	220.44	3.3818	3.4425	2.7082	2.7082
1980	11	35.625	34.768	12.376	11.992	0.45244	0.46044	9.5881	9.7411	-6.8054	-6.7151	238.49	238.47	2.5956	2.9076	2.8357	2.8357
1980	12	26.271	25.552	9.1025	8.4108	8.9878	5.201	4.3134	4.3468	-11.135	-11.111	248.14	251.46	2.1285	2.1584	3.1806	3.1806
1981	01	36.024	35.922	10.584	10.821	20.798	15.213	3.2596	3.1467	-12.285	-12.39	253.6	256.93	2.4619	2.392	3.1211	3.1211
1981	02	24.256	23.03	11.69	11.731	32.794	28.877	5.7471	5.7329	-9.6515	-9.8368	262.39	264.81	2.7061	2.7627	2.9735	2.9735
1981	03	36.023	35.767	22.817	22.678	35.022	29.073	9.961	10.001	-6.6651	-6.6378	271.42	274.31	5.8542	5.7773	3.1454	3.1454
1981	04	25.033	25.192	40.373	40.222	20.837	17.182	14.997	14.972	-2.7801	-2.8441	291.83	293.16	7.6674	6.7006	3.226	3.226
1981	05	25.527	25.714	61.902	61.429	1.3193	1.199	19.9	19.961	1.4703	1.5131	287.47	286.79	4.0502	3.6808	2.9918	2.9918
1981	06	24.503	25.688	52.699	52.958	0	0	25.245	25.128	5.9583	5.8747	248.62	248.4	1.8377	1.9091	2.9293	2.9293
1981	07	53.577	53.415	49.217	50.219	0	0	27.23	27.166	9.5372	9.4898	219.48	220.34	2.4527	2.4557	2.9615	2.9615
1981	08	68.482	68.523	57.478	58.185	0	0	25.627	25.597	8.6692	8.6322	222.79	222.93	3.2298	3.2742	2.6618	2.6618
1981	09	30.948	31.166	34.119	33.806	0	0	23.227	23.181	4.5162	4.4768	228.81	227.89	2.073	2.1054	2.6233	2.6233
1981	10	30.139	31.006	19.873	20.972	0	0	17.483	17.372	-1.0903	-1.1293	224.25	224.93	2.6488	2.7293	2.7053	2.7053
1981	11	45.047	44.113	12.397	13.04	0.23156	0.042889	9.0409	9.0035	-6.9922	-7.0086	233.26	231.23	2.8623	2.7935	2.8568	2.8568
1981	12	24.463	23.317	9.0768	9.1067	13.779	12.237	4.4906	4.5875	-10.983	-10.901	246.86	245.93	2.3028	2.1161	3.043	3.043
1982	01	36.219	34.692	10.039	9.9863	20.866	21.101	3.0175	3.0115	-12.62	-12.663	254.16	251.28	2.2389	2.3514	3.113	3.113
1982	02	26.536	26.431	12.588	11.861	36.969	33.639	6.0917	6.077	-9.3011	-9.3295	260.78	259.29	2.9535	2.9496	2.9027	2.9027
1982	03	36.473	35.327	21.938	21.051	36.639	34.102	9.8526	9.9271	-6.7844	-6.7623	272.86	271.13	6.1544	5.781	3.268	3.268
1982	04	25.003	24.346	36.529	36.826	25.816	23.052	14.545	14.781	-3.2423	-3.1259	292.28	290.28	8.7538	8.5315	3.3464	3.3464
1982	05	29.26	29.875	62.761	60.66	4.0497	4.209	19.709	19.652	1.6193	1.5622	292.52	287.42	5.9147	5.5757	2.9299	2.9299
1982	06	21.137	20.375	56.074	53.959	0	0	25.584	25.578	5.8839	5.8856	257.02	254.84	1.8662	1.7896	2.9386	2.9386
1982	07	45.524	46.151	46.531	45.753	0	0	27.082	27.111	9.0192	9.0755	221.07	220.87	2.21	2.2598	3.0852	3.0852
1982	08	67.986	66.768	56.394	56.444	0	0	25.589	25.641	8.4016	8.4538	220.12	221.16	3.1317	3.1134	2.6214	2.6214
1982	09	37.149	37.024	35.205	35.921	0	0	22.592	22.633	4.4187	4.4446	226.26	226.4	2.4819	2.2775	2.5178	2.5178
1982	10	40.816	40.763	23.25	22.799	0.0003333	0	16.849	16.821	-1.1258	-1.1458	227.08	226.58	3.4412	3.3508	2.7435	2.7435
1982	11	41.481	41.345	12.144	11.945	0.50678	0.15833	8.0405	8.0282	-7.6886	-7.6992	242.15	240.98	3.221	3.0614	2.9225	2.9225
1982	12	28.148	29.082	8.2777	9.6771	10.114	10.534	3.5696	3.7145	-11.545	-11.421	255.63	254.44	2.2738	2.3793	3.1787	3.1787
1983	01	38.183	38.019	10.109	10.808	22.602	23.104	2.8496	2.8586	-11.86	-11.86	260.47	260.75	2.5679	2.4881	3.2419	3.2419
1983	02	24.327	24.54	11.267	12.119	39.498	38.632	5.7223	5.7282	-9.6801	-9.6605	268.86	268.29	3.1977	3.0111	3.0876	3.0876
1983	03	41.155	41.593	22.447	22.281	38.281	38.927	9.2856	9.3276	-6.5802	-6.5372	281.33	278.56	6.3968	6.4081	3.1608	3.1608
1983	04	30.785	31.62	39.386	38.451	29.606	30.61	14.07	14.102	-2.9974	-2.9398	301.73	300.42	9.9725	11.554	3.404	3.404
1983	05	29.538	29.735	64.761	64.093	3.9606	3.8993	18.953	18.977	1.2622	1.2862	308.05	306.47	7.3281	7.7904	3.0666	3.0666
1983	06	30.304	31.993	66.837	67.446	0	0	24.466	24.397	5.5931	5.5883	269.18	268.65	2.3403	2.3119	2.9418	2.9418
1983	07	46.647	46.55	53.055	53.086	0	0	27.032	27.014	8.9357	8.9454	230.81	231.13	2.2676	2.2913	3.1005	3.1005
1983	08	63.395	62.654	55.79	55.214	0	0	25.578	25.619	8.0903	8.1006	225.36	223.36	3.0414	3.0835	2.6309	2.6309
1983	09	35.701	35.258	35.027	34.937	0	0	22.343	22.433	4.0494	4.129	227.78	227.08	2.2531	2.2055	2.5178	2.5178
1983	10	37.09	37.262	22.487	20.965	0	0	17.14	17.141	-1.0417	-1.0064	226.62	227.63	2.9983	2.1959	2.727	2.727
1983	11	33.008	36.588	12.738	11.953	0.58333	0.57956	8.4219	8.3439	-7.7123	-7.7565	238.54	239.78	2.6422	2.7451	3.0228	3.0228
1983	12	25.244	22.502	8.2856	8.5669	7.3659	8.108	3.6863	3.6178	-11.997	-12.054	249.05	251.53	2.0581	2.049	2.9887	2.9887
1984	01	30.243	30.478	10.1	10.349	16.259	17.52	2.5033	2.6526	-12.884	-12.732	253.63	255.65	2.0663	2.2222	3.2414	3.2414
1984	02	23.627	23.912	12.141	12.36	29.16	27.796	5.9038	5.9678	9.6233	9.5356	258.7	262.05	2.9304	2.6636	2.9692	2.9692
1984	03	28.637	30.288	19.788	21.424	27.19	27.896	9.7696	9.7647	-6.9655	-6.8478	269.27	270.56	4.4182	4.0828	3.2269	3.2269
1984	04	29.298	29.409	38.926	39.008	20.568	21.603	14.908	15.072	-2.9041	-2.8079	281.14	281.82	6.8125	7.3162	3.2454	3.2454
1984	05	30.473	31.807	59.196	60.305	2.7812	2.7348	19.8	19.643	1.6394	1.5614	281.3	283.15	4.5879	4.9549	3.0439	3.0439
1984	06	26.386	27.339	53.541	54.63	0	0	24.936	24.831	5.7264	5.654	250.97	252.59	2.0151	2.0344	3.0427	3.0427
1984	07	47.056	48.481	48.014	49.457	0	0	27.278	27.213	9.1579	9.1206	221.62	223.58	2.2003	2.2866	3.0963	3.0963
1984	08	69.351	69.458	56.678	58.259	0	0	25.796	25.755	8.7651	8.7212	221.37	221.89	3.2825	3.2975	2.6056	2.6056
1984	09	31.88	31.994	33.913	34.165	0	0	23.112	23.071	4.4449	4.4153	228.52	228.68	2.1978	2.0714	2.5291	2.5291
1984	10	26.755	26.959	19.519	19.311	0	0	18.063	18.008	-0.96841	-0.97265	225.07	224.04	2.3467	2.4831	2.7456	2.7456
1984	11	48.426	48.655	12.437	13.69	0.285	0.19267	9.0637	9.0209	-6.9049	-6.912	230.94	231.29	3.2424	3.1901	2.9855	2.9855
1984	12	20.724	20.109	9.1515	8.4867	13.896	12.319	3.7079	3.7265	-11.943	-11.945	247.26	247.29	1.8946	1.9509	3.0012	3.0012
1985	01	39.91	38.706	10.323	10.877	22.189	18.927	2.6991	2.7712	-12.741	-12.684	250.69	252.5	2.2142	2.2917	3.1376	3.1376
1985	02	23.229	22.892	11.494	11.673	40.226	35.154	5.8518	5.7772	-10.051	-10.178	257.98	259.29	2.8805	2.6216	3.098	3.098
1985	03	32.52	32.693	21.646	22.366	39.405	36.12	9.4627	9.5605	-6.7237	-6.6735	268.72	268.09	5.2116	5.0835	3.1382	3.1382
1985	04	21.88	21.427	37.742	36.874	26.284	22.735	15.063	14.991	-2.9698	-3.0635	287.19	286.55	6.6672	6.6385	3.3392	3.3392
1985	05	24.78	24.661	61.088	59.855	2.1714	2.0187	19.746	19.777	1.2421	1.2773	288.46	284.77	3.8579	3.6776	2.9219	2.9219
1985	06	28.878	27.938	57.642	54.629	0	0	25.306	25.341	5.826	5.8252	249.53	247.51	2.0101	1.9692	2.9966	2.9966
1985	07	55.438	55.337	51.217	51.096	0	0	26.977	27.014	9.2028	9.218	219.85	219.96	2.4194	2.4507	3.0646	3.0646
1985	08	63.772	63.54	56.735	55.836	0	0	25.877	25.915	8.4996	8.5491	223.06	222.81	2.9462	2.954	2.4598	2.4598
1985	09	33.797	35.272	32.88	35.16	0	0	22.911	22								

1988	03	31.723	33.924	21.949	21.606	27.67	24.957	10.105	10.022	-6.6838	-6.7091	263.53	265.38	4.7669	4.7512	3.2184	3.2184
1988	04	28.739	29.484	35.833	36.56	18.079	17.294	14.883	14.895	-3.1588	-3.127	278.29	280.62	7.7029	6.7409	3.2162	3.2162
1988	05	25.653	25.683	55.507	54.858	1.1869	2.0603	20.045	19.983	1.3661	1.328	279.86	280.36	3.7368	4.3941	2.9685	2.9685
1988	06	24.198	25.369	50.876	52.034	0	0	25.494	25.437	5.8993	5.8889	247.04	248.8	1.932	2.027	2.9999	2.9999
1988	07	44.852	44.583	44.364	45.606	0	0	27.568	27.547	9.4506	9.4173	219.1	220.55	2.195	2.1698	3.045	3.045
1988	08	65.322	66.491	56.589	55.799	0	0	26.107	26.031	8.8859	8.796	218.42	218.72	2.8117	3.0131	2.5757	2.5757
1988	09	38.037	38.337	36.006	37.107	0	0	23.215	23.177	5.062	5.0094	232.66	225.13	2.3899	2.3617	2.6346	2.6346
1988	10	29.461	32.701	19.655	20.142	0	0	17.747	17.689	-0.82831	-0.86919	232.92	224.45	2.6116	2.7886	2.7658	2.7658
1988	11	42.081	38.908	12.942	12.982	0.11078	1.3251	9.0159	9.2232	-6.7414	-6.754	232.3	234.27	3.4375	2.9533	2.9257	2.9257
1988	12	26.693	26.695	8.3349	8.7993	5.5076	8.6393	4.1175	3.9792	-11.221	-11.308	250.34	247.85	2.0783	2.1964	3.0027	3.0027
1989	01	35.145	36.544	10.53	10.77	17.219	18.998	3.2134	3.2939	-12.642	-12.424	255.57	254.1	2.4343	2.4587	3.2661	3.2661
1989	02	31.017	31.545	12.526	12.699	30.247	33.392	5.8011	5.7908	-9.745	-9.7733	263.72	262.77	3.0013	3.1176	3.0413	3.0413
1989	03	42.355	40.548	21.835	22.327	34.478	36.041	9.5755	9.5844	-6.4724	-6.5756	276.38	275.49	6.7107	6.234	3.2765	3.2765
1989	04	24.248	23.847	38.183	37.188	25.168	28.272	14.925	14.985	-3.1781	-3.1099	299.3	294.68	9.2541	8.9814	3.322	3.322
1989	05	30.841	29.567	63.511	63.028	3.3564	4.8666	19.949	19.93	1.6666	1.636	296.45	296.27	5.9059	5.9348	3.0211	3.0211
1989	06	23.371	22.214	59.245	58.256	0	0	25.45	25.543	6.1173	6.1393	260.76	260.79	1.9884	2.0635	3.1058	3.1058
1989	07	54.055	52.931	53.65	51.642	0	0	27.063	27.181	9.6063	9.6695	223.66	223.89	2.4041	2.4133	3.0018	3.0018
1989	08	72.833	72.055	61.008	60.563	0	0	25.749	25.788	8.7236	8.7253	224.55	224.03	3.4526	3.6761	2.5863	2.5863
1989	09	37.512	36.537	37.646	38.055	0	0	22.86	22.868	4.7728	4.7197	230.44	230.74	2.3449	2.281	2.4586	2.4586
1989	10	33.942	34.301	19.938	21.254	0.0028889	0	17.747	17.678	-0.53312	-0.59463	229.45	226.69	3.1034	2.9198	2.7446	2.7446
1989	11	37.279	37.098	11.775	12.227	0.97289	1.2882	9.4718	9.6285	-7.225	-7.1331	239.63	236.35	2.9028	2.9027	2.9799	2.9799
1989	12	23.09	23.722	8.2239	8.2171	9.9654	8.2974	3.8044	3.8955	-11.616	-11.504	251.37	249.83	2.03	2.1536	2.9849	2.9849
1990	01	34.987	34.737	11.195	10.566	18.974	16.579	2.6251	2.7125	-12.775	-12.707	255.83	255.64	2.1902	2.3273	3.0821	3.0821
1990	02	27.458	27.403	12.564	12.266	33.948	30.227	5.754	5.6619	-9.5665	-9.6859	261.97	263.05	3.0955	2.8068	2.9467	2.9467
1990	03	28.845	30.392	20.148	20.433	33.05	32.758	9.8371	9.7554	-6.5967	-6.6106	274.68	274.07	5.5586	5.1924	3.2191	3.2191
1990	04	27.745	29.828	38.536	36.668	18.551	21.439	14.533	14.376	-2.9152	-2.967	292.29	291.2	7.5054	7.5739	3.2648	3.2648
1990	05	26.528	25.521	62.432	61.846	1.9859	2.5119	20.114	20.155	1.5321	1.556	289.53	292.89	4.1746	4.9878	3.0194	3.0194
1990	06	20.815	21.381	51.375	53.429	0	0	25.72	25.658	6.0473	6.0221	251.19	254.38	1.8112	1.9776	2.8696	2.8696
1990	07	43.329	43.167	43.8	44.401	0	0	27.699	27.69	9.5679	9.5304	220.17	221.06	2.1214	2.1091	3.0446	3.0446
1990	08	60.318	62.09	52.984	53.61	0	0	26.037	25.935	8.6215	8.5429	218.8	219.68	2.7366	2.8722	2.5695	2.5695
1990	09	33.671	34.968	32.867	33.677	0	0	23.209	23.169	4.6059	4.6614	222.29	223.18	2.0811	2.1976	2.5838	2.5838
1990	10	33.65	30.825	19.396	19.484	0	0.0007778	17.485	17.49	-0.94908	-0.99037	222.41	223.27	2.8096	2.6078	2.7848	2.7848
1990	11	40.171	40.955	13.642	12.108	1.5212	0.91256	9.4636	9.5434	-6.9055	-6.8831	232.2	231.92	2.9842	2.9456	2.8304	2.8304
1990	12	24.816	25.565	8.4301	8.9524	9.3224	10.568	4.1144	4.0524	-11.119	-11.133	246.23	245.86	2.1395	2.1925	3.1469	3.1469
1991	01	38.189	38.716	10.838	10.254	18.948	19.417	3.7202	3.6071	-12.026	-12.049	252.36	252.73	2.4878	2.4003	3.1286	3.1286
1991	02	23.235	22.214	11.384	11.991	33.765	36.013	6.1964	6.2403	-9.3007	-9.35	260.84	261.17	2.5898	2.5261	3.189	3.189
1991	03	29.979	30.791	20.721	21.176	34.348	37.304	10.515	10.478	-6.3192	-6.3207	269.69	269.08	5.8624	5.8561	3.2028	3.2028
1991	04	29.514	31.169	39.332	39.963	22.444	22.54	15.178	15.116	-2.7023	-2.6576	286.35	287.32	9.4413	9.6345	3.1722	3.1722
1991	05	24.718	25.347	58.776	60.005	2.4618	2.1866	20.567	20.505	2.0317	1.998	284.9	287.84	4.8548	5.3905	2.9574	2.9574
1991	06	20.24	20.049	50.155	50.445	0	0	25.879	25.863	6.2347	6.2218	248.84	249.75	1.7647	1.8291	3.074	3.074
1991	07	46.994	46.919	45.35	45.655	0	0	27.57	27.516	9.6437	9.5611	217.78	217.99	2.2018	2.2051	3.1079	3.1079
1991	08	67.159	67.789	55.952	55.558	0	0	26.156	26.169	9.2982	9.301	217.67	219.77	3.0432	3.4089	2.5681	2.5681
1991	09	35.051	34.773	34.062	35.483	0	0	22.874	23.029	4.7515	4.8868	225.34	225.97	2.2259	2.2223	2.6468	2.6468
1991	10	40.739	40.569	23.728	23.466	0	0	17.138	17.183	-1.0439	-1.0147	224.37	223.83	3.1397	2.9942	2.7338	2.7338
1991	11	37.002	38.351	12.143	11.777	0.68322	1.2849	9.4618	9.3494	-6.4663	-6.5552	238.52	238.83	2.9928	3.0658	2.8607	2.8607
1991	12	23.966	22.969	9.0496	8.4969	7.2582	9.6864	4.6014	4.4333	-10.933	-11.113	252.17	250.87	2.2733	2.3054	3.0169	3.0169
1992	01	32.581	32.723	10.126	10.756	15.675	18.245	3.6447	3.5583	-12.583	-12.641	258.28	255.87	2.3183	2.3028	3.1368	3.1368
1992	02	24.573	24.587	11.945	12.765	27.067	30.29	5.7874	5.8122	-10.046	-9.8981	265.05	262.38	2.784	2.6599	3.0644	3.0644
1992	03	35.268	35.792	20.506	21.762	27.903	30.87	9.5537	9.514	-6.4863	-6.5125	274.8	271.45	5.3014	4.9938	3.1883	3.1883
1992	04	29.803	29.87	38.44	37.648	21.576	22.819	14.458	14.388	-2.8868	-2.9157	292.54	289.04	8.112	8.3569	3.2896	3.2896
1992	05	25.658	25.809	60.806	60.362	2.646	2.5197	19.596	19.512	1.4288	1.3812	292.15	291.64	5.2187	5.7868	2.9779	2.9779
1992	06	24.819	24.438	56.015	55.304	0	0	25.02	25.097	5.4685	5.4999	254.23	254.95	2.0213	2.1995	2.9715	2.9715
1992	07	47.883	47.214	47.653	47.696	0	0	27.023	27.086	9.0593	9.0886	222	221.76	2.2577	2.2218	3.044	3.044
1992	08	68.321	67.938	58.296	57.459	0	0	25.503	25.503	8.2868	8.2698	221.29	221.17	3.1072	3.0048	2.5238	2.5238
1992	09	34.014	35.102	33.026	34.446	0	0	22.33	22.235	4.1161	4.0575	226.81	226.95	2.3373	2.2624	2.5268	2.5268
1992	10	36.82	35.929	22.483	20.791	0	0	17.002	17.127	-1.2878	-1.2297	226.14	226.13	3.0778	3.2227	2.7344	2.7344
1992	11	38.856	38.698	12.722	12.53	0.61456	1.0819	8.5107	8.4922	-7.3699	-7.3697	237.37	237.4	2.7077	2.6132	2.8988	2.8988
1992	12	22.588	22.721	8.2328	9.3821	9.842	12.118	4.1021	4.0245	-11.627	-11.71	249.5	247.86	2.2247	2.2723	3.1439	3.1439
1993	01	40.949	39.226	11.178	10.656	17.439	17.794	2.4434	2.4333	-13.008	-13.064	255.55	254.55	2.3766	2.2985	3.2442	3.2442
1993	02	23.835	23.82	12.062	11.805	35.83	35.026	5.513	5.6456	-10.304	-10.107	263.03	262.26	2.6742	2.5972	3.0091	3.0091
1993	03	43.848	42.862	21.533	21.878	37.972	36.693	9.3488	9.4576	-6.7814	-6.7191	271.61	271.02	5.641	5.6278	3.2356	3.2356
1993	04	23.099	22.863	36.47	37.504	33.894	29.447	14.859	14.92	-3.0744	-3.0126	291.71	292.75	9.2639	8.6448	3.2156	3.2156
1993	05	28.594	28.813	61.859	61.59	5.8099	5.1412	19.632	19.674	1.3797	1.4041	295.79	293.49	7.9358	7.05	3.0752	3.0752
1993	06	16.619	16.711	55.235	53.385	0	0	25.516	25.427	5.5977	5.5172	260.4	258.45	1.8925	1.8434	2.9031	2.9031
1993	07	46.487	46.633	46.515	46.527	0	0	27.221	27.199	9.2117	9.1863	220.71	2				

1996	01	30.326	31.053	9.9244	10.175	12.409	14.167	3.5252	3.5381	-11.998	-11.959	247.79	247.44	2.2999	2.3696	3.2717	3.2717
1996	02	28.119	28.453	12.727	12.571	22.017	23.285	5.7643	5.7806	-9.7725	-9.7846	255.72	256.02	2.7152	2.8023	2.9985	2.9985
1996	03	29.767	30.667	19.815	20.613	25.279	25.468	10.017	9.9736	-6.4135	-6.4209	266.51	267.12	4.7297	4.7504	3.1685	3.1685
1996	04	29.409	28.642	38.335	37.971	17.209	16.178	14.629	14.666	-2.9839	-3.0206	280.05	281.79	6.4543	5.9162	3.4021	3.4021
1996	05	27.547	27.614	58.113	58.253	2.2578	2.0782	19.653	19.673	1.6514	1.6521	277.66	280.01	4.2615	4.8678	2.9592	2.9592
1996	06	21.362	20.92	47.444	48.873	0	0	25.581	25.653	6.1397	6.135	245.12	246.27	1.8904	1.7982	2.9933	2.9933
1996	07	52.731	51.382	48.347	48.373	0	0	27.428	27.479	9.5389	9.6063	217.81	217.05	2.3959	2.3124	3.0821	3.0821
1996	08	71.764	72.257	58.782	58.295	0	0	25.787	25.79	8.7015	8.7454	221.85	219.98	3.4683	3.3976	2.6575	2.6575
1996	09	37.555	38.202	38.327	38.016	0	0	23.194	23.12	5.0851	5.049	229.8	237.02	2.3702	2.3421	2.481	2.481
1996	10	39.445	40.77	24.891	24.414	0	0	17.411	17.312	-0.85479	-0.88453	227.35	227.46	3.1954	3.1269	2.6883	2.6883
1996	11	39.766	41.303	13.155	13.41	0.66478	1.4294	9.3209	9.1517	-6.9484	-7.0562	238.88	240.63	3.2322	3.3854	2.9009	2.9009
1996	12	22.383	21.778	8.5241	8.2185	5.9031	6.5919	4.7957	4.8285	-11.114	-11.131	254.64	256.99	2.1511	2.1234	3.0585	3.0585
1997	01	38.093	38.662	11.58	10.6	14.537	15.256	3.7487	3.6963	-11.29	-11.441	259.77	261.42	2.5371	2.6595	3.0713	3.0713
1997	02	27.279	27.071	12.856	12.608	27.524	28.553	6.4513	6.3433	-9.1961	-9.3851	268.64	271.39	3.0364	2.9212	2.995	2.995
1997	03	42.117	42.411	22.764	22.621	29.57	31.397	9.8921	9.8329	-6.5755	-6.6481	279.15	281.16	5.8587	5.9822	3.2002	3.2002
1997	04	27.659	28.118	40.333	40.32	24.855	28.023	15.006	14.897	-2.8135	-2.886	297.34	298.86	8.8907	9.3585	3.2495	3.2495
1997	05	23.809	26.075	62.909	64.355	4.0374	4.068	19.98	19.85	1.5306	1.4889	295.36	299.82	5.4824	6.4884	2.9519	2.9519
1997	06	23.039	24.111	54.987	58.18	0	0	25.575	25.528	6.0681	6.052	254.22	259.06	1.9864	2.0958	3.0321	3.0321
1997	07	43.735	43.577	44.787	46.708	0	0	27.747	27.713	9.7435	9.7205	222	223.73	2.1773	2.1881	3.0601	3.0601
1997	08	70.257	70.21	57.525	59.525	0	0	26.071	26.067	9.2582	9.2434	220.62	220.17	3.3435	3.2528	2.6377	2.6377
1997	09	31.842	31.979	35.509	33.101	0	0	23.137	23.157	4.9439	4.9446	227.75	225.63	2.0315	2.0994	2.4554	2.4554
1997	10	21.945	21.934	17.396	17.296	0	0	18.648	18.681	-0.32633	-0.30233	222.55	222.69	2.1897	2.2798	2.6975	2.6975
1997	11	26.376	26.349	11.963	11.095	0.536	0.19278	10.186	10.249	-7.0118	-6.9416	224.94	225.75	2.3149	2.0373	2.8205	2.8205
1997	12	27.037	28.118	9.3836	9.8961	2.8783	6.5171	4.7939	4.8127	-10.739	-10.731	233.49	231.63	2.0642	2.166	3.1268	3.1268
1998	01	35.771	35.106	10.971	10.591	13.638	14.851	3.5687	3.8255	-11.804	-11.629	240.13	239.8	2.3034	2.2183	3.1809	3.1809
1998	02	22.299	21.911	11.106	11.604	25.614	28.262	7.1491	7.3706	-8.8258	-8.6907	248.77	247.47	2.7633	2.6074	3.0855	3.0855
1998	03	37.248	37.426	21.785	21.476	23.538	27.066	10.756	10.809	-5.9342	-5.9383	259.56	257.68	5.0224	5.3914	3.2486	3.2486
1998	04	29.831	29.004	37.408	36.745	14.993	17.409	14.954	14.985	-2.7597	-2.7864	278.88	277.43	6.2532	6.8961	3.2975	3.2975
1998	05	28.995	27.748	57.098	56.52	2.2492	2.0552	20.234	20.263	1.7059	1.717	276.9	277.53	4.3097	4.4437	3.1071	3.1071
1998	06	23.031	22.969	51.207	50.37	0	0	25.883	25.888	6.2829	6.2832	246.68	246.51	1.9274	1.8789	2.9261	2.9261
1998	07	43.521	43.2	43	43.387	0	0	28.007	28.041	9.912	9.945	217.13	217.42	2.1708	2.089	3.0325	3.0325
1998	08	70.624	71.766	58.164	58.339	0	0	26.186	26.198	9.2526	9.2565	216.83	217.06	3.2481	3.2081	2.6148	2.6148
1998	09	32.362	32.616	33.693	34.789	0	0	23.332	23.301	4.981	4.9137	224.6	225.67	2.2026	2.1659	2.5697	2.5697
1998	10	25.877	24.348	18.772	18.592	0	0	18.355	18.224	-0.60186	-0.68223	221.75	222.58	2.4303	2.3743	2.6939	2.6939
1998	11	38.762	38.752	11.759	11.901	0.21544	0.078556	10.075	10.107	-6.3933	-6.447	226.76	226.03	2.7931	2.8127	2.8447	2.8447
1998	12	33.309	33.558	9.6698	10.637	6.8306	8.5917	4.5204	4.6006	-11.17	-11.09	240.8	239.61	2.2948	2.3027	3.1258	3.1258
1999	01	37.412	37.454	10.198	10.74	22.219	20.948	3.3804	3.3642	-12.03	-12.049	248.78	248.47	2.3265	2.3455	3.1869	3.1869
1999	02	24.259	24.66	11.423	11.898	39.424	36.774	6.0379	5.9847	-9.473	-9.5265	256.25	256.03	2.8562	2.5352	3.0933	3.0933
1999	03	43.593	43.232	22.05	21.38	38.479	38.969	9.5803	9.6665	-6.5342	-6.5778	267.36	265.37	5.9571	6.2958	3.1131	3.1131
1999	04	29.804	30.629	37.637	38.567	30.428	30.808	14.894	14.806	-2.4983	-2.4981	291.01	289.34	10.289	9.4428	3.2144	3.2144
1999	05	24.02	23.345	64.587	63.081	3.3407	4.6749	20.23	20.162	1.8052	1.7578	299.22	296.51	5.7457	6.0252	3.0035	3.0035
1999	06	23.861	24.599	57.914	58.383	0	0	25.81	25.711	6.2478	6.1999	256.46	255.66	2.0391	2.0445	2.8755	2.8755
1999	07	44.644	46.032	45.425	46.45	0	0	27.71	27.614	9.8171	9.7778	220.92	220.02	2.2023	2.1701	3.009	3.009
1999	08	65.973	66.821	56.618	57.655	0	0	26.47	26.375	9.3814	9.2915	220.36	219.67	3.0822	2.9584	2.6714	2.6714
1999	09	37.66	38.275	36.401	36.046	0	0	23.141	23.064	5.1005	5.0867	224.77	224.05	2.2606	2.2971	2.5715	2.5715
1999	10	38	35.935	23.123	23.95	0	0	17.641	17.692	0.63434	0.6336	224.3	225.64	2.9533	2.9392	2.6893	2.6893
1999	11	34.201	35.047	13.156	12.051	0.29	0.51456	9.8749	9.8405	-6.8201	-6.815	226.15	234.24	2.8899	2.848	2.814	2.814
1999	12	23.946	22.765	9.0461	7.6341	5.2187	5.9359	4.1893	4.2053	-11.392	-11.376	247.91	246.6	2.0203	2.1434	3.0653	3.0653
2000	01	32.681	32.959	10.023	10.449	15.274	14.303	4.0569	4.1325	-11.682	-11.574	252.26	245.8	2.3928	2.6342	3.1682	3.1682
2000	02	27.446	27.813	12.777	12.228	26.501	23.574	6.2955	6.2974	-9.3545	-9.2561	259.75	261.89	3.1521	3.7134	2.9428	2.9428
2000	03	38.185	39.736	23.134	24.542	26.62	23.026	10.825	10.732	-5.7244	-5.7204	271.51	276.11	6.4517	6.6261	3.174	3.174
2000	04	22.668	22.27	39.119	40.449	16.859	14.757	16.113	16.034	-2.0495	-2.1255	290.84	291.53	7.9054	7.2283	3.4151	3.4151
2000	05	29.937	28.449	60.685	59.581	0.90222	0.49667	20.954	20.934	2.3378	2.2816	281.31	280.47	4.5082	4.1155	2.864	2.864
2000	06	19.384	18.876	48.618	47.68	0	0	26.316	26.403	6.5572	6.6218	246.55	244.86	1.7454	1.7205	3.0562	3.0562
2000	07	48.993	48.882	45.14	45.15	0	0	27.814	27.893	9.9716	10.029	216.05	215.44	2.3082	2.1978	2.9421	2.9421
2000	08	66.441	67.935	55.868	55.541	0	0	26.358	26.372	9.2604	9.2971	219.47	219.54	3.0875	3.2895	2.5999	2.5999
2000	09	35.279	34.803	33.763	34.532	0	0	23.81	23.765	5.8288	5.7674	225.68	226.12	2.3432	2.2818	2.6161	2.6161
2000	10	33.458	33.599	23.042	22.388	0.0001111	0	17.902	17.854	-0.25091	-0.30683	225.75	224.86	2.6874	2.7209	2.7761	2.7761
2000	11	35.668	37.379	11.775	12.348	0.80056	0.70567	9.3373	9.3417	-6.6661	-6.631	233.13	234.03	2.8934	3.0321	2.863	2.863
2000	12	32.156	31.629	10.2	10.141	6.7764	6.3786	4.1404	4.2371	-10.992	-10.915	246.04	247.83	2.2265	2.18	3.1745	3.1745
2001	01	40.417	40.34	11.085	10.499	20.302	19.983	3.1837	3.177	-12.252	-12.267	252.88	254.08	2.5111	2.3937	3.0694	3.0694
2001	02	23.837	23.942	11.458	12.013	36.5	37.947	5.524	5.5493	-10.032	-9.9497	262.44	262.6	2.8955	2.7835	3.0615	3.0615
2001	03	35.008	35.572	21.345	21.082	36.848	37.426	10.202	10.1	-6.5116	-6.5243	272.9	273.04	5.6864	5.6661	2.9969	2.9969
2001	04	31.54	31.537	39.977	39.928	25.288	25.92	14.659	14.569	-2.6935	-2.713	292.26	292.71	7.9387	8.0203	3.2867	3.2867
2001	05	23.322	23.133	63.248	63.587	3.69											

2003	11	45.511	44.049	14.347	12.897	0.93067	0.020111	10.092	10.234	-6.3891	-6.2666	232.64	236.78	3.1408	3.6889	2.9396	2.9396
2003	12	26.961	27.72	10.214	9.8395	11.163	7.0218	4.2909	4.0148	-11.051	-11.195	248.22	254	2.2789	2.201	2.9862	2.9862
2004	01	37.572	35.632	10.36	10.724	20.435	16.374	3.3793	3.4856	-11.893	-11.869	255.39	260.07	2.5407	2.4885	3.1774	3.1774
2004	02	27.462	27.612	13.442	13.366	33.989	30.151	6.2728	6.2457	-9.4528	-9.4619	264.59	268.43	3.1927	3.2438	3.0917	3.0917
2004	03	38.213	37.332	22.646	22.41	35.6	31.717	10.32	10.312	-6.2169	-6.2137	274.51	279.38	6.241	6.8917	3.2747	3.2747
2004	04	25.425	26.269	41.387	42.74	25.148	18.883	15.706	15.648	-2.2376	-2.2626	294.77	299.41	9.527	8.6668	3.3955	3.3955
2004	05	28.945	28.592	63.248	64.693	2.7133	1.7877	20.532	20.585	2.1565	2.1833	290.29	290.6	5.6496	4.794	2.9313	2.9313
2004	06	23.188	23.488	55.859	54.714	0	0	25.961	25.995	6.3374	6.3469	253	251.66	1.8654	1.9528	2.9877	2.9877
2004	07	49.396	49.928	47.924	47.879	0	0	27.533	27.539	9.7942	9.8135	219.64	218.88	2.3213	2.3062	2.9342	2.9342
2004	08	65.227	64.071	55.998	55.687	0	0	26.574	26.637	9.4729	9.559	220.31	219.97	3.0886	2.9566	2.714	2.714
2004	09	38.683	37.921	35.957	36.443	0	0	23.428	23.45	5.5413	5.5481	224.65	224.56	2.4694	2.3258	2.578	2.578
2004	10	42.399	43.793	25.684	23.873	0	0	18.012	17.91	-0.01124	-0.04125	226.7	223.84	3.3962	3.4107	2.7166	2.7166
2004	11	45.041	46.449	13.285	13.707	0.50456	0.51367	8.8144	8.6086	-6.8239	-6.9006	240.64	242.74	3.3886	3.4559	2.8485	2.8485
2004	12	24.374	22.047	9.3199	9.2053	9.7119	9.8962	4.899	4.8774	-10.62	-10.672	256.77	258.41	2.3786	2.3659	3.1044	3.1044
2005	01	35.786	35.223	10.876	10.597	16.333	15.756	3.7762	3.8939	-11.787	-11.653	263.32	264.68	2.4162	2.4159	3.2109	3.2109
2005	02	24.151	23.914	12.851	12.151	30.539	29.7	6.8511	6.846	-9.1492	-9.2433	270.48	271.63	2.8798	2.8301	3.0058	3.0058
2005	03	44.942	42.434	25.497	24.591	32.025	30.751	10.218	10.465	-5.9199	-5.8783	278.94	280.8	6.4476	6.2309	3.2055	3.2055
2005	04	32.432	32.41	40.854	42.017	24.066	23.693	15.121	15.106	-2.6116	-2.6778	299.29	299.28	10.309	9.247	3.2032	3.2032
2005	05	20.47	20.399	63.868	62.537	3.258	3.2256	20.756	20.756	1.6535	1.6187	300.82	299.26	6.6776	6.4227	3.1044	3.1044
2005	06	18.696	17.943	52.621	52.641	0	0	26.32	26.421	6.448	6.5371	253.19	253.89	1.774	1.829	2.8209	2.8209
2005	07	45.004	44.919	44.989	43.534	0	0	27.985	28.036	9.9621	9.9976	218.5	218.18	2.3876	2.2033	2.9616	2.9616
2005	08	66.157	65.714	54.453	54.829	0	0	26.538	26.608	9.3712	9.3939	217.53	218.76	3.2139	3.0385	2.5298	2.5298
2005	09	35.903	35.619	35.895	34.962	0	0	23.658	23.674	5.2215	5.2098	225.14	225.61	2.1772	2.2446	2.4974	2.4974
2005	10	33.736	31.708	20.607	22.133	0	0	18.066	18.122	-0.47356	-0.52901	224.52	224.26	2.9359	2.7352	2.6855	2.6855
2005	11	28.848	28.769	12.638	11.5	0.60256	0.35844	10.215	10.26	-6.4455	-6.3705	233.5	231.84	2.5963	2.5137	2.8443	2.8443
2005	12	26.455	28.903	9.329	9.5653	4.1853	4.8314	5.4056	5.1831	-10.606	-10.805	242.73	240.74	2.0695	2.234	3.0521	3.0521
2006	01	31.508	34.171	9.7987	10.218	14.436	14.752	3.856	3.8746	-11.599	-11.404	248.32	246.72	2.3546	2.4289	3.0878	3.0878
2006	02	21.365	26.005	11.561	12.595	24.197	26.946	6.9643	6.4785	-9.1043	-8.9077	256.53	258.29	3.2403	3.2928	3.1497	3.1497
2006	03	43.596	44.059	23.971	23.898	20.577	27.981	10.695	10.803	-5.7649	-5.7205	268.41	268.42	5.8064	6.6038	3.2814	3.2814
2006	04	33.027	33.184	38.749	40.409	15.132	17.585	15.022	15.069	-2.5092	-2.2838	288.52	290.81	7.8039	8.7763	3.3905	3.3905
2006	05	25.192	24.193	58.307	62.869	1.8368	1.1653	20.72	20.84	1.8809	2.2785	285.44	289.8	4.8188	4.0818	2.9826	2.9826
2006	06	17.008	21.93	48.202	51.823	0	0	26.773	26.016	6.5898	6.3612	249.04	248.64	1.7314	1.8399	2.9379	2.9379
2006	07	48.01	50.172	45.94	47.711	0	0	28.335	28.208	10.253	10.112	217.17	217.86	2.2407	2.285	2.971	2.971
2006	08	71.625	72.786	59.999	59.263	0	0	26.745	26.574	9.4946	9.4469	218.79	219.82	3.3004	3.3551	2.5816	2.5816
2006	09	37.335	32.943	35.688	36.226	0	0	23.769	23.813	5.3745	5.5446	225.39	228.1	2.3779	2.1264	2.4697	2.4697
2006	10	38.966	38.43	21.196	24.257	0	0	17.754	18.085	-0.5583	-0.00824	225.23	222.75	3.4156	3.1031	2.8186	2.8186
2006	11	42.774	42.225	13.534	12.493	1.6132	0.18733	10.027	10.073	-6.2708	-6.5174	239.93	235.81	3.7661	3.5875	2.7859	2.7859
2006	12	21.869	27.426	8.5938	9.2256	6.9132	7.0658	5.6543	4.1476	-10.265	-10.923	257.3	252.5	2.2138	2.3673	3.1035	3.1035
2007	01	36.566	32.189	11.076	10.192	13.333	17.359	4.2936	3.6456	-10.889	-11.605	262.41	258.37	2.8362	2.4626	3.1203	3.1203
2007	02	22.13	25.787	11.857	12.704	24.708	28.691	7.0338	6.6757	-8.4011	-8.8967	272.93	265.66	3.2866	3.1887	3.056	3.056
2007	03	39.224	35.674	24.909	22.116	23.459	28.74	10.704	10.375	-5.8741	-6.188	282.95	276.16	5.9849	5.9699	3.1712	3.1712
2007	04	26.551	32.796	41.497	41.836	15.228	20.58	15.45	15.638	-2.3571	-2.4005	298.06	293.03	6.7973	9.1014	3.3359	3.3359
2007	05	26.133	25.549	61.828	61.479	3.0924	1.6284	20.548	20.633	1.9949	2.2385	288.23	291.71	5.2929	5.4667	2.9509	2.9509
2007	06	23.216	26.987	51.16	55.829	0	0	26.034	26.117	6.2844	6.5898	249.92	252.28	2.0359	2.0215	2.8761	2.8761
2007	07	47.212	51.118	47.206	50.913	0	0	27.972	28.23	9.954	10.048	220.8	222.78	2.2444	2.3908	3.0345	3.0345
2007	08	69.135	67.409	57.814	59.827	0	0	26.869	26.775	9.4123	9.3094	219.87	221.3	3.2181	3.0395	2.615	2.615
2007	09	31.514	33.056	34.107	33.394	0	0	24.094	23.871	5.4917	5.6152	226.79	225.41	2.0997	2.2117	2.5512	2.5512
2007	10	19.872	31.983	18.267	20.749	0	0	18.832	17.97	-0.16142	-0.54634	223.24	222.65	1.9911	2.7531	2.8216	2.8216
2007	11	39.299	35.456	12.766	12.609	0.32533	0.26678	10.352	10.098	-6.5302	-6.4103	224.21	232.31	2.9325	3.0391	2.8654	2.8654
2007	12	29.107	23.408	9.1869	8.7465	6.755	4.5136	4.828	4.3397	-10.746	-11.09	238.11	245.69	2.1602	2.1059	3.1368	3.1368
2008	01	30.864	36.236	9.443	10.352	17.164	12.346	4.2528	3.8797	-11.573	-11.239	245.45	251.02	2.1472	2.4927	3.0485	3.0485
2008	02	27.352	24.297	13.419	12.665	29.617	25.891	6.4868	6.5577	-9.2038	-9.0352	251.69	260.31	2.7657	3.0867	3.0851	3.0851
2008	03	38.901	40.186	22.836	22.28	30.954	23.808	10.624	10.331	-5.6937	-6.0092	262.87	271.32	5.7794	6.0637	3.2821	3.2821
2008	04	28.713	24.553	39.839	40.379	18.441	16.192	15.704	16.153	-2.3109	-2.0685	285.92	290.32	7.7085	8.346	3.2414	3.2414
2008	05	24.221	30.759	58.907	60.601	1.9082	0.52756	20.925	20.948	2.3972	2.5076	282.27	281.44	5.1774	4.3079	2.9862	2.9862
2008	06	22.429	19.9	49.527	48.562	0.0001111	0	26.02	26.428	6.4549	6.6692	244.19	248.19	1.8082	1.8368	2.9966	2.9966
2008	07	53.014	46.681	47.818	44.831	0	0	28.065	28.493	10.077	10.369	216.3	218.31	2.3814	2.2362	3.1309	3.1309
2008	08	72.142	66.945	58.81	56.277	0	0	26.628	26.914	9.3148	9.4782	220.05	219.56	3.5288	3.1431	2.5756	2.5756
2008	09	35.107	33.05	35.912	33.161	0	0	23.648	23.888	5.3073	5.2959	229.19	225.4	2.329	2.2681	2.4358	2.4358
2008	10	30.936	39.468	21.545	21.224	0	0	18.208	18.456	-0.48295	-0.12869	225.8	223.52	2.8339	3.8652	2.6702	2.6702
2008	11	38.47	54.103	12.762	14.424	0.143	0.22922	9.9605	9.8518	-6.6044	-6.0069	233.98	239.1	3.1087	3.9618	2.9703	2.9703
2008	12	34.269	26.064	9.5685	8.9618	6.1251	11.233	3.4047	4.1856	-11.394	-10.867	248.43	261.23	2.1049	2.5674	3.0366	3.0366
2009	01	36.691	37.941	10.439	10.38	23.454	18.136	3.5804	3.546	-11.773	-11.866	254.11	269.16	2.5022	3.0683	3.0312	3.0312
2009	02	24.41	26.751	12.342	12.791	37.016	33.371	6.9161	6.4701	-8.4791	-9.0989	263.09	278.51	2.9918	3.6806	3.1068	3.1068
2009	03	31.68	36.709	22.54	22.555	35.922	33.837	10.576	10.224	-5.7374	-6.1427</						

2011	09	39.09	34.557	37.22	34.827	0	0	23.661	23.572	5.5883	5.3883	226.83	227.05	2.5024	2.2462	2.5647	2.5647
2011	10	32.81	37.115	21.636	20.763	0	0.0002222	17.857	17.621	-0.35999	-0.30271	227.04	225.82	2.884	3.3696	2.7588	2.7588
2011	11	50.077	39.701	13.548	12.996	0.44656	0.54567	9.0848	9.8713	-6.4751	-6.2567	236.67	238.77	3.3982	3.0609	3.003	3.003
2011	12	26.681	22.553	9.1863	9.295	12.294	8.7377	4.9707	5.3871	-10.357	-10.032	254.55	251.83	2.4826	2.5151	3.2022	3.2022
2012	01	36.487	34.126	10.211	9.9726	20.09	12.924	4.0137	4.3476	-11.464	-11.503	262.3	259.96	2.4577	2.4659	3.0673	3.0673
2012	02	25.127	23.808	13.631	12.635	36.32	25.909	6.9208	7.0504	-8.7367	-8.5076	269.64	267.02	3.3881	2.9903	3.066	3.066
2012	03	34.908	29.26	25.064	23.848	33.321	25.14	11.391	11.444	-5.7982	-5.3322	281.3	276.61	7.1057	5.6459	3.3288	3.3288
2012	04	29.842	21.603	43.096	39.772	19.217	12.963	15.458	16.108	-2.331	-2.0371	297.9	289.66	9.1466	6.1251	3.2766	3.2766
2012	05	27.365	22.748	65.561	57.15	1.2829	0.216	20.708	21.361	2.3995	2.637	292.94	276.69	4.2207	2.5398	3.0793	3.0793
2012	06	26.73	26.644	56.857	48.446	0	0	25.832	26.553	6.5492	6.9836	252.24	240.15	1.9975	1.9033	3.0646	3.0646
2012	07	51.579	51.942	49.256	46.952	0	0	28.198	28.331	10.183	10.177	220.21	217.02	2.3266	2.3938	3.0764	3.0764
2012	08	60.454	68.651	54.193	57.067	0	0	27.16	26.752	9.7139	9.6005	221.57	219.94	2.8751	3.2888	2.5344	2.5344
2012	09	31.63	32.649	33.959	36.12	0	0	24.58	24.199	5.7366	5.8666	224.75	227.63	2.0677	2.0623	2.5485	2.5485
2012	10	30.418	36.268	18.939	22.633	0	0	18.526	18.685	-0.23406	0.15447	220.84	223.22	2.6198	3.3336	2.7492	2.7492
2012	11	40.019	38.103	12.596	13.001	0.68456	0.17556	9.9759	10.149	-6.4387	-6.1732	229.69	233.71	2.8093	3.0181	2.8819	2.8819
2012	12	25.951	22.519	9.2194	8.4746	10.022	6.3361	4.8019	4.4029	-10.403	-10.671	242.71	247.87	2.314	2.1839	3.0833	3.0833
2013	01	38.831	40.987	10.009	10.474	19.38	13.221	3.13	3.8184	-12.116	-11.607	249.83	253.65	2.3898	2.8054	3.0602	3.0602
2013	02	28.767	28.701	12.228	12.155	35.645	28.924	6.167	6.5752	9.2996	-8.6723	257.68	264.35	3.0905	3.359	3.0513	3.0513
2013	03	44.755	37.534	24.924	23.718	35.945	30.437	10.643	10.786	-5.7854	-5.7179	271.61	276.83	6.9932	6.9449	3.175	3.175
2013	04	25.267	25.513	40.569	40.809	25.708	18.1	15.312	15.82	-2.283	-2.2689	294.45	296.19	8.9152	8.4852	3.2544	3.2544
2013	05	28.814	22.945	67.141	62.021	0.90356	0.46311	20.813	20.701	2.4073	2.2067	294.67	288.61	4.2924	3.7462	3.0043	3.0043
2013	06	24.621	23.849	55.126	51.403	0	0	26.115	26.586	6.7685	6.7224	252.2	246.31	1.8841	1.8181	3.1396	3.1396
2013	07	48.687	49.241	47.989	46.594	0	0	28.324	28.418	10.337	10.464	220.12	218.54	2.2764	2.2783	3.0284	3.0284
2013	08	56.914	65.582	56.162	56.447	0	0	27.067	27.021	9.6683	9.7808	219.53	220.24	3.1549	3.0777	2.6048	2.6048
2013	09	36.478	26.695	35.912	30.417	0	0	24.321	24.116	5.8597	5.7241	226.63	224.24	2.43	1.8613	2.4888	2.4888
2013	10	35.489	30.875	22.608	20.724	0	0	18.705	18.864	-0.06889	0.18793	225.96	219.69	3.1268	2.5981	2.7508	2.7508
2013	11	42.579	42.243	12.99	12.874	0.036111	0.41211	9.9368	10.167	-6.3103	-6.0595	236.4	227.94	3.2969	3.3382	2.9493	2.9493
2013	12	27.484	28.984	9.7182	8.6604	8.5258	6.8141	4.88	3.9993	-10.399	-11.025	251.53	245.23	2.5002	2.0188	2.9741	2.9741
2014	01	46.874	33.24	12.416	10.409	18.259	20.803	3.7487	5.0352	-11.658	-10.304	259.43	250.42	2.7892	2.8037	3.1769	3.1769
2014	02	28.059	27.345	13.433	12.828	37.028	28.643	6.1165	6.9982	-9.3774	-8.6645	269.94	261.78	3.4707	2.9042	3.0601	3.0601
2014	03	49.465	38.069	23.799	22.872	37.892	31.897	9.8442	10.672	-5.8868	-5.8941	281.32	271.42	8.9483	6.5686	3.1973	3.1973
2014	04	29.965	24.779	40.869	38.382	27.276	20.657	15.239	15.587	2.2515	-2.3699	308.11	291.4	12.943	8.3347	3.2446	3.2446
2014	05	25.798	27.589	69.358	60.815	2.1822	1.9114	20.752	20.67	2.5004	2.3128	308.01	286.13	5.6035	4.5761	3.0775	3.0775
2014	06	22.835	22.172	61.26	52.973	0	0	26.217	26.589	6.9529	6.8977	261.58	250.01	1.9632	1.8518	3.1156	3.1156
2014	07	50.329	44.519	50.283	44.24	0	0	27.948	28.442	8.9568	10.393	221.59	218.57	2.2919	2.1588	2.919	2.919
2014	08	69.931	65.779	60.37	54.116	0	0	26.751	27.295	9.5162	9.8178	221.36	217.55	3.079	2.9889	2.6209	2.6209
2014	09	33.827	34.251	33.98	34.481	0	0	23.794	23.977	5.4324	5.3946	226.25	225.44	2.2582	2.243	2.4905	2.4905
2014	10	25.466	25.862	19.41	19.14	0	0	18.835	18.912	-0.26905	-0.09555	224.7	223.54	2.3316	2.4722	2.7655	2.7655
2014	11	42.398	46.281	14.89	12.654	0.16078	0.63744	10.468	9.5333	-5.7688	-6.4105	229.02	228.16	3.2375	3.1923	2.8978	2.8978
2014	12	22.048	23.745	8.8971	8.5203	5.0467	11.754	5.1338	4.9188	-10.498	-10.461	246.35	245.47	2.0896	2.3977	3.0007	3.0007
2015	01	34.554	34.634	10.485	10.424	12.593	16.965	4.7651	4.4119	-10.519	-10.67	251.5	254.02	2.5424	2.5449	3.0789	3.0789
2015	02	23.777	26.603	11.824	12.078	23.188	29.412	6.7276	6.7477	-9.0369	-9.0901	260.77	263.06	2.8604	2.7406	2.9988	2.9988
2015	03	40.781	38.612	23.628	23.637	23.924	33.001	10.823	9.9774	-5.5934	-6.1383	269.77	271.81	5.5486	5.7095	3.2458	3.2458
2015	04	30.502	29.82	43.291	40.706	15.556	22.883	16.448	15.254	-1.7006	-2.5585	289.85	290.98	8.3611	7.9614	3.3515	3.3515
2015	05	25.936	28.497	59.448	62.296	1.1757	2.7373	20.872	20.629	2.3008	1.8718	282.07	291.15	4.2344	5.7576	3.0706	3.0706
2015	06	22.506	23.417	50.023	53.638	0	0	26.425	26.277	6.6853	6.7993	245.53	253.44	1.8273	1.9621	3.0101	3.0101
2015	07	45.24	45.748	43.044	46.848	0	0	28.493	28.322	10.354	10.416	216.64	222.13	2.1579	2.2473	3.045	3.045
2015	08	74.393	82.582	60.349	65.776	0	0	26.749	26.793	9.5093	9.5639	218.18	220.81	3.5043	3.7748	2.6864	2.6864
2015	09	41.686	36.179	38.589	38.149	0	0	23.494	23.563	5.4417	5.2773	227.51	232.18	2.6979	2.382	2.5067	2.5067
2015	10	44.114	43.64	26.296	24.745	0	0	18.174	18.027	-0.26599	-0.07644	230.3	228.89	3.7942	3.7429	2.6955	2.6955
2015	11	34.117	45.876	14.383	13.867	0.035778	0.57467	10.331	9.4458	6.1639	6.5679	243.84	244.87	2.8232	3.6898	3.006	3.006
2015	12	37.777	23.568	9.2913	8.4895	4.897	9.2554	4.8394	4.5751	-10.642	-11.003	253.74	261.53	2.2856	2.3277	3.0217	3.0217
2016	01	37.377	36.62	10.582	10.122	11.664	17.34	4.1399	4.3231	-11.152	-11.003	259.82	267.05	2.5073	2.8403	3.0738	3.0738
2016	02	27.12	27.452	13.32	12.814	26.578	30.315	7.0926	6.5434	-8.4294	-9.1869	268.63	276.62	2.9576	3.1622	3.0999	3.0999
2016	03	36.391	42.907	24.366	23.222	27.567	34.917	10.639	9.754	-5.8958	-6.2089	279.25	285.91	5.521	7.5433	3.2327	3.2327
2016	04	20.625	28.978	40.906	41.172	17.063	27.12	16.262	15.466	-2.2621	-2.4501	295.49	305.65	6.7811	12.411	3.274	3.274
2016	05	27.48	28.047	63.506	65.991	0.64256	2.1713	21.126	20.781	2.64	2.4138	284.28	303.56	3.5966	6.7559	2.9702	2.9702
2016	06	24.078	23.237	50.392	59.755	0	0	26.322	26.152	6.7944	6.5882	245.17	261.02	1.871	1.9822	3.064	3.064
2016	07	47.426	50.883	45.044	50.457	0	0	28.595	27.976	10.489	10.214	217.71	223.15	2.234	2.3494	2.9382	2.9382
2016	08	66.881	68.385	56.228	59.953	0	0	27.078	27.06	9.9702	9.9209	218.95	222.39	3.0251	3.1836	2.6191	2.6191
2016	09	33.473	39.112	34.073	38.511	0	0	24.263	24.054	5.7171	5.875	225.48	227.53	2.3012	2.3356	2.523	2.523
2016	10	33.001	39.06	22.273	23.38	0	0	18.301	18.833	-0.37577	0.22184	232.62	226.02	2.8297	3.4336	2.6594	2.6594
2016	11	41.125	39.368	13.366	13.827	0.16033	0.37433	9.7643	10.772	-6.1521	-5.7278	232.41	230.03	3.0137	3.394	2.7821	2.7821
2016	12	29.441	30.58	9.8658	9.2311	7.4673	4.3756	3.9758	5.2957	-11.145	-10.131	247.3	254.95	2.2423	2.5891	3.0316	3.0316
2017	01	32.517	42.816	9.709	10.411	17.											

2019	07	46.722	51.691	44.607	48.548	0	0	28.647	28.46	10.393	10.573	216.66	219.3	2.2002	2.4164	3.0434	3.0434
2019	08	71.214	68.663	58.799	60.122	0	0	27.191	27.038	10.003	9.7956	217.33	221.52	3.1928	3.1618	3.6027	3.6027
2019	09	30.495	33.095	32.464	34.838	0	0	24.171	24.384	5.3308	5.9136	224.56	225.63	2.1227	2.0636	2.4928	2.4928
2019	10	18.596	34.701	18.901	22.734	0	0	19.983	18.947	0.46153	0.2161	221.14	222.84	1.7731	2.895	2.7336	2.7336
2019	11	40.638	32.375	13.263	11.832	0.050889	0.0044444	10.817	10.324	-6.2767	-5.9127	220.56	231.99	3.059	2.863	2.7825	2.7825
2019	12	23.578	23.513	8.8854	8.8267	5.2391	4.6767	5.1649	4.6661	-10.57	-10.492	237.29	243.57	2.0866	2.1385	3.0756	3.0756
2020	01	34.085	25.583	10.321	9.15	12.429	11.983	4.6373	4.2233	-11.046	-11.834	243.56	249.34	2.4201	2.2621	3.0806	3.0806
2020	02	25.22	28.635	12.406	12.626	23.395	19.65	7.431	7.4472	-8.3321	-8.2747	252.62	255.71	2.905	3.2568	3.0146	3.0146
2020	03	35.924	39.38	22.225	23.028	24.233	21.333	10.947	11.106	-6.0924	-5.6047	263.1	267.47	4.7038	6.0054	3.2321	3.2321
2020	04	24.626	25.973	37.57	40.395	18.518	12.388	16.433	16.325	-2.0927	-1.9954	277.28	285.42	7.3121	6.1812	3.2143	3.2143
2020	05	24.765	20.786	57.074	54.524	1.5359	0.56478	21.327	21.801	2.6218	2.7831	273.4	275.93	4.1923	3.2228	3.1692	3.1692
2020	06	23.656	26.221	46.497	46.981	0	0	26.666	26.842	7.0252	7.0903	238.5	240.07	1.8013	2.0219	2.9886	2.9886
2020	07	43.507	51.424	41.098	47.574	0	0	28.858	28.58	10.475	10.508	214.38	217.97	2.1108	2.4157	3.068	3.068
2020	08	72.333	64.06	57.202	55.941	0	0	26.972	27.609	9.5323	10.166	215.99	220.38	3.4531	2.9762	2.5795	2.5795
2020	09	30.212	28.714	32.099	33.107	0	0	24.485	24.779	5.8879	5.9267	226.21	224.37	2.2072	1.9227	2.4837	2.4837
2020	10	32.981	39.324	19.711	22.459	0	0	18.842	19.064	-0.17985	0.2906	222.98	18.63	3.1597	3.1975	2.7804	2.7804
2020	11	42.929	47.31	13.169	13.249	1.0184	0.32267	10.251	9.6754	-5.9152	-6.1198	233.78	233.15	2.8376	3.2799	2.9052	2.9052
2020	12	23.949	34.934	9.4887	9.8138	13.043	12.129	4.7961	5.0009	-10.522	-10.376	245.91	249.89	2.2886	2.4982	3.037	3.037
2021	01	31.91	43.435	10.398	10.781	19.249	26.119	4.7152	4.5492	-10.941	-10.718	252.79	259.75	2.6122	2.7765	3.0371	3.0371
2021	02	28.022	25.501	13.35	13.203	27.714	43.84	6.3711	6.7678	-9.1486	-9.1241	262.15	270.28	2.757	2.9776	3.0477	3.0477
2021	03	37.11	37.362	24.015	24.908	30.831	44.496	10.71	11.109	-6.0092	-5.6015	271.18	280.52	5.5988	7.5698	3.2299	3.2299
2021	04	25.349	29.467	40.936	43.235	21.567	27.69	16.456	15.717	-1.7622	-1.9755	288.71	302.07	9.0368	11.823	3.3405	3.3405
2021	05	27.417	33.002	62.892	67.881	1.0509	3.573	21.25	20.797	2.6136	2.7807	283.82	298.89	4.8454	7.3893	2.9635	2.9635
2021	06	32.012	21.403	53.805	59.226	0	0	26.336	26.457	7.0671	6.9377	244.4	260.51	2.0922	1.9855	3.0428	3.0428
2021	07	57.288	46.219	53.78	46.667	0	0	28.026	28.601	9.9944	10.398	220.83	221.44	2.5287	2.2089	3.0691	3.0691
2021	08	64.554	69.118	58.074	57.747	0	0	27.297	27.304	9.61	9.9362	222.86	219.99	3.1157	3.1694	2.6655	2.6655
2021	09	40.869	33.727	37.323	35.411	0	0	24.276	24.386	6.2852	5.9879	225.67	227.34	2.5616	2.1294	2.5793	2.5793
2021	10	36.582	33.835	24.666	22.921	0	0	18.311	18.313	0.59749	0.14508	226.45	229.77	2.9797	2.8205	2.7645	2.7645
2021	11	39.659	38.289	12.636	13.027	0.141	0.094889	10.011	10.721	-6.3852	-5.9497	236.33	233.92	3.1302	3.0686	2.7895	2.7895
2021	12	28.09	30.31	8.8367	9.345	7.6974	6.204	4.0742	4.5238	-10.762	-10.249	251.06	247.1	2.3532	2.4727	2.9982	2.9982
2022	01	34.867	34.618	10.559	10.342	18.783	16.877	4.8963	4.3089	-10.997	-10.993	258.2	256.34	2.6412	2.6272	3.1913	3.1913
2022	02	26.186	29.858	12.598	14.005	29.794	27.652	6.9482	6.9122	-8.1357	-8.5475	267.49	265.46	3.1545	3.1232	3.1309	3.1309
2022	03	32.092	42.418	24.242	22.444	29.841	29.539	11.231	10.432	-5.6749	-5.8856	278.6	277.62	6.1549	6.1566	3.1845	3.1845
2022	04	32.375	24.262	45.294	42.338	15.638	21.839	16.073	15.712	-1.6813	-1.9939	294.81	298.13	8.1904	8.1003	3.2989	3.2989
2022	05	28.24	26.341	63.463	63.365	1.4757	3.8611	21.209	21.212	2.649	2.9045	286.05	289.2	4.6491	5.4908	3.0835	3.0835
2022	06	20.704	18.197	50.323	50.829	0	0	26.978	26.666	6.9904	6.8397	247.97	250.59	1.8974	1.7764	3.0612	3.0612
2022	07	48.333	47.622	45.513	45.234	0	0	28.81	29.041	10.791	10.953	217.1	217.54	2.2689	2.234	3.0515	3.0515
2022	08	64.027	71.284	56.328	58.375	0	0	27.449	27.223	9.9856	9.9293	218.71	218.4	2.8736	3.2772	2.5106	2.5106
2022	09	30.147	35.401	32.621	35.628	0	0	24.6	24.639	5.9417	6.2013	222.56	226.89	1.9325	2.3248	2.4757	2.4757
2022	10	29.276	29.877	20.701	20.536	0	0	18.886	18.598	0.22634	0.012681	218.67	224.81	2.4279	2.7689	2.7252	2.7252
2022	11	46.755	39.7	12.622	14.4	0.11956	0.31789	10.327	10.279	-5.8359	-5.9883	226.34	232.32	3.6702	2.9919	2.9202	2.9202
2022	12	33.065	33.132	8.9523	10.878	7.0169	5.8949	4.173	4.9097	-11.172	-9.8977	247.38	247.38	2.2839	2.7163	3.1978	3.1978
2023	01	29.001	34.688	9.6143	10.532	20.73	15.632	4.2627	4.7081	-11.621	-10.402	255.49	258.05	2.4552	2.9111	3.1564	3.1564
2023	02	28.738	27.741	12.214	12.657	30.637	25.886	6.7893	6.9587	-8.5829	-8.0699	263.02	268.25	3.1674	3.2542	3.0276	3.0276
2023	03	34.432	43.348	24.706	24.301	31.919	26.927	10.784	10.656	-5.6178	-5.8265	275.21	279.79	5.9905	6.8741	3.2602	3.2602
2023	04	28.233	27.456	42.514	43.098	18.437	19.022	16.428	15.841	-1.3841	-1.7246	292.77	299.22	8.8872	8.3052	3.3407	3.3407
2023	05	22.999	28.921	61.076	65.75	1.0547	2.3489	21.044	21.297	2.4448	2.9852	285.93	291.16	4.4239	5.6193	3.0165	3.0165
2023	06	21.152	26.191	48.898	55.803	0	0	26.775	26.892	6.8486	7.3294	244.27	250.78	1.7543	1.9545	3.1676	3.1676
2023	07	51.745	51.704	47.361	49.353	0	0	28.553	28.648	10.594	10.79	215.3	220.02	2.2849	2.3605	3.0305	3.0305
2023	08	66.317	75.262	55.219	63.49	0	0	27.287	27.156	9.9864	9.9797	218.16	222.11	3.1935	3.4417	2.6208	2.6208
2023	09	27.531	37.061	32.28	38.326	0	0	25.105	24.375	6.2497	6.2593	225.13	228.05	2.0138	2.2612	2.4521	2.4521
2023	10	35.013	34.413	21.402	24.41	0	0	19.035	18.94	0.41703	0.00734	219.48	226.06	2.8536	2.7659	2.7464	2.7464
2023	11	34.673	32.145	13.44	12.472	0.18656	0.28122	10.702	10.284	-5.9938	-6.1071	230.19	233.9	2.8778	2.6885	2.883	2.883
2023	12	33.427	26.047	9.7452	9.9381	4.3722	4.544	5.6144	5.7361	-9.6093	-9.8267	243.44	244.55	2.4953	2.4127	3.1499	3.1499
2024	01	37.97	34.294	9.7839	9.8269	15.869	10.158	4.4805	4.9134	-10.651	-10.322	252.96	253.33	2.7436	2.5155	3.0095	3.0095
2024	02	24.777	25.337	13.239	12.718	29.132	22.255	7.8511	7.2426	-7.9457	-8.1702	264.64	262.07	3.2001	2.9054	3.0086	3.0086
2024	03	49.838	43.018	25.084	26.392	27.51	23.036	10.596	11.608	-5.4598	-4.9826	276.03	272.53	7.3168	6.5756	3.2946	3.2946
2024	04	28.914	23.248	41.617	41.468	22.423	12.616	15.889	16.516	-1.6638	-1.6275	297.64	291.7	12.506	7.2663	3.3207	3.3207
2024	05	24.461	25.679	62.681	60.41	0.81056	0.36889	21.281	21.796	2.5434	3.0955	292.8	277.81	4.9041	3.3901	2.9807	2.9807
2024	06	19.246	25.02	53.203	47.87	0	0	27.516	27.148	7.4038	7.4107	251.3	240.03	1.7884	1.8592	3.1005	3.1005
2024	07	45.83	47.012	43.387	43.661	0	0	29.093	28.93	10.752	10.672	216.34	216.01	2.1787	2.2744	3.0606	3.0606
2024	08	75.657	65.923	61.377	57.665	0	0	27.299	27.348	9.9234	9.9515	218.04	217.96	3.3709	2.9007	2.6311	2.6311
2024	09	31.538	33.211	34.405	35.529	0	0	24.8	24.549	6.1156	6.2469	227.53	222.81	2.1555	2.054	2.4164	2.4164
2024	10	42.335	39.342	23.886	23.3	0	0	18.651	17.853	0.39483	-0.16894	224.8	219.93	3.5153	2.9486	2.7577	2.7577
2024	11	40.003	39.947	14.191	13.537	0.75611	0.27367	10									

2027	05	19.267	27.357	63.603	67.683	0.10156	1.3051	21.598	21.395	2.8135	2.8453	292.61	298.94	3.4818	6.2936	2.9892	2.9892
2027	06	23.697	20.986	49.583	54.141	0	0	26.666	26.852	6.9807	6.9666	244.59	253.39	1.8436	1.8216	3.0199	3.0199
2027	07	45.413	56.012	44.45	51.232	0	0	28.975	28.842	10.841	11.043	217.92	219.59	2.1427	2.5513	3.0422	3.0422
2027	08	74.869	71.903	61.132	61.774	0	0	27.542	27.365	10.647	10.187	219.09	222.4	3.5579	3.2511	2.5214	2.5214
2027	09	37.122	27.541	36.857	33.309	0	0	24.603	24.908	6.2526	6.1387	227.21	228.81	2.3111	2.0145	2.5071	2.5071
2027	10	33.904	33.349	21.732	21.445	0	0	19.12	19.887	0.28944	0.80698	226.17	221.61	3.2189	2.918	2.5871	2.5871
2027	11	36.821	39.435	13.69	13.922	0.23511	0.10289	10.761	11.091	-5.9452	-5.5014	235.76	231.22	2.9922	2.8861	2.8712	2.8712
2027	12	24.079	32.001	9.2361	9.7374	4.7693	7.4152	5.7589	5.2273	-9.7036	-9.8296	249.22	244.64	2.4385	2.4146	2.9989	2.9989
2028	01	29.827	27.518	10.158	10.677	9.7619	18.211	4.7367	4.9651	-10.69	-10.521	256.76	253.51	2.4222	2.5135	3.1843	3.1843
2028	02	23.817	30.554	12.481	13.525	18.747	24.093	7.37	7.2286	-9.0191	-7.6804	264.39	262.13	3.0888	3.3142	2.9464	2.9464
2028	03	40.358	47.632	27.061	24.273	17.625	26.265	12.039	11.044	-5.1124	-5.5298	274.94	275.28	6.417	7.3961	3.1878	3.1878
2028	04	22.616	23.359	42.303	42.938	9.1518	18.262	16.728	16.444	-1.473	-1.6116	290.38	298.37	6.397	7.4178	3.328	3.328
2028	05	21.738	19.348	55.059	61.108	0	0.50467	22.145	22.149	2.8794	3.0666	271.91	287.79	2.5457	3.4978	3.0285	3.0285
2028	06	23.064	19.228	43.264	47.742	0	0	27.35	27.611	7.5866	7.5015	236.31	242.89	1.7712	1.689	3.0192	3.0192
2028	07	44.189	46.45	42.07	42.904	0	0	29.193	29.316	10.993	11.144	214.83	214.21	2.0925	2.1591	2.9854	2.9854
2028	08	63.3	67.526	54.681	55.073	0	0	27.703	27.843	10.168	10.514	215.62	216.2	2.857	3.1016	2.6434	2.6434
2028	09	33.776	34.282	33.527	33.429	0	0	24.682	24.556	6.0881	6.1808	220.76	224.74	2.1112	2.4247	2.58	2.58
2028	10	41.458	35.267	24.676	23.637	0	0	18.67	19.641	0.39562	0.94456	220.61	223.33	3.2299	2.9266	2.6989	2.6989
2028	11	43.626	29.424	14.989	13.259	0.40156	0.22733	10.794	11.451	-5.7162	-5.6496	233.96	232.61	3.5889	2.6688	3.018	3.018
2028	12	23.206	22.484	8.8038	9.4515	5.7707	2.3994	5.2643	6.2436	-10.014	-9.3104	251.4	242.61	2.7526	2.2751	3.0625	3.0625
2029	01	41.341	42.902	10.481	11.186	12.209	7.5568	4.6386	4.7384	-10.946	-10.199	258.26	249.49	3.0723	2.6814	3.209	3.209
2029	02	24.815	27.073	12.884	12.904	27.479	23.599	7.7497	7.5439	-8.1128	-8.1575	268.65	261.14	3.8697	3.1843	2.9409	2.9409
2029	03	32.769	41.791	22.969	25.193	24.786	23.271	11.063	11.416	-5.6853	-5.4609	280.64	273.89	6.8771	6.7329	3.3224	3.3224
2029	04	26.965	25.976	42.867	42.649	13.967	14.239	16.841	16.612	-1.3982	-1.5201	293.31	291.68	9.1991	8.2917	3.3157	3.3157
2029	05	23.678	23.448	60.5	58.673	0.341	0.71856	21.601	21.548	2.749	2.6985	281.38	279.38	3.755	3.9651	3.0875	3.0875
2029	06	22.336	24.714	47.675	48.333	0	0	27.322	27.185	7.3295	7.5603	241.38	240.73	1.7767	1.892	3.0872	3.0872
2029	07	52.937	47.622	47.167	44.801	0	0	28.859	29.232	10.699	10.885	215.28	216.25	2.3769	2.2424	3.1166	3.1166
2029	08	66.593	71.668	57.294	57.762	0	0	27.506	27.917	10.416	10.318	218.49	218.38	3.083	3.4908	2.5448	2.5448
2029	09	34.539	34.146	35.35	35.737	0	0	24.699	24.886	6.2318	6.2846	224.72	227.09	2.1618	2.294	2.5635	2.5635
2029	10	41.522	29.875	25.772	21.634	0	0	19.611	19.042	0.66013	0.38953	222.3	224.39	3.3435	2.6124	2.7556	2.7556
2029	11	34.324	27.227	14.418	12.503	0.29556	0.11689	11.495	10.903	-5.3561	-5.6232	235.49	230.38	3.0812	2.4134	2.9248	2.9248
2029	12	36.17	24.267	11.011	9.0516	3.2757	2.429	5.7542	5.1555	-9.8479	-10.255	247.5	238.71	2.933	2.1437	3.1894	3.1894
2030	01	36.889	39.558	10.346	10.505	14.789	10.123	4.758	4.4704	-10.418	-10.62	259.01	245.09	2.8747	2.7319	3.0664	3.0664
2030	02	26.432	24.811	12.317	12.569	27.92	23.536	7.1377	6.8489	-8.4108	-8.6167	267.91	256.85	3.6095	2.9277	3.0988	3.0988
2030	03	43.286	36.077	24.755	22.323	25.398	23.255	11.428	10.854	-5.2749	-5.2587	281.86	267.67	7.2141	5.9726	3.345	3.345
2030	04	26.1	28.174	46.503	41.14	11.41	13.606	16.715	16.255	-1.3353	-1.4741	300.38	285.31	6.9996	6.9991	3.1519	3.1519
2030	05	26.811	25.285	65.708	58.97	0	0.59311	22.401	21.88	3.347	3.118	282.96	275.97	2.8956	3.1421	3.0235	3.0235
2030	06	23.947	23.976	48.258	47.686	0	0	27.147	27.49	4.7674	7.8142	241.44	240.19	1.8144	1.9169	2.8138	2.8138
2030	07	54.035	45.21	48.687	43.084	0	0	29.022	29.542	11.085	11.164	216.15	215.19	2.3914	2.1277	2.9784	2.9784
2030	08	72.625	65.347	59.43	54.138	0	0	27.39	28.051	10.286	10.703	220.73	216.32	3.5366	3.1299	2.553	2.553
2030	09	37.577	32.775	36.899	34.048	0	0	24.024	25.156	6.0255	6.4363	228.79	224.05	2.4592	2.1389	2.4182	2.4182
2030	10	41.494	33.252	24.446	22.856	0	0	18.752	19.559	0.40825	0.60259	227.78	220.49	3.6387	2.6672	2.7468	2.7468
2030	11	38.386	41.398	13.446	15.891	0.94644	0.051556	10.289	11.448	-6.0624	-5.3716	241.75	229.87	3.0609	3.4059	2.9876	2.9876
2030	12	33.508	28.584	9.97	9.2165	7.1323	2.2912	5.8831	6.0975	-9.989	-9.344	255	247.38	2.933	2.3424	3.0938	3.0938
2031	01	38.037	35.129	10.951	10.246	16.334	13.175	5.158	4.4396	-10.008	-10.733	266.73	255.14	3.331	2.6294	3.1045	3.1045
2031	02	27.047	21.992	11.859	12.381	28.489	23.839	7.1052	7.8452	-8.545	-8.2428	277.99	264.52	3.069	2.8978	2.9797	2.9797
2031	03	36.774	33.198	24.574	24.371	28.036	21.267	10.935	11.395	-5.2943	-5.5765	290.53	274.07	7.5666	5.7981	3.1552	3.1552
2031	04	22.174	28.134	45.815	43.709	16.849	11.464	16.664	16.839	-1.482	-1.2028	305.77	287.79	9.7255	7.137	3.2143	3.2143
2031	05	25.913	25.904	63.838	58.41	1.1538	0.404	21.47	21.507	2.6594	2.7866	287.56	275.73	4.2149	3.763	3.02	3.02
2031	06	18.095	29.396	47.585	49.959	0	0	27.184	27.15	7.18	7.5319	246.7	239.23	1.7244	1.9921	2.9589	2.9589
2031	07	41.969	49.971	41.38	47.383	0	0	29.405	29.246	10.846	11.076	216.2	216.9	2.0626	2.2546	3.0327	3.0327
2031	08	69.348	58.008	58.275	52.533	0	0	27.838	28.261	10.453	10.66	216.2	218.38	2.9634	2.719	2.5631	2.5631
2031	09	32.023	33.822	32.688	33.733	0	0	24.944	25.159	6.1242	6.6569	223.23	220.22	2.1372	2.1922	2.5419	2.5419
2031	10	41.358	39.921	22.364	23.891	0	0	19.509	19.499	0.40908	0.98593	220.67	219.24	3.5798	3.4055	2.7179	2.7179
2031	11	38.244	35.837	14.082	13.89	0.14878	0.0078889	11.137	11.049	-5.4155	-5.4867	238.02	232.51	3.3409	2.862	2.9788	2.9788
2031	12	28.789	24.023	9.137	8.8223	4.0082	4.9558	5.61	5.676	-9.9058	-9.9902	252.6	244.91	2.7057	2.2565	3.041	3.041
2032	01	41.801	45.337	10.932	11.043	11.971	13.613	4.5533	4.426	-10.295	-10.572	261.39	251.57	2.8734	2.7436	3.3601	3.3601
2032	02	27.365	27.9	13.026	13.176	28.732	30.609	7.2955	7.0104	-8.2921	-8.753	271.3	263.25	3.9068	3.1926	3.0344	3.0344
2032	03	40.483	37.703	26.843	24.313	26.88	30.143	11.525	10.96	-5.0185	-5.516	285.32	276.14	9.3482	6.8321	3.2734	3.2734
2032	04	30.613	27.995	46.078	42.356	11.988	16.559	16.658	16.224	-1.6073	-1.5806	303.96	297.61	9.5692	9.8721	3.2161	3.2161
2032	05	20.056	26.861	61.176	65.147	0.69022	0.97367	21.894	21.911	2.9813	3.2278	289.56	286.51	4.2352	4.3632	2.9244	2.9244
2032	06	25.06	25.242	49.897	51.164	0	0	27.084	26.841	7.228	7.3862	244.81	244.73	1.901	1.8948	3.2214	3.2214
2032	07	46.233	54.385	45.499	50.062	0	0	29.069	29.162	10.701	11.072	218.56	218.44	2.2075	2.4409	2.9276	2.9276
2032	08	66.398	63.975	57.535	56.812	0	0	27.886	28.019	10.49	10.465	219.69	220.65	3.0064	2.9205	2.4982	2.4982
2032	09	34.519	36.967	35.416	35.809	0	0	24.667	24.815	6.2373	6.4703						

2035	03	31.592	40.386	23.344	23.643	19.538	22.661	11.887	11.839	-5.1379	-4.9821	267.07	271.01	4.5039	7.484	3.3219	3.3219
2035	04	20.831	24.614	38.424	42.527	13.203	14.065	16.836	17.211	-1.6644	-1.2322	277.43	288.92	5.4957	7.752	3.2397	3.2397
2035	05	18.581	26.414	52.173	59.879	0.46567	0.57111	22.375	22.388	3.2453	3.6004	265.61	275.6	2.7898	3.1902	2.8862	2.8862
2035	06	25.841	18.701	42.865	43.989	0	0	27.445	27.871	7.8051	7.9723	230.23	239.39	1.7635	1.6829	2.9508	2.9508
2035	07	51.238	49.957	44.998	45.231	0	0	29.38	29.43	11.173	11.094	213.75	213.27	2.2594	2.2721	2.9729	2.9729
2035	08	69.83	62.49	58.57	54.659	0	0	27.954	28.338	10.695	10.86	217.45	217.41	3.2297	3.0053	2.7827	2.7827
2035	09	27.009	43.048	31.662	38.674	0	0	25.582	24.945	6.4404	6.8832	223.57	220.4	2.03	2.4787	2.5631	2.5631
2035	10	31.05	52.867	22.321	25.468	0	0	20.334	18.877	1.0163	1.178	217.86	223.53	2.4678	4.2095	2.7875	2.7875
2035	11	37.64	40.07	12.292	14.595	0.14589	1.246	11.001	11.557	-5.8037	-5.0886	224.73	245.77	3.2011	3.6838	2.9496	2.9496
2035	12	30.857	26.608	9.1417	9.9839	5.4866	6.3423	5.3402	6.1539	-9.7179	-8.9981	239.94	260.78	2.3706	2.85	3.1898	3.1898
2036	01	42.401	36.014	10.893	9.8578	17.438	10.727	4.8304	4.9178	-10.484	-10.123	248.15	270.35	2.8034	2.9346	3.0275	3.0275
2036	02	32.281	32.406	13.809	14.606	32.693	23.605	7.2999	6.7316	-7.7015	-8.2306	260.25	279.74	3.493	3.7319	3.1472	3.1472
2036	03	38.909	36.128	23.686	26.121	34.188	26.512	11.542	11.596	-4.851	-4.9341	274.15	292.81	6.7111	8.1091	3.1789	3.1789
2036	04	23.056	26.581	44.295	48.311	19.661	11.047	17.743	16.996	-1.0589	-1.3613	295.81	309.38	10.49	8.8954	3.2962	3.2962
2036	05	24.094	21.536	62.055	64.317	0.262	0.67978	22.416	21.91	3.5626	3.049	282.89	287.94	3.714	3.7149	2.946	2.946
2036	06	18.432	25.184	46.346	49.92	0	0	27.547	27.34	7.834	8.0338	241.88	242.61	1.6798	1.7193	3.095	3.095
2036	07	53.995	52.58	47.633	47.736	0	0	29.264	29.314	11.348	11.383	213.23	216.63	2.3605	2.3418	3.0595	3.0595
2036	08	71	75.28	58.569	62.778	0	0	27.728	27.952	10.548	10.791	217.86	219.89	3.3067	3.3597	2.5515	2.5515
2036	09	35.42	40.552	36.68	39.886	0	0	24.871	24.739	6.4523	6.5168	226.95	227.89	2.2186	2.5762	2.5285	2.5285
2036	10	44.506	42.796	24.912	28.227	0	0	18.957	19.114	0.84543	0.89285	224.83	228.33	3.8438	3.5299	2.7036	2.7036
2036	11	44.729	38.267	13.761	13.856	0.089444	0.59722	10.682	10.891	-5.6162	-5.4323	240.14	237.71	3.7242	2.9969	2.9097	2.9097
2036	12	28.761	25.105	9.0163	9.0109	7.4202	7.0866	5.3556	5.7323	-9.4207	-9.397	258.17	250.83	2.8812	2.5353	2.9718	2.9718
2037	01	46.199	40.118	10.655	11.754	14.816	13.738	4.1357	4.8652	-10.965	-10.609	268.14	259.45	3.041	2.7933	3.2178	3.2178
2037	02	27.135	25.745	12.827	13.345	34.245	26.533	7.1208	8.248	-8.2356	-7.649	279.47	270.75	3.6417	3.6809	3.1586	3.1586
2037	03	39.387	39.606	26.163	27.062	36.403	21.696	11.595	11.42	-4.9249	-4.9714	292.23	284.59	10.143	7.0809	3.1095	3.1095
2037	04	30.462	20.705	47.115	45.236	15.674	11.082	16.474	17.137	-1.4037	-1.1935	314.25	301.49	11.641	7.1187	3.2305	3.2305
2037	05	22.367	20.424	67.359	60.229	1.0403	0.58533	21.939	22.372	3.1401	3.1832	298.77	278.37	4.6424	2.9354	2.9705	2.9705
2037	06	20.225	19.129	51.268	41.855	0	0	27.59	27.911	7.4895	7.7904	249.87	236.86	1.8114	1.7042	3.0084	3.0084
2037	07	46.404	50.46	44.576	43.918	0	0	29.523	29.508	11.216	11.49	217.93	212.99	2.1688	2.3149	2.9951	2.9951
2037	08	66.207	61.23	56.767	54.654	0	0	27.999	28.653	10.648	10.797	219.22	218.4	2.9122	2.8128	2.6818	2.6818
2037	09	37.515	32.817	37.269	32.961	0	0	24.901	25.427	6.7469	6.6941	224.49	221.22	2.2347	2.0942	2.5283	2.5283
2037	10	29.687	37.017	22.143	23.722	0	0	19.292	20.004	0.76722	1.1658	223.13	219.82	2.5332	3.1655	2.7134	2.7134
2037	11	34.766	42.103	13.528	15.704	0.24889	0.0058889	11.407	11.248	-5.564	-5.2343	228.62	229.28	2.7162	3.173	2.9844	2.9844
2037	12	27.942	26.468	9.7547	9.5038	5.0607	4.9746	5.0137	6.2735	-9.8805	-8.8198	240.55	246.28	2.1066	2.3393	3.1026	3.1026
2038	01	46.862	41.085	11.131	10.598	16.266	12.748	3.647	3.0582	-11.404	-9.5915	247.48	254.19	2.6945	2.0655	3.0984	3.0984
2038	02	24.099	27.824	12.179	13.719	35.796	25.042	7.187	7.6447	-8.5791	-8.1496	258.13	267.49	3.0626	3.6441	3.1108	3.1108
2038	03	44.253	42.24	23.579	26.58	35.24	22.362	11.119	11.656	-5.1779	-5.0152	270.05	282.16	7.8302	6.8254	3.2031	3.2031
2038	04	26.216	29.633	44.441	46.79	17.272	10.851	16.636	17.208	-1.5253	-0.80805	299.4	302.76	9.0682	8.6898	3.3436	3.3436
2038	05	22.749	21.188	64.258	64.101	0.23644	0.074778	22.318	22.276	3.4227	3.2979	287.85	286.23	3.152	3.2161	2.9308	2.9308
2038	06	24.373	22.21	50.73	46.525	0	0	27.445	27.815	7.5908	8.0092	243.48	240.23	1.8888	1.8265	3.0821	3.0821
2038	07	50.907	52.278	46.696	46.615	0	0	29.469	29.576	11.246	11.554	216.73	214.87	2.3205	2.3133	2.9582	2.9582
2038	08	60.557	69.199	53.648	58.826	0	0	28.231	27.991	10.704	10.744	219.69	219.62	2.8383	3.1248	2.624	2.624
2038	09	26.161	32.819	30.161	34.804	0	0	25.26	25.58	6.4163	7.0428	222.3	225.46	1.8775	2.0985	2.5497	2.5497
2038	10	31.249	45.772	19.922	25.721	0	0	19.719	19.092	0.62893	1.2202	217.01	221.91	2.6415	2.7951	2.7323	2.7323
2038	11	32.024	34.075	13.165	13.276	0.28911	0.032444	12.035	11.46	-5.0598	-5.1761	227.07	240.69	2.7936	3.3047	2.9652	2.9652
2038	12	25.377	28.014	9.1109	10.13	2.824	2.4613	6.2074	6.3435	-9.3878	-8.9114	238.48	252.97	3.2024	4.4244	3.0523	3.0523
2039	01	29.586	36.122	10.205	9.4161	10.504	10.118	4.8803	5.154	-10.636	-10.186	245.65	260.65	2.3626	2.9474	2.9898	2.9898
2039	02	18.919	24.434	11.532	12.778	19.45	21.479	8.0864	7.7179	-8.1694	-7.8175	252.46	271.91	2.6391	3.3182	3.1101	3.1101
2039	03	36.022	45.135	23.748	25.796	17.331	20.696	11.614	11.261	-5.2621	-5.2581	262.03	4.6825	6.509	3.1442	3.1442	
2039	04	23.846	25.846	40.007	45.565	11.744	14.916	17.257	17.07	-1.1842	-0.94371	273.43	300.41	4.932	8.8218	3.3253	3.3253
2039	05	19.558	22.39	51.548	63.953	0.244	1.0302	22.354	22.578	3.2766	3.5428	262.43	284.79	2.2881	3.7556	3.0192	3.0192
2039	06	24.111	27.439	40.245	50.502	0	0	27.655	27.753	7.7869	7.9886	228.64	240.93	1.7044	1.9596	2.8457	2.8457
2039	07	53.526	47.599	46.988	44.346	0	0	29.515	29.807	11.384	11.383	212.78	216.72	2.3356	2.2443	3.0079	3.0079
2039	08	68.097	69.49	57.093	59.389	0	0	28.039	28.46	10.627	10.956	216.85	219.28	3.1116	3.1722	2.6321	2.6321
2039	09	33.264	35.037	36.014	36.676	0	0	25.328	25.203	6.8275	6.5525	223.43	225.01	2.0605	2.1548	2.61	2.61
2039	10	33.793	45.316	20.32	26.827	0	0	19.541	19.282	0.65622	1.3007	219.69	222.5	2.9182	3.3046	2.743	2.743
2039	11	36.549	35.949	13.769	15.309	0.29289	2.516	10.816	11.605	-5.9045	-4.993	331.25	234.38	3.0285	2.223	2.9009	2.9009
2039	12	28.073	19.257	10.071	8.8062	4.6933	4.066	5.7741	6.6445	-9.8122	-8.7808	244.27	249.14	2.299	3.3338	3.1016	3.1016
2040	01	38.17	37.421	10.566	10.544	13.067	7.2579	4.5946	5.8389	-10.601	-9.4562	251.7	254.4	2.7358	2.8852	3.0275	3.0275
2040	02	24.679	27.351	13.528	14.2	25.283	19.159	7.4967	7.6027	-7.9249	-7.6007	263.13	266.3	3.284	3.0577	3.0296	3.0296
2040	03	37.857	40.782	24.595	25.26	23.084	19.579	11.575	11.531	-5.0326	-5.2736	274.73	276.7	6.7959	5.886	3.1602	3.1602
2040	04	20.395	28.384	41.98	45.703	12.511	12.28	16.848	17.435	-1.4703	-1.3879	290.77	292.94	6.2856	7.563	3.2385	3.2385
2040	05	22.787	26.075	58.602	61.604	0.27944	0.14678	21.964	22.187	3.2289	3.32	274.7	279.35	2.7516	3.1626	2.9835	2.9835
2040	06	23.643	20.926	44.838	45.587	0	0	27.535	27.85	7.8666	7.8985	236.65	241.42	1.8284	1.8198	3.0554	3.0554
2040	07	48.515	48.495	44.586	44.386	0	0	29.476	29.								

2043	01	37.769	51.597	10.01	11.159	13.463	12.735	4.8194	5.0203	-10.475	-9.7282	260.74	258.27	3.0909	3.5663	3.0514	3.0514
2043	02	31.199	27.964	13.121	13.572	26.919	30.28	7.5551	7.5355	-7.901	-7.7588	271.58	274.66	4.1243	3.6584	3.101	3.101
2043	03	41.792	39.317	27.796	26.882	25.976	29.728	11.972	11.656	-4.5571	-4.8789	287.19	286.99	8.2418	8.3491	3.2316	3.2316
2043	04	31.743	23.693	48.653	46.145	12.571	15.348	17.211	17.364	-0.99023	-1.1869	307.09	306.53	11.314	8.7837	3.3679	3.3679
2043	05	25.354	24.474	64.653	65.604	0.15267	1.473	22.171	22.435	3.3773	3.7797	288.77	286.75	4.6825	4.6825	2.9416	2.9416
2043	06	23.86	20.082	51.517	45.919	0	0	27.375	28.107	7.8539	8.1244	246.71	242.33	1.852	1.731	3.049	3.049
2043	07	49.097	47.351	47.208	42.727	0	0	29.659	29.951	11.564	11.73	218.4	215.6	2.242	2.2697	3.031	3.031
2043	08	66.726	55.582	56.293	50.337	0	0	27.916	28.785	10.728	10.834	219.19	219.03	3.1584	2.7785	2.6292	2.6292
2043	09	36.132	32.428	36.98	32.941	0	0	25.132	25.693	6.4076	6.8775	225.2	220.46	2.2792	2.0725	2.7144	2.7144
2043	10	30.582	35.112	22.634	22.058	0	0	20.494	20.334	1.0748	1.2946	222.95	218.99	2.6422	2.9898	2.7719	2.7719
2043	11	39.695	36.779	14.245	12.981	0.13333	0.0068889	11.048	11.572	-5.4489	-5.2804	228.64	229.9	2.9329	3.1278	2.9919	2.9919
2043	12	33.897	23.576	10.638	8.6756	6.3112	5.4862	5.4155	6.2964	-9.8454	-9.1206	243.59	243.42	2.4962	2.3146	2.9897	2.9897
2044	01	40.751	42.801	10.422	10.956	17.878	11.725	4.874	5.1876	-10.108	-10.132	253.36	251.18	2.7386	2.7491	3.1767	3.1767
2044	02	24.116	28.173	12.956	13.305	33.157	27.48	8.0694	7.765	-7.4092	-7.585	264.52	262.42	3.8621	3.4629	2.9933	2.9933
2044	03	45.528	40.851	26.634	24.177	25.689	27.186	11.564	11.927	-4.7549	-4.8786	280.2	275.5	8.9474	8.1282	3.1377	3.1377
2044	04	32.325	25.505	44.335	43.023	16.737	14.239	16.781	17.06	-1.2124	-0.98859	300.59	295.71	10.936	9.463	3.1854	3.1854
2044	05	25.756	25.912	65.941	60.965	0.57089	1.583	21.963	22.348	3.5889	3.5095	291.28	280.74	4.1555	4.9858	2.9963	2.9963
2044	06	25.879	22.452	54.22	47.291	0	0	27.115	27.833	7.388	7.9477	247.38	243.07	1.968	1.9615	3.1282	3.1282
2044	07	42.884	43.825	43.001	42.067	0	0	29.674	30.13	11.019	11.913	218.02	216.3	2.1297	2.1598	3.0788	3.0788
2044	08	70.873	67.429	58.032	57.507	0	0	28.003	28.838	10.62	11.326	216.34	217.64	3.2829	3.1189	2.5573	2.5573
2044	09	35.391	32.417	37.024	34.502	0	0	25.146	25.67	6.5483	7.2631	225.08	223.31	2.1937	2.0976	2.5743	2.5743
2044	10	46.137	33.603	25.256	22.604	0	0	19.115	20.347	0.73042	1.6452	222.04	221.19	3.7722	3.0032	2.662	2.662
2044	11	45.821	39.326	14.835	14.18	0.20089	0.061333	10.753	11.858	-5.6522	-4.5298	240.23	228.63	3.4149	3.3382	2.8635	2.8635
2044	12	26.508	25.902	9.1672	9.3571	8.8609	3.1356	5.2528	6.0665	-9.5647	-8.9238	256.53	245.62	2.4335	2.4211	3.0587	3.0587
2045	01	39.396	37.942	10.648	9.8954	17.653	9.9079	5.1514	5.3012	-9.5948	-9.9823	264.49	253.68	2.9937	2.6734	3.0587	3.0587
2045	02	20.815	27.811	12.921	14.42	32.127	23.761	8.0278	7.9662	-7.8732	-7.588	274.01	264.08	3.0383	3.4043	3.1055	3.1055
2045	03	41.284	38.437	24.949	26.369	31.138	22.505	11.452	11.958	-4.8814	-4.5035	281.42	275.97	8.3339	6.9291	3.3295	3.3295
2045	04	25.899	32.271	43.403	46.338	16.732	10.24	16.464	17.27	-1.5955	-0.8228	302.31	293.88	10.872	7.3525	3.275	3.275
2045	05	24.264	25.852	63.62	62.593	0.44311	0.16067	21.943	22.368	3.0802	3.6041	289.77	280.94	4.0916	3.0497	3.0254	3.0254
2045	06	21.377	18.469	50.311	45.444	0	0	28.031	28.341	7.9701	8.3155	247.14	241.23	1.8152	1.6867	3.0558	3.0558
2045	07	46.888	54.998	44.331	46.985	0	0	29.798	29.747	11.46	11.783	217.11	214	2.2098	2.4785	3.1025	3.1025
2045	08	65.913	65.539	56.785	57.608	0	0	28.506	28.639	10.921	11.092	218.52	220.53	3.0872	3.3151	2.584	2.584
2045	09	27.443	39.369	30.978	35.166	0	0	26.424	25.311	6.9263	7.2962	223.73	223.29	1.9611	2.5638	2.4405	2.4405
2045	10	30.126	35.544	22.147	24.914	0	0	20.346	20.366	1.2812	1.5817	219.42	226.04	2.37	3.15	2.815	2.815
2045	11	38.132	33.667	14.464	13.752	0.0062222	0.17311	11.632	11.485	-5.3866	-4.7758	224.93	234.53	3.1784	2.9328	2.9304	2.9304
2045	12	19.345	26.83	8.4629	10.118	3.1518	3.2666	5.6827	6.8507	-9.9542	-8.8301	240.69	246.21	1.9356	2.4595	3.062	3.062
2046	01	28.341	36.138	9.2592	10.437	9.2622	9.9819	5.3358	5.3002	10.834	9.6058	244.44	254.24	2.2878	3.0146	3.1693	3.1693
2046	02	25.776	25.733	13.589	14.012	17.34	20	8.0617	7.9223	-7.9384	-7.2488	252.26	265.86	3.0966	3.3527	3.0494	3.0494
2046	03	31.762	45.286	24.103	27.1	15.239	19.359	12.265	11.365	-4.8786	-4.9272	263.98	276.52	4.816	6.2095	3.1806	3.1806
2046	04	25.768	22.1	39.738	45.12	7.2716	13.931	17.205	17.673	-1.5757	-0.86276	275.48	293.65	6.0239	9.1796	3.1285	3.1285
2046	05	22.485	25.576	50.328	59.818	0.704	0.029333	22.387	22.89	3.3275	3.9628	260.33	274.62	2.9458	3.4632	3.0577	3.0577
2046	06	21.699	22.202	37.672	43.432	0	0	28.379	28.212	8.3854	8.4123	230.43	236.27	1.7439	1.791	3.0885	3.0885
2046	07	44.188	51.716	40.784	46.511	0	0	29.987	29.914	11.713	11.685	213.61	214.75	2.1623	2.3344	3.0139	3.0139
2046	08	68.096	67.643	57.174	58.601	0	0	28.089	28.594	10.565	11	215.56	217.96	3.0324	3.1152	2.5747	2.5747
2046	09	27.734	37.068	31.76	35.953	0	0	25.947	25.545	6.9919	7.495	222.19	222.54	1.9249	2.36	2.5557	2.5557
2046	10	27.44	37.854	19.943	24.591	0	0	20.076	20.028	0.82367	1.6114	217.43	222.91	2.4797	3.1237	2.6376	2.6376
2046	11	47.298	39.118	14.28	14.867	0.38967	0.052111	11.114	11.466	-5.5107	-5.1444	222.82	233.62	3.4574	3.3411	2.9622	2.9622
2046	12	24.77	26.34	10.577	10.287	8.0318	4.4586	6.8816	7.0205	-8.9594	-8.5881	242.5	247.99	2.5781	2.3975	3.1588	3.1588
2047	01	30.445	42.98	10.405	11.559	11.415	12.119	5.1172	5.173	-10.246	-9.8208	251.27	255.65	2.6357	2.9872	3.212	3.212
2047	02	18.636	23.312	12.275	12.974	18.809	27.334	8.3172	8.2167	-8.1491	-7.4773	260.51	266.58	2.8998	3.8789	2.958	2.958
2047	03	39.907	36.58	26.535	26.826	16.035	22.679	11.979	12.309	-4.7976	-4.5299	267.51	279.2	5.8356	8.2029	3.2367	3.2367
2047	04	28.161	24.308	43.88	45.693	7.2323	9.7833	16.908	17.788	-1.3691	-0.76848	283.73	294.52	5.4597	7.2272	3.2931	3.2931
2047	05	19.123	25.2	55.554	59.143	0.14856	0.28533	22.893	22.677	3.6083	3.6984	268.92	272.65	2.2714	3.2066	2.9442	2.9442
2047	06	21.502	21.46	39.978	43.903	0	0	28.567	28.291	8.0868	8.4517	230.68	236.82	1.7306	1.7435	3.0509	3.0509
2047	07	50.002	48.453	44.108	42.997	0	0	29.634	30.428	11.52	12.148	211.29	212.66	2.2454	2.2459	3.0315	3.0315
2047	08	68.349	61.971	57.267	54.818	0	0	28.564	29.174	11.09	11.737	216.06	217.17	3.3376	2.8662	2.6072	2.6072
2047	09	38.357	40.046	37.941	35.97	0	0	25.619	25.297	7.3087	7.5071	222.31	220.61	2.253	2.4477	2.5201	2.5201
2047	10	43.144	21.572	26.565	19.663	0	0	18.892	20.762	1.0515	1.7951	221.21	222	3.3999	2.0833	2.7224	2.7224
2047	11	37.275	39.959	14.136	15.177	0.012556	0.053778	12.052	11.723	-4.9472	-4.4863	235.16	223.23	3.4233	3.0085	2.9129	2.9129
2047	12	25.099	29.06	9.4731	9.9806	2.8682	4.1558	6.2996	6.4201	-8.9758	-8.4508	250.43	239.16	2.484	2.4489	3.0229	3.0229
2048	01	29.026	40.781	9.5568	10.243	9.1286	11.226	5.7249	5.4447	-9.9445	-9.6058	258.22	248.63	2.5881	2.6918	2.9758	2.9758
2048	02	29.992	31.055	13.82	13.666	16.602	27.143	6.9833	6.0486	-8.6835	-6.9942	266.5	260.51	3.1687	3.8782	3.0386	3.0386
2048	03	37.427	41.021	26.756	25.543	19.677	25.51	12.295	11.854	-4.2159	-4.5868	278.08	277.12	7.9701	7.1829	3.1993	3.1993
2048	04	27.874	30.929	44.518	46.429	6.9923	12.618	17.056	17.467	-1.4113	-0.66845	291.73	296.57	7.3316	9.5691	3.3677	3.3677
2048	05	24.087	24.445	57.987	63.522	0.											

2058	09	34.196	36.318	35.2	34.861	0	0	25.716	26.477	7.3968	8.2624	220.67	216.84	2.1135	2.1648	2.6063	2.6063
2058	10	30.325	41.834	21.194	26.875	0	0	20.478	21.074	1.1762	2.5152	218.28	217.94	2.7082	2.9971	2.755	2.755
2058	11	39.889	36.868	15.334	15.386	0.023444	0.050667	12.107	12.964	-4.9318	-4.0409	225.61	230.25	3.1306	3.1316	2.9622	2.9622
2058	12	19.775	22.942	8.9363	9.1881	4.5029	3.2946	6.6173	7.9297	-8.9329	-7.8881	240.91	243.29	2.3484	2.2831	3.3213	3.3213
2059	01	34.505	40.688	10.43	12.196	7.4946	9.7072	5.6122	6.4143	-9.7935	-8.685	247.11	249.01	2.9447	3.411	3.231	3.231
2059	02	32.813	28.351	14.077	14.091	17.173	17.07	8.5117	8.7688	-7.4316	-6.4206	257.74	266.01	3.9802	3.9725	2.923	2.923
2059	03	36.992	36.851	24.551	29.187	19.601	12.742	12.266	13.07	-4.5137	-3.7298	270.08	280.6	7.0493	6.8243	3.1625	3.1625
2059	04	21.095	25.26	41.786	46.446	11.505	4.5009	17.677	18.25	-1.0207	-0.19119	285.01	290.26	6.34	5.9381	3.2013	3.2013
2059	05	25.598	21.929	57.005	55.092	0.59167	0.00033333	22.536	23.725	3.6971	4.2128	267.14	266.35	2.8688	2.647	2.9915	2.9915
2059	06	22.657	26.114	43.039	41.015	0	0	28.405	29.193	8.4298	9.3564	233.22	231.01	1.7271	2.0084	3.0166	3.0166
2059	07	46.3	50.754	42.177	45.987	0	0	30.037	30.923	11.71	12.577	212.53	214.73	2.1443	2.2909	2.9652	2.9652
2059	08	66.151	64.61	56.11	56.798	0	0	28.605	29.525	10.717	12.134	215	217.65	2.9205	2.8544	2.5075	2.5075
2059	09	38.055	43.226	38.101	40.637	0	0	25.441	25.978	7.1095	8.2126	220.98	221.96	2.2222	2.3997	2.5432	2.5432
2059	10	44.133	35.328	26.069	24.986	0	0	19.67	21.049	1.406	2.5222	220.42	222.85	3.4589	3.0601	2.7422	2.7422
2059	11	31.677	27.02	13.713	14.861	0.21511	0.061111	11.717	12.985	-5.0559	-3.7161	234.03	230.23	2.9077	2.702	2.8462	2.8462
2059	12	21.236	28.377	8.8325	9.8389	3.8691	1.8744	7.2745	7.2502	-8.406	-8.0326	244.82	237.87	2.3285	2.6623	3.0252	3.0252
2060	01	49.166	35.405	11.35	11.262	8.424	8.134	5.187	7.0039	-9.4734	-8.2712	252.31	247.32	3.5223	3.5424	3.2221	3.2221
2060	02	31.231	29.097	13.223	15.628	22.578	13.317	7.8414	9.0336	-7.9294	-6.6329	269.38	261.62	3.7907	4.3244	2.9878	2.9878
2060	03	47.171	38.917	27.218	28.798	24.382	12.04	11.648	12.752	-4.7635	-3.9556	283.65	273.59	8.751	6.8965	3.2538	3.2538
2060	04	28.574	29.7	48.652	45.333	11.948	6.6736	17.218	18.311	-0.99337	-0.1162	305.93	282.56	9.0913	5.8938	3.3172	3.3172
2060	05	25.528	25.005	64.654	55.998	0.036778	0.12911	22.547	23.599	3.8271	4.5159	288.07	265.16	3.4363	2.5176	2.9342	2.9342
2060	06	22.106	15.543	50.52	36.766	0	0	27.995	29.349	4.3855	9.117	245.72	232.17	1.8423	1.5873	3.0777	3.0777
2060	07	43.71	47.642	42.23	41.699	0	0	29.935	30.95	11.583	12.52	216.2	210.29	2.1348	2.2088	3.0037	3.0037
2060	08	68.943	66.556	57.516	58.046	0	0	28.593	29.481	11.311	11.779	216.78	214.31	3.1058	2.9068	2.652	2.652
2060	09	32.153	33.938	33.022	34.308	0	0	25.793	26.817	6.7933	8.3293	223.62	219.06	2.2559	2.2148	2.5155	2.5155
2060	10	35.644	40.757	21.412	25.431	0	0	20.341	21.257	1.6082	2.6486	221.28	217.67	3.1797	3.275	2.7776	2.7776
2060	11	40.726	44.657	15.406	15.762	0.070667	0.099111	11.211	12.305	-4.8896	-4.1713	234.37	232.09	3.3304	3.6967	2.974	2.974
2060	12	26.65	29.098	9.5934	10.806	4.6629	5.156	6.5292	6.8722	-8.7483	-8.1759	248.9	248.9	2.4547	2.9226	3.181	3.181
2061	01	33.61	38.445	11.274	9.7257	12.053	9.8271	5.6391	6.789	-9.6949	-8.615	257.02	259.8	2.8959	3.5758	2.9786	2.9786
2061	02	29.966	33.597	13.395	14.879	19.136	22.497	7.9583	8.5622	-7.2212	-6.6031	268.53	271.78	3.8516	4.3117	3.0112	3.0112
2061	03	46.58	41.901	29.52	28.378	17.51	23.775	12.147	12.328	-4.1389	-4.042	283.73	286.58	7.2775	9.8111	3.2335	3.2335
2061	04	23.354	24.254	45.395	46.851	9.4574	12.679	17.534	18.261	-0.97034	-0.24262	300.12	299.15	7.7852	9.5409	3.2314	3.2314
2061	05	25.651	21.635	62.541	60.993	0.82944	0.84856	23.065	23.409	4.1864	4.6157	278.73	278.15	3.925	3.4113	2.9954	2.9954
2061	06	20.079	21.966	44.187	45.059	0	0	28.518	29.318	8.0339	9.2178	239.24	236.91	1.7986	1.7327	3.007	3.007
2061	07	50.019	48.361	45.093	44.353	0	0	29.969	31.198	11.718	12.637	214.43	213.39	2.2951	2.1987	3.0023	3.0023
2061	08	65.011	67.142	57.804	57.695	0	0	28.595	29.823	10.978	11.989	217.5	215.71	2.8309	3.0643	2.5919	2.5919
2061	09	41.779	30.382	39.833	32.898	0	0	25.888	27.181	7.7971	8.2157	221.01	220.83	2.3178	2.0312	2.4789	2.4789
2061	10	35.238	37.876	23.927	24.549	0	0	20.371	21.948	1.2362	2.916	220.8	217.94	2.8879	2.9799	2.7643	2.7643
2061	11	39.5	32.932	14.927	14.466	0.0023333	0.042556	11.822	13.346	-4.7493	-3.8134	231.27	228.53	3.5708	2.8328	2.878	2.878
2061	12	19.425	25.107	9.212	10.606	2.8637	3.0093	7.1194	7.0044	-8.3349	-8.2886	246.84	239.64	2.2217	2.5882	3.1978	3.1978
2062	01	33.332	34.213	10.709	10.493	6.8091	5.6461	5.5994	6.3735	-10.001	-8.9879	252.37	249.78	2.6923	2.8921	3.096	3.096
2062	02	24.058	26.003	13.188	13.916	14.763	14.262	8.0612	9.1043	-7.7252	-6.5158	262.77	260.6	3.1221	3.5839	3.0342	3.0342
2062	03	39.434	43.226	27.316	27.125	13.178	11.613	12.549	12.738	-4.6672	-3.9399	273.46	273.56	6.1894	6.6622	3.1269	3.1269
2062	04	25.135	27.604	43.69	47.255	4.4741	5.9561	17.544	18.459	-1.0756	0.115	288.02	288.24	5.4373	5.954	3.2396	3.2396
2062	05	25.981	22.143	57.928	56.809	0.0066667	0	22.993	23.987	4.0519	4.6437	267.17	266.8	2.4239	2.3076	3.0514	3.0514
2062	06	23.153	18.548	41.566	37.446	0	0	28.307	30.001	8.4641	9.5722	232.63	230.06	1.7346	1.6473	3.0064	3.0064
2062	07	47.872	49.163	43.553	42.556	0	0	29.94	31.528	11.769	13.056	212.82	210.61	2.1868	2.2643	3.0551	3.0551
2062	08	66.319	70.216	57.801	59.004	0	0	28.635	29.809	11.08	12.075	216.52	214.98	2.8991	3.1054	2.6032	2.6032
2062	09	35.622	33.507	36.108	37.048	0	0	25.669	27.272	7.048	8.741	220.95	222.67	2.112	2.0257	2.6145	2.6145
2062	10	32.549	48.865	21.558	27.678	0	0	20.438	22.073	1.2298	3.2629	218.52	218.52	2.9238	3.7809	2.7218	2.7218
2062	11	39.853	36.788	14.425	15.412	0.096778	0.042556	11.878	12.691	-4.7605	-3.6841	282.27	234.8	3.3198	3.2341	2.8973	2.8973
2062	12	27.496	24.017	8.9843	9.949	4.1048	3.3917	5.5011	7.3929	-9.5039	-8.262	244.51	249.06	2.183	2.3823	3.0655	3.0655
2063	01	45.08	45.275	12.103	12.587	15.895	9.9963	4.8336	6.559	-10.231	-8.6568	250.41	255.4	3.0374	3.4997	3.2742	3.2742
2063	02	26.872	26.674	12.85	15.111	29.372	20.7	7.7661	9.02	-8.3424	-6.8534	264.49	272.29	3.0629	3.673	3.2183	3.2183
2063	03	33.726	38.71	25.362	29.526	30.034	17.951	12.103	12.856	-4.7772	-3.8191	275.68	284.18	7.3832	6.7373	3.0872	3.0872
2063	04	31.446	25.191	48.753	47.936	11.69	9.5929	17.962	18.041	-0.64902	-0.17433	294.42	294.13	8.9316	6.3846	3.1427	3.1427
2063	05	29.905	21.224	62.814	60.772	0.15422	0.14667	22.65	24.032	3.8849	4.6271	279.36	273.47	3.6481	2.4878	2.9803	2.9803
2063	06	28.968	23.264	51.601	41.372	0	0	27.808	29.439	8.2512	9.4488	242.38	231.87	2.0687	1.7405	3.0263	3.0263
2063	07	50.123	38.469	47.793	36.727	0	0	29.929	31.555	11.716	12.877	217.92	212.82	2.3191	1.9631	2.9649	2.9649
2063	08	72.542	63.905	60.267	53.797	0	0	28.591	30.213	11.473	12.56	219.61	213.89	3.4095	2.9347	2.6526	2.6526
2063	09	33.945	34.312	36.597	34.877	0	0	26.059	27.133	7.297	8.7782	226.61	220.02	2.2347	2.1167	2.6249	2.6249
2063	10	33.007	29.804	22.878	22.131	0	0	20.163	21.973	1.1668	2.9134	224.22	217.61	2.9202	2.4371	2.7972	2.7972
2063	11	32.541	37.612	14.308	15.71	0.71744	0.27489	11.606	12.976	-5.0665	-3.8885	230.54	224.08	2.6954	2.1609	2.9264	2.9264
2063	12	26.404	29.861	9.3923	10.755	4.108	2.4677	5.6456	7.5897	-9.199	-7.7539	240.87	238.86	2.2501	2.6096	3.0876	3.0876
2064	01	44.634	41.151	10.954	10.573	11.644	9.36										

2066	07	48.859	51.467	43.449	45.366	0	0	30.229	31.266	11.826	12.903	212.7	213.01	2.2868	2.3281	3.0341	3.0341
2066	08	64.134	66.561	55.001	57.425	0	0	29.149	30.085	11.3	12.516	216.95	218.88	3.0485	3.0366	2.5607	2.5607
2066	09	33.871	32.073	35.698	34.76	0	0	26.38	27.358	7.896	8.5822	221.24	221.69	2.1381	2.1421	2.5978	2.5978
2066	10	29.14	36.142	21.334	24.684	0	0	20.443	21.127	1.4472	2.822	218.01	219.97	2.4713	2.8053	2.6876	2.6876
2066	11	44.057	39.531	15.588	16.114	0.0097778	0.082333	12.042	12.849	-4.7138	-3.4455	224.1	227.14	3.177	3.2393	2.8969	2.8969
2066	12	28.126	27.767	9.1998	11.092	6.9832	4.3931	5.649	7.9193	-9.4121	-7.4489	241.12	241.51	2.4074	2.5882	3.1306	3.1306
2067	01	37.443	45.663	9.8739	11.099	15.316	9.6744	5.8052	5.9861	-9.1185	-9.135	249.8	251.03	2.7998	4.2064	2.9446	2.9446
2067	02	26.818	32.63	13.328	14.922	26.925	21.426	8.0964	9.0095	-7.1976	-6.5321	261.9	268.8	3.1531	4.5677	2.9656	2.9656
2067	03	52.856	43.779	25.997	27.222	20.495	11.756	13.108	-4.5355	-3.4677	-3.4677	273.8	283.5	8.7322	9.5355	3.2289	3.2289
2067	04	23.497	24.549	42.783	49.432	17	6.8199	17.618	18.601	-0.95282	0.18608	301.31	298.72	11.289	7.4893	3.2905	3.2905
2067	05	20.325	22.88	60.762	61.222	0.64322	0.00066667	22.978	24.238	3.8821	4.939	285.35	272.27	4.5746	2.5663	3.0149	3.0149
2067	06	18.416	22.1	44.958	40.44	0	0	28.746	29.858	8.4585	9.7467	241.53	231.96	1.739	1.7532	3.1537	3.1537
2067	07	50.034	43.747	45.597	40.58	0	0	30.083	31.785	11.687	13.219	213.97	212.86	2.2488	2.0962	3.0252	3.0252
2067	08	72.305	72.459	61.09	60.546	0	0	28.716	30.018	11.242	12.472	217.25	215.89	3.2343	3.3074	2.4911	2.4911
2067	09	35.204	41.791	37.209	39.432	0	0	25.701	26.599	7.3681	9.0933	224	222.07	2.16	2.5351	2.4986	2.4986
2067	10	25.214	39.991	22.72	25.295	0	0	20.681	21.69	1.4186	3.0288	220.62	223.2	2.0025	3.3779	2.6801	2.6801
2067	11	29.491	34.724	13.653	16.176	0.0037778	0.0022222	12.729	12.939	-4.9861	-3.6887	221.36	235.43	2.5005	2.9537	2.8553	2.8553
2067	12	20.58	27.583	8.6749	9.7135	1.458	3.2444	6.9874	7.1571	-8.9113	-8.1383	232.7	245.81	2.1076	2.3945	2.9687	2.9687
2068	01	37.763	37.552	10.257	10.422	6.2718	10.848	4.705	6.7101	-10.618	-8.6634	238.96	253.81	2.2033	3.1896	3.0148	3.0148
2068	02	31.512	29.239	14.784	15.18	21.759	21.273	7.8253	9.6678	-7.6677	-6.279	247	267.2	3.3	4.0071	2.9825	2.9825
2068	03	50.31	36.924	25.119	30.185	21.707	19.09	11.717	13.807	-4.4597	-3.1953	262.88	279.88	6.8144	7.5757	3.2502	3.2502
2068	04	22.613	22.991	43.494	46.627	12.577	6.9458	17.358	19.065	-0.85269	0.077439	288.28	290.28	6.6206	6.9772	3.207	3.207
2068	05	24.607	24.407	58.31	57.026	0.47978	0.037667	22.679	24.837	3.7763	5.0435	272.36	266.37	3.1431	2.9349	3.069	3.069
2068	06	25.51	21.592	45.946	39.051	0	0	28.184	30.35	8.4932	9.8981	235.95	231.01	1.8416	1.761	3.0447	3.0447
2068	07	45.925	46.56	43.878	42.803	0	0	30.056	31.759	11.695	13.173	214.23	212.78	2.157	2.148	2.9129	2.9129
2068	08	63.047	69.034	54.54	57.39	0	0	29.122	30.106	11.57	12.227	215.46	215.57	2.8037	3.3003	2.5884	2.5884
2068	09	39.092	27.653	36.743	32.791	0	0	25.682	27.966	7.4442	8.9244	219.88	222.22	2.3785	1.9188	2.545	2.545
2068	10	44.334	33.616	26.895	22.935	0	0	19.97	22.355	1.3482	2.927	220.34	216.31	3.3839	2.9797	2.7015	2.7015
2068	11	33.545	29.196	14.858	13.974	0.34167	0.0032222	11.714	13.695	-4.9645	-3.7059	235.32	224.55	2.8841	2.6665	2.9394	2.9394
2068	12	26.938	22.336	9.8024	10.044	2.9493	2.0791	9.7269	7.7392	-9.5523	-7.8369	246.46	233.52	2.3505	1.9773	3.1897	3.1897
2069	01	30.309	32.573	10.405	10.116	10.288	8.3432	6.3282	6.833	-9.4082	-8.6826	253.96	239.24	2.7757	2.6322	3.1085	3.1085
2069	02	25.467	25.49	13.062	14.653	17.097	15.735	9.0418	10.024	-7.5737	-6.1196	264.46	249.42	3.5739	3.1893	3.0912	3.0912
2069	03	36.309	38.583	26.175	28.774	14.633	12.463	12.268	13.414	-4.2513	-3.5488	276.8	261.9	6.2101	5.8319	3.1774	3.1774
2069	04	26.891	24.098	45.886	43.012	6.4637	3.4252	17.82	19.06	-0.66821	0.16416	288.44	274.61	5.0234	4.1308	3.3513	3.3513
2069	05	25.268	22.291	58.435	49.504	0.93744	0	23.183	24.922	4.0103	5.208	268.27	253.26	3.0931	2.1839	3.0311	3.0311
2069	06	18.76	19.052	38.913	33.102	0	0	29.096	30.569	8.9393	10.065	233.56	224.3	1.7278	1.6368	2.9129	2.9129
2069	07	42.821	50.652	39.113	44.593	0	0	30.348	31.682	11.972	13.303	212.14	209.72	2.1265	2.2158	3.0042	3.0042
2069	08	64.597	60	55.607	53.381	0	0	28.862	30.593	11.296	13.112	215.97	214.09	2.8325	2.7678	2.4731	2.4731
2069	09	34.974	31.493	35.087	33.269	0	0	26.032	27.602	7.4056	9.2173	219.85	217.13	2.1618	1.9298	2.5573	2.5573
2069	10	35.1	36.615	23.466	22.774	0	0	20.462	22.04	1.453	3.2884	218.39	213.72	2.758	3.0022	2.7766	2.7766
2069	11	49.278	33.373	14.973	15.708	0.15578	0.0025556	12.002	14.166	-4.6286	-3.1828	229.45	225.84	4.2764	2.8768	2.9445	2.9445
2069	12	26.894	21.013	8.9631	9.4186	4.518	1.9859	6.3585	8.5007	-8.7492	-7.4757	251.91	236.87	2.5075	2.3277	3.0923	3.0923
2070	01	38.705	32.85	10.17	10.659	11.249	3.9438	5.3894	7.7598	-10.221	-7.897	260.64	244.29	2.9424	3.3067	3.1485	3.1485
2070	02	22.816	25.024	13.622	16.537	24.586	7.821	8.617	10.526	-6.8894	-5.3904	272.14	259.32	3.7973	3.7062	3.1911	3.1911
2070	03	46.423	31.706	29.708	27.309	20.295	6.0892	12.645	13.81	-4.0222	-3.3703	284.47	267.19	7.7135	4.7011	3.2824	3.2824
2070	04	29.19	21.658	48.45	42.176	9.9259	1.5489	17.584	19.632	-0.49313	0.60984	301.41	269.88	9.6593	3.4359	3.3491	3.3491
2070	05	24.096	19.795	63.271	45.176	0.057333	0	22.678	24.566	3.9441	5.2244	281.98	246.9	3.2709	1.8825	2.9478	2.9478
2070	06	20.866	22.643	46.202	32.653	0	0	28.416	30.186	8.4976	9.9512	239.76	220.18	1.7196	1.7254	3.0924	3.0924
2070	07	53.753	42.405	47.975	38.677	0	0	29.877	31.996	11.842	13.496	214.12	208.77	2.3378	2.0258	3.0688	3.0688
2070	08	75.415	68.418	61.84	57.017	0	0	28.591	30.274	11.044	12.788	218.55	212.42	3.5958	3.0729	2.5916	2.5916
2070	09	37.525	42.525	38.716	38.802	0	0	25.811	27.218	7.8327	9.2468	226.92	218.86	2.2991	2.4237	2.5459	2.5459
2070	10	34.512	31.858	25.582	23.336	0	0	20.608	22.412	1.8475	3.1527	224.13	221.06	2.7552	2.8163	2.7185	2.7185
2070	11	39.447	30.29	13.856	14.885	0.19378	0.023111	11.503	14.383	-5.0966	-3.1572	231.3	226.14	4.3278	2.3145	3.04	3.04
2070	12	28.246	26.811	8.7364	10.273	3.2704	5.1212	5.2514	8.1702	-10.066	-7.4037	248.05	234.05	2.4391	2.6937	3.1698	3.1698
2071	01	36.211	40.336	10.779	11.865	12.597	8.449	5.5385	7.2031	-10.252	-8.2526	255.44	245.33	3.2437	3.5031	3.2167	3.2167
2071	02	23.068	31.929	14.332	14.861	20.598	15.4	8.8328	9.2277	-7.4515	-6.4241	268.81	268.81	3.6769	3.9907	2.9781	2.9781
2071	03	50.416	37.401	27.847	29.495	16.85	14.32	11.846	13.377	-4.4662	-3.6094	279.7	277.05	8.2512	6.5661	3.3022	3.3022
2071	04	31.989	19.747	47.637	46.099	9.0884	3.9134	17.324	19.156	-0.9524	0.33744	301.29	287.99	8.8421	5.2219	3.3406	3.3406
2071	05	21.614	20.837	61.019	54.286	0.75578	0	23.156	24.841	3.9724	5.1742	283.35	259.3	3.5725	2.1011	3.1304	3.1304
2071	06	28.571	22.643	50.555	35.871	0	0	28.075	30.19	8.4461	9.8894	241.46	225.04	1.9695	1.7926	3.0693	3.0693
2071	07	44.699	43.792	44.899	39.746	0	0	30.376	31.956	12.027	13.419	217.81	210.34	2.1669	2.0589	3.0323	3.0323
2071	08	70.626	58.701	59.741	52.334	0	0	28.538	30.637	11.185	12.973	218.04	214.13	3.1879	2.6332	2.6119	2.6119
2071	09	35.751	33.309	36.882	34.253	0	0	25.745	27.329	7.4292	8.6251	224	215.63	2.1681	2.0594	2.6307	2.6307
2071	10	32.513	34.667	21.465	21.854	0	0	20.615	22.545	1.6691	3.605	221.76	213.08	3.2781	3.1091	2.7554	2.7554
2071	11	40.248	29.462	15.148	14.622	0.041444	0.00011111	12.539	13.482	-4.5255	-3.6373	230.21	223.6	3.3899	2.6526	2.8821	

2074	05	25.752	22.501	58.938	56.492	0.179	0	23.18	24.925	4.2413	5.2539	272.24	262.49	2.9468	2.3332	3.0104	3.0104
2074	06	20.17	24.062	41.588	37.819	0	0	28.577	30.569	8.5513	10.285	235.96	225.95	1.7066	1.7715	3.1092	3.1092
2074	07	53.294	45.467	46.434	41.752	0	0	30.18	32.276	11.882	13.578	213.78	211.73	2.3996	2.1318	3.0406	3.0406
2074	08	68.34	59.051	58.53	51.752	0	0	28.691	30.996	11.136	13.247	219.4	213.75	3.2836	2.7016	2.5251	2.5251
2074	09	37.395	31.075	37.284	32.138	0	0	26.23	28.087	7.4441	9.2162	224.26	217.24	2.3576	2.0215	2.5631	2.5631
2074	10	30.041	40.061	22.249	24.358	0	0	21.161	22.555	1.9401	3.4294	222.92	215.83	2.7588	3.25	2.6902	2.6902
2074	11	32.205	40.075	14.309	15.532	0.090556	0.013333	12.621	13.083	-4.6032	-3.7231	228.71	228.21	2.8116	3.3305	2.8	2.8
2074	12	25.437	23.425	9.2568	10.459	2.7013	4.4571	6.5283	8.4266	-8.9586	-7.3114	239.94	243.37	2.1932	2.6149	3.1358	3.1358
2075	01	31.605	32.973	10.493	11.145	10.288	7.3091	6.3422	7.6132	-9.3767	-7.701	246.71	252.18	2.6941	3.3949	3.0269	3.0269
2075	02	23.301	27.172	12.605	16.585	17.707	9.9776	8.5391	9.8459	-7.5058	-5.8029	256.67	266.41	2.8932	3.5072	3.0756	3.0756
2075	03	37.117	41.684	25.083	32.039	16.719	9.7966	12.847	13.539	-4.6293	-3.2171	267.17	274.79	5.7834	5.4901	3.345	3.345
2075	04	25.51	27.253	41.078	46.78	8.7876	5.2296	17.823	18.778	-0.89387	0.47901	279.76	283.07	6.6703	6.1102	3.3283	3.3283
2075	05	20.668	20.278	55.601	54.621	0.74978	0.14044	23.816	25.137	4.2237	5.7079	265.57	261.21	3.2714	2.6208	2.9162	2.9162
2075	06	21.981	17.881	38.399	33.075	0	0	29.021	30.523	8.8742	9.9893	227.91	224.77	1.7388	1.6194	3.0363	3.0363
2075	07	45.993	45.89	41.145	40.524	0	0	30.809	32.567	12.231	13.72	210.42	208.55	2.1476	2.12	2.9618	2.9618
2075	08	62.108	63.618	52.554	54.186	0	0	29.49	30.927	11.786	13.099	214.44	213.43	2.9957	2.848	2.6191	2.6191
2075	09	36.934	31.847	35.456	34.956	0	0	26.226	27.884	7.6037	9.0875	219.75	218.2	2.2281	2.0206	2.4992	2.4992
2075	10	31.307	31.182	23.618	21.599	0	0	20.623	22.696	1.9901	3.3072	220.28	214.15	2.5451	2.5911	2.7653	2.7653
2075	11	39.402	39.019	13.406	14.359	0.12967	0.17722	11.83	13.572	-4.7492	-3.4419	226.15	221.45	3.3278	3.4207	2.7956	2.7956
2075	12	33.173	23.661	9.5591	10.122	4.9006	2.9236	6.5574	8.9699	-8.7092	-6.643	242.58	238.44	2.5078	2.5923	3.0336	3.0336
2076	01	33.572	39.288	10.559	11.168	15.234	5.0676	5.9508	7.5872	-9.4649	-7.5161	252.92	247.68	3.0058	3.2937	3.145	3.145
2076	02	25.192	26.822	14.566	15.83	22.696	15.358	8.4153	9.9757	-7.3136	-5.8166	264.74	261.66	3.3631	3.8062	3.0659	3.0659
2076	03	37.774	42.375	26.784	30.037	20.442	11.887	12.468	13.673	-4.5373	-2.902	275.12	273.66	7.5155	6.9192	3.2334	3.2334
2076	04	28.956	20.642	45.817	43.574	8.363	7.5258	17.902	19.196	-0.46926	0.452	290.06	281.79	8.2173	5.2402	3.2658	3.2658
2076	05	26.581	15.843	59.764	48.811	0.22144	1.437	23.288	25.019	4.5911	5.1939	273.04	259.43	3.4033	3.572	3.0193	3.0193
2076	06	21.715	19.144	43.203	33.681	0	0	28.775	30.881	8.5418	10.399	236.38	224.45	1.7684	1.683	2.8604	2.8604
2076	07	47.716	46.786	43.43	40.941	0	0	30.528	32.303	12.288	13.684	213.93	208.83	2.1995	2.131	3.0194	3.0194
2076	08	62.235	71.906	55.861	61.108	0	0	29.401	30.546	11.624	12.805	216.84	215.43	2.7489	3.2366	3.2683	3.2683
2076	09	36.167	35.677	34.521	37.608	0	0	26.409	27.925	7.6214	9.3649	219.44	220.02	2.3016	2.1494	2.6545	2.6545
2076	10	30.452	24.663	22.315	21.825	0	0	21.591	22.824	2.008	3.3537	219.04	216.97	2.5367	2.0527	2.7622	2.7622
2076	11	45.58	41.995	16.364	15.481	0.11467	0.076111	12.802	14.286	-3.9424	-2.6273	226.92	218.31	3.6373	3.3759	2.9327	2.9327
2076	12	32.135	25.905	10.163	8.8357	5.131	5.2368	5.9786	7.5344	-9.1511	-7.6908	244.55	234.55	2.6796	2.4663	2.9518	2.9518
2077	01	41.076	40.518	11.157	11.016	14.721	9.8903	5.31	6.97	-9.6576	-8.3016	255.75	245.83	3.393	3.2014	3.1819	3.1819
2077	02	25.698	33.346	13.974	15.934	24.39	21.073	8.69	9.4999	-6.509	-5.7851	270.71	259.51	3.9356	4.0126	2.9779	2.9779
2077	03	42.322	49.083	28.125	31.882	19.664	16.886	12.117	13.753	-4.4575	-2.9437	284.72	277.45	7.8678	8.9593	3.2404	3.2404
2077	04	22.967	22.611	47.42	47.321	8.9468	6.7996	17.945	18.945	-0.51639	0.57606	301.36	295.06	8.6078	6.9209	3.2944	3.2944
2077	05	23.835	21.573	62.108	60.289	0.091111	0.85178	23.351	24.871	4.3596	5.5628	275.43	268.83	2.9087	2.558	2.9585	2.9585
2077	06	25.091	20.659	45.97	38.363	0	0	28.514	30.659	8.9374	10.466	235.22	229.08	1.8462	1.6943	3.0644	3.0644
2077	07	52.161	43.665	45.984	39.91	0	0	30.365	32.512	12.185	13.874	213.09	210.52	2.2972	2.1127	3.0334	3.0334
2077	08	68.649	64.566	59.813	54.483	0	0	29.187	31.118	11.539	13.369	218.23	214.17	3.1885	2.9276	2.59	2.59
2077	09	34.882	35.912	35.175	36.12	0	0	26.147	27.897	7.8982	9.6967	222.1	219.06	2.2677	2.1502	2.5442	2.5442
2077	10	30.537	26.775	22.349	22.16	0	0	21.145	22.466	2.2458	3.2346	220.36	217.19	2.5617	2.479	2.7224	2.7224
2077	11	42.519	43.894	16.075	17.627	0.079889	0.21644	12.382	13.187	-4.3805	-2.953	229.01	221.3	3.4983	3.4888	3.015	3.015
2077	12	27.371	21.803	9.7288	8.7623	2.7824	2.5744	6.1609	8.2445	-8.812	-7.6094	245.59	239.47	2.4553	2.1789	3.0001	3.0001
2078	01	38.991	27.882	10.98	10.494	9.3061	7.75	6.3903	7.528	-9.0328	-8.1699	254.25	245.49	3.4026	2.6575	3.1799	3.1799
2078	02	31.127	26.713	14.771	16.04	18.132	11.933	8.0058	10.699	-7.482	-5.0481	269.39	255.29	3.2737	3.5657	3.1486	3.1486
2078	03	40.196	34.606	27.89	29.252	21.154	7.0644	12.099	14.014	-4.318	-3.1068	280.98	268.01	8.0845	5.0899	3.2812	3.2812
2078	04	32.682	27.444	48.553	43.801	10.178	2.5643	17.622	19.553	-0.30558	0.78283	296.45	273.34	7.215	5.2641	3.3219	3.3219
2078	05	27.397	27.492	63.529	51.84	0.088556	0	22.887	24.791	4.0108	5.3418	281.33	252.97	3.3104	2.5191	2.9454	2.9454
2078	06	25.205	21.905	49.516	38.715	0	0	28.291	30.656	8.3409	10.299	242.03	225.74	1.8727	1.7014	3.0143	3.0143
2078	07	49.311	49.973	46.407	43.23	0	0	30.324	32.338	11.97	13.811	216.5	207.63	2.241	2.2425	3.0335	3.0335
2078	08	69.978	66.659	58.634	57.39	0	0	29.16	30.931	11.771	13.123	219.69	212.87	3.3674	3.1373	2.6046	2.6046
2078	09	37.829	36.098	38.891	37.724	0	0	25.798	27.959	7.5659	9.524	225.41	218.6	2.214	2.1795	2.6133	2.6133
2078	10	44.458	26.63	26.094	22.825	0	0	20.133	23.045	1.6492	3.8355	223.36	214.51	3.4319	2.1222	2.7614	2.7614
2078	11	39.808	38.444	16.358	15.811	0	0	12.325	14.504	-4.2229	-3.0935	237.97	217.62	3.7517	3.1456	2.8681	2.8681
2078	12	28.305	29.745	9.9114	11.818	2.1167	2.1149	6.8094	9.2074	-8.4322	-6.3054	254.69	233.66	2.8752	2.7547	3.1199	3.1199
2079	01	35.152	38.594	10.678	10.515	7.992	7.128	5.8528	7.6062	-9.6969	-7.4906	265.87	245.71	3.0395	3.4828	3.005	3.005
2079	02	26.582	34.819	14.811	17.425	16.955	12.138	8.2613	10.034	-7.3994	-5.3024	276.28	263.08	3.3418	4.5176	3.1711	3.1711
2079	03	43.213	46.902	30.666	32.116	16.561	7.891	12.656	13.712	-4.2859	-2.9163	286.65	281.75	7.418	8.6182	3.3477	3.3477
2079	04	33.977	27.339	50.241	48.699	7.8104	1.9091	17.821	18.678	-0.55345	0.4526	299.33	292.69	6.8768	4.7128	3.3944	3.3944
2079	05	19.236	21.834	59.503	58.951	1.2068	0.0014444	23.25	25.211	4.1138	5.5585	281.87	267.68	4.2371	2.2902	2.9301	2.9301
2079	06	23.283	25.639	46.13	40.276	0	0	28.836	30.344	8.9161	10.163	238.64	227.98	1.7893	1.8161	2.9364	2.9364
2079	07	46.565	47.279	43.578	43.218	0	0	30.463	32.393	12.043	14.021	214.86	212.38	2.183	2.1846	2.9659	2.9659
2079	08	78.203	63.216	63.142	56.462	0	0	28.859	31.161	11.467	13.307	217.4	215.03	3.4733	2.7725	2.5966	2.5966
2079	09	34.06	34.127	37.939	36.881	0	0	26.07	28.604	7.6247	9.						

2082	03	46.871	37.289	28.883	32.68	13.853	6.7462	12.736	14.568	-3.7914	-2.3918	278.34	287.02	8.5642	7.7623	3.2983	3.2983
2082	04	33.302	19.383	48.827	47.384	5.5158	1.2961	17.842	20.209	-0.4842	1.0678	294.68	288.28	8.1076	4.7064	3.3633	3.3633
2082	05	23.647	17.937	59.793	49.677	0	0	22.85	25.285	3.806	5.831	274.67	255.64	2.3891	1.913	3.0732	3.0732
2082	06	22.74	25.339	43.354	37.062	0	0	28.244	30.69	8.2398	10.735	235.91	222.89	1.7696	1.7615	2.905	2.905
2082	07	56.011	49.058	49.145	42.33	0	0	30.265	32.537	12.211	14.127	214.56	209.64	2.4255	2.2278	3.0127	3.0127
2082	08	70.572	60.861	60.739	54.436	0	0	28.612	31.319	11.453	13.528	221.24	215.93	3.5058	2.8486	2.4596	2.4596
2082	09	39.406	29.064	38.49	31.393	0	0	25.99	28.286	7.8259	9.7284	224.87	217.46	2.5264	2.0361	2.5283	2.5283
2082	10	37.86	28.829	24.429	20.247	0	0	20.611	23.696	1.842	4.5357	224.5	214.11	3.4808	2.6697	2.7115	2.7115
2082	11	31.948	39.56	14.41	16.429	0.10822	0.00055556	12.359	14.415	-4.4108	-3.2654	235.2	222.37	2.9194	3.4124	2.9203	2.9203
2082	12	26.821	29.697	8.624	11.361	2.6656	0.49389	6.58	8.5652	-8.8243	-6.8853	245.5	238.8	2.2869	2.7238	3.0848	3.0848
2083	01	39.22	32.738	11.19	11.064	11.149	5.7584	5.1958	8.0624	-10.093	-7.4446	253.23	249.91	2.8403	3.1536	3.0107	3.0107
2083	02	21.388	27.476	13.293	16.031	23.238	10.306	9.0437	10.428	-7.1354	-5.0906	265	262.98	3.3279	3.9597	3.1434	3.1434
2083	03	40.38	51.814	28.775	33.892	17.876	6.5061	13.024	14.397	-3.8956	-2.569	276.37	275.67	6.5683	8.1204	3.1457	3.1457
2083	04	20.252	18.788	46.151	46.252	6.7849	2.8114	18.518	19.957	-0.46554	0.7001	291.67	286.86	4.7348	5.1658	3.3603	3.3603
2083	05	19.823	20.824	56.591	51.901	0	0.28889	23.591	25.374	4.1733	5.5894	267.87	256.91	2.2025	2.3237	3.0177	3.0177
2083	06	21.514	19.992	37.33	34.369	0	0	28.909	31.313	8.731	10.871	228.95	223.65	1.6814	1.6585	3.0397	3.0397
2083	07	48.786	51.534	42.77	45.111	0	0	30.342	32.345	12.121	13.891	211.95	208.44	2.2666	2.242	3.0376	3.0376
2083	08	62.67	69.396	54.981	58.993	0	0	29.054	31.199	11.483	13.359	216.38	214	2.8169	3.1798	2.5634	2.5634
2083	09	35.388	45.256	35.218	40.716	0	0	26.683	27.997	7.8528	9.6733	220.28	220.27	2.198	2.7255	2.587	2.587
2083	10	28.375	33.784	21.426	26.639	0	0	21.549	23.091	2.2761	3.8515	219	222.26	2.6534	2.77	2.7713	2.7713
2083	11	43.345	31.815	15.113	15.424	0.0008889	0.071778	12.77	13.984	-4.2483	-3.2079	223.83	227.56	3.3282	2.8249	2.884	2.884
2083	12	26.75	27.683	9.8857	10.22	6.1464	1.7531	6.5386	8.8187	-8.7211	-6.8628	241.21	238.03	2.4963	2.7307	2.9988	2.9988
2084	01	38.645	30.831	11.392	9.9076	12.29	5.1596	6.3756	7.7012	-8.9221	-7.6801	250.42	248.8	3.1873	2.7307	3.074	3.074
2084	02	31.593	28.727	15.715	16.318	20.128	13.169	9.2123	10.031	-6.5668	-5.9011	265.47	259.09	5.0612	3.3832	3.025	3.025
2084	03	48.143	34.458	29.649	31.079	15.443	12.689	12.671	14.667	-3.8153	-2.5333	283.82	269.6	9.9159	6.3855	3.2882	3.2882
2084	04	28.45	24.29	47.959	44.643	6.1197	3.8142	18.003	20.058	-0.39854	0.96722	298.58	274.37	7.9658	4.7674	3.1989	3.1989
2084	05	21.664	22.282	58.999	50.208	0.45756	0.14533	23.529	25.235	4.0844	5.7075	276.35	252.69	3.1377	2.447	2.8841	2.8841
2084	06	21.728	18.841	42.845	32.751	0	0	28.808	31.184	8.788	10.65	236.49	222.62	1.7506	1.6575	2.9999	2.9999
2084	07	46.316	45.044	42.877	39.517	0	0	30.544	32.991	12.234	14.376	214.46	207.49	2.183	2.1221	3.0872	3.0872
2084	08	74.225	62.126	59.067	52.754	0	0	28.896	31.366	11.359	13.621	217.02	211.75	3.5404	2.8256	2.6311	2.6311
2084	09	32.809	33.102	37.759	35.155	0	0	26.047	28.956	7.3816	9.9252	227.16	217.61	2.0951	2.002	2.5285	2.5285
2084	10	43.119	29.673	26.838	22.177	0	0	20.648	23.716	1.9171	4.1685	221.94	214.24	3.3887	2.5263	2.7934	2.7934
2084	11	39.996	34.826	13.745	14.647	0.038222	0	11.696	14.472	-4.6287	-2.4879	234.58	219.45	2.9797	3.1002	2.9002	2.9002
2084	12	28.192	28.648	9.8013	10.701	9.7372	2.2288	5.8171	9.49	-9.2989	-6.7551	247.54	233.16	2.6727	3.0474	3.0061	3.0061
2085	01	37.539	36.709	10.616	11.956	14.847	4.435	5.5715	8.0387	-9.9921	-7.4578	246.56	246.56	2.9458	3.8815	3.0913	3.0913
2085	02	26.489	24.275	13.484	15.502	25.753	9.2191	8.1852	10.648	-7.5211	-5.675	269.96	261.52	3.392	3.8225	3.0925	3.0925
2085	03	43.939	43.25	28.051	33.121	26.097	5.3657	12.185	14.475	-4.2177	-2.6117	280.39	272.28	8.0682	6.5948	3.2022	3.2022
2085	04	31.152	24.076	48.087	46.934	11.818	0.522	17.265	20.422	-0.84789	1.1606	301.97	279.23	10.221	4.0821	3.2746	3.2746
2085	05	24.148	21.321	64.607	49.925	0.36867	0	23.098	25.354	4.1847	5.8475	285.13	251.68	3.4669	2.149	3.0116	3.0116
2085	06	23.154	28.388	47.149	37.744	0	0	28.381	31.126	8.6477	10.882	241.67	221.41	1.8435	1.8463	3.0579	3.0579
2085	07	48.567	56.407	45.671	48.354	0	0	30.238	32.168	12.164	14.052	217.78	210.69	2.3194	2.5323	2.9048	2.9048
2085	08	63.238	65.494	55.867	60.307	0	0	29.216	31.001	11.477	13.482	217.72	216.95	2.9044	2.8773	2.5947	2.5947
2085	09	34.981	39.019	34.285	36.924	0	0	26.15	27.907	7.5443	9.8663	221.85	218.33	2.3054	2.413	2.4902	2.4902
2085	10	37.113	37.969	24.271	27.607	0	0	20.844	23.314	1.8013	4.4252	220.89	219.14	3.1925	2.9619	2.6594	2.6594
2085	11	30.4	32.645	13.707	15.497	0.10956	0	12.868	14.206	-4.2114	-2.8741	231.24	226.32	2.7635	2.7166	2.9763	2.9763
2085	12	25.375	26.418	9.0818	9.6923	2.1081	2.8127	7.271	8.131	-8.6286	-6.9839	242.14	237.33	2.5304	2.3462	3.1404	3.1404
2086	01	38.614	44.827	11.165	11.491	7.6174	9.8017	5.6255	7.179	-9.8393	-7.9329	250.81	245.31	2.8496	3.396	2.9776	2.9776
2086	02	26.634	33.799	14.152	15.952	17.897	21.884	8.5585	9.7668	-7.1359	-5.6895	263.49	262.79	3.4757	5.0185	3.0631	3.0631
2086	03	37.303	39.453	27.223	31.604	14.538	15.374	12.277	13.825	-4.4337	-3.0226	276.91	282.32	5.609	7.5465	3.1873	3.1873
2086	04	25.763	24.025	42.785	51.575	7.5387	3.0026	17.656	19.974	-1.1531	0.91156	288.21	295.59	6.5042	5.7139	3.3917	3.3917
2086	05	26.64	24.899	59.953	59.595	0.17922	0.094889	23.115	25.694	4.2694	6.0373	271.19	262.64	2.7962	2.6066	2.981	2.981
2086	06	25.651	20.693	44.933	36.481	0	0	28.561	31.296	8.9403	11.085	235.28	225.99	1.9173	1.6398	3.1313	3.1313
2086	07	47.01	49.112	43.542	43.414	0	0	30.423	32.682	12.202	14.266	215.43	210.42	2.2182	2.2413	3.004	3.004
2086	08	64.399	65.142	56.038	55.876	0	0	29.126	31.189	11.58	13.375	216.54	214.36	2.9073	3.0547	2.6223	2.6223
2086	09	37.527	38.362	37.554	40.109	0	0	26.504	28.459	7.9031	9.9809	222.35	219.22	2.2197	2.1315	2.5649	2.5649
2086	10	41.824	38.308	26.849	26.245	0	0	20.783	23.673	1.5793	4.3992	220.72	216.34	3.4083	3.1052	2.7445	2.7445
2086	11	32.952	34.876	13.97	16.655	0.047333	0.0042222	12.279	15.029	-4.8302	-2.2988	231.95	225.02	2.7589	3.0753	3.0434	3.0434
2086	12	21.582	27.303	9.5452	10.581	4.4918	2.4694	7.1305	8.5011	-8.941	-6.5378	242.6	237.05	2.4276	2.3629	2.9773	2.9773
2087	01	36.369	43.793	10.939	11.396	7.6646	7.9399	6.3491	7.2923	-8.9541	-7.4086	249.76	246.93	3.1516	4.026	3.1518	3.1518
2087	02	26.816	25.162	13.923	16.403	15.457	16.411	8.6446	10.995	-7.2442	-5.2796	263.13	264.95	3.504	4.6289	3.1874	3.1874
2087	03	34.134	46.886	27.316	32.512	13.047	11.094	12.46	14.304	-4.2042	-2.6391	275.81	276.88	5.6688	8.0927	3.2125	3.2125
2087	04	21.633	20.213	43.884	47.155	3.8166	3.6147	18.1	20.018	-0.96421	0.77088	285.38	288.28	4.6079	5.3984	3.1482	3.1482
2087	05	25.786	24.926	56.174	55.749	0.254	0.017111	23.484	26.188	4.2172	6.3043	261.89	259.05	3.3264	2.5977	3.0387	3.0387
2087	06	21.1	21.484	38.083	36.439	0	0	28.556	31.419	8.3791	11.09	229.08	226.08	1.6663	1.6969	3.0532	3.0532
2087	07	47.337	48.445	42.145	43.265	0	0	30.371	32.809								

2090	01	38.007	43.454	10.548	11.757	10.282	5.1027	5.5871	7.3058	-9.7669	-7.5576	255.24	251.89	2.7211	3.9855	2.9858	2.9858
2090	02	26.898	30.01	13.055	17.586	23.91	13.331	8.4514	11.038	-6.4958	-4.5767	265.29	270.36	3.7351	5.1024	2.9708	2.9708
2090	03	43.662	40.965	28.141	32.725	20.464	7.8907	12.161	14.197	-3.9502	-2.3788	280.48	285.03	7.0856	7.8486	3.1537	3.1537
2090	04	23.556	21.564	45.248	49.454	10.909	1.8933	17.739	20.753	-0.78783	1.6989	296.69	289.05	8.0046	4.6781	3.3119	3.3119
2090	05	19.081	16.869	60.755	52.491	0.33867	0	23.966	26.475	4.2773	6.4969	276.4	257.68	0.706	1.8992	3.0401	3.0401
2090	06	20.898	23.083	40.266	34.465	0	0	28.84	31.665	8.7769	11.321	232.82	220.98	1.7239	1.7394	2.9663	2.9663
2090	07	44.294	51.781	40.643	43.974	0	0	30.675	32.916	12.24	14.474	212.97	208.64	2.1217	2.2914	3.0345	3.0345
2090	08	59.058	61.014	50.355	54.281	0	0	29.31	31.657	11.603	13.968	214.99	215.04	2.7933	2.8066	2.5087	2.5087
2090	09	35.879	26.579	34.874	30.766	0	0	26.382	29.554	7.864	10.487	220.09	217.7	2.2731	1.8399	2.5465	2.5465
2090	10	40.91	39.13	26.223	24.919	0	0	20.623	23.77	2.0109	4.859	219.91	212.97	2.9067	3.1727	2.7515	2.7515
2090	11	44.19	45.457	15.991	19.006	0.144	0.056	12.123	14.613	-4.293	-2.4152	232.41	226.19	3.4327	3.6512	2.9236	2.9236
2090	12	31.959	29.177	10.152	10.235	7.2498	3.0337	6.4017	8.6766	-8.8545	-6.9755	247.83	243.21	2.9086	2.8078	2.9484	2.9484
2091	01	38.54	34.96	11.038	12.222	15.309	8.2267	5.7806	7.7952	-9.5283	-6.944	259.79	253.76	3.2035	3.819	3.0583	3.0583
2091	02	23.517	33.548	14.938	17.911	26.473	10.294	9.3825	10.287	-6.9008	-4.9147	271.42	270.15	3.4141	5.1756	3.1591	3.1591
2091	03	36.205	38.295	26.689	31.329	23.402	8.253	12.479	14.592	-4.5724	-2.1429	281.37	284.2	6.8353	8.5311	3.208	3.208
2091	04	26.457	26.919	47.369	48.732	13.256	3.0507	18.449	19.896	-0.30583	1.2683	293.67	286.17	7.8668	4.7067	3.357	3.357
2091	05	22.147	18.076	58.533	52.66	1.7588	0.66133	23.519	25.882	4.3362	6.0867	275.03	261.75	4.7333	2.9375	2.9734	2.9734
2091	06	22.035	26.189	42.422	39.755	0	0	28.782	31.476	8.5361	11.262	235.84	224.95	1.8192	1.8061	3.0691	3.0691
2091	07	49.787	47.27	45.166	42.361	0	0	30.59	33.035	12.36	14.532	214.69	210.38	2.2656	2.2012	3.0189	3.0189
2091	08	67.196	64.126	57.293	56.353	0	0	29.113	31.682	11.41	13.882	218.3	213.6	3.1299	2.9019	2.6107	2.6107
2091	09	31.098	37.382	33.971	36.341	0	0	26.572	29.127	7.6483	10.441	223.26	217.56	2.1071	2.3604	2.5069	2.5069
2091	10	30.478	42.032	23.621	29.322	0	0	21.799	23.593	2.1894	5.0146	218.83	216.93	2.4226	3.0461	2.7178	2.7178
2091	11	32.707	42.914	14.227	18.748	0.0003333	0.12589	12.453	15.08	-4.5724	-1.807	224.6	227.74	2.5902	3.662	2.8462	2.8462
2091	12	27.498	31.219	8.8629	10.173	3.8948	2.2391	7.0629	7.6488	-8.2801	-7.03	235.21	244.51	2.4867	2.686	3.1416	3.1416
2092	01	34.444	39.904	10.678	12.491	9.9732	11.679	5.9329	7.911	-10.178	-7.3416	245.24	253.99	2.5036	3.8214	3.0091	3.0091
2092	02	27.511	29.121	15.077	17.51	20.477	16.874	8.9148	10.303	-7.0002	-5.1095	254.63	271.31	3.156	4.837	2.9344	2.9344
2092	03	30.738	36.97	26.692	33.375	19.336	12.52	12.697	14.676	-4.1515	-2.1817	265.99	283.49	5.388	7.0364	3.3284	3.3284
2092	04	26.134	25.733	44.826	49.112	7.0882	3.1206	18.45	19.739	-0.28012	1.1321	276.86	288.49	5.256	5.4477	3.397	3.397
2092	05	24.62	18.698	51.898	55.421	0.45767	0	23.514	26.44	4.3532	6.332	259.05	261.65	2.9855	2.1914	3.006	3.006
2092	06	21.977	17.849	38.496	31.427	0	0	29.342	32.004	9.175	11.35	229.77	223.35	1.8479	1.6296	3.0858	3.0858
2092	07	46.856	51.022	42.521	42.325	0	0	30.643	33.168	12.337	14.707	211.56	209.01	2.1376	2.3263	3.0323	3.0323
2092	08	60.797	65.129	52.686	58.416	0	0	29.509	31.805	11.6	14.166	214.72	216.87	2.7856	3.0056	2.6563	2.6563
2092	09	34.363	34.481	33.186	35.288	0	0	26.629	28.623	7.527	9.8876	219.01	219.06	2.1985	2.1013	2.5116	2.5116
2092	10	31.641	44.604	23.529	28.368	0	0	21.04	23.492	2.0928	4.6039	218.95	216.99	2.4907	3.3976	2.7292	2.7292
2092	11	34.754	33.621	14.154	17.36	0.0016667	0	12.835	15.318	-4.0604	-2.0778	225.06	223.63	3.1485	3.0012	2.9307	2.9307
2092	12	24.212	26.634	10.115	10.8	3.0476	2.1454	7.4315	9.0483	-8.2904	-6.3064	238.08	240.11	2.3167	2.8882	3.1182	3.1182
2093	01	38.9	44.767	10.998	11.6	7.9712	4.0241	5.9947	7.1769	-8.8212	-8.3314	246.63	252.11	3.0392	3.9682	3.2017	3.2017
2093	02	24.223	25.678	13.334	15.422	17.846	13.465	8.8305	11.134	-6.7365	-4.9855	259.63	270.86	3.0819	4.834	3.0225	3.0225
2093	03	40.751	42.283	26.564	33.174	15.806	8.8913	12.768	14.665	-3.8249	-2.3239	270.65	281.31	7.2301	8.937	3.2699	3.2699
2093	04	18.702	19.758	44.44	46.859	5.3028	3.193	18.299	20.735	-0.75368	1.4455	286.81	286.11	4.9222	6.0109	3.2528	3.2528
2093	05	20.448	17.779	54.197	52.222	0	0.00022222	23.574	26.447	4.2645	6.1606	260.83	255.98	2.2484	1.9449	3.0129	3.0129
2093	06	19.489	18.132	34.497	30.648	0	0	29.39	32.155	9.0264	11.459	225.78	220.19	1.6338	1.6058	2.9398	2.9398
2093	07	45.693	48.008	40.076	40.559	0	0	30.862	33.429	12.454	14.858	209.36	206.78	2.0957	2.1361	2.9835	2.9835
2093	08	63.858	70.352	56.889	58.923	0	0	29.417	31.605	11.713	13.907	212.99	217.99	2.7169	3.1941	2.6551	2.6551
2093	09	41.273	37.967	37.832	40.031	0	0	26.131	29.185	7.8875	10.144	217	219.8	2.3286	2.1062	2.5261	2.5261
2093	10	24.235	38.137	20.356	25.917	0	0	21.169	23.575	1.9172	4.4994	218.56	215.94	2.3081	3.084	2.7204	2.7204
2093	11	34.581	45.733	13.935	18.007	0.14544	0.10111	12.221	14.563	-4.6796	-2.2136	221.46	225.87	2.8036	3.6183	2.8922	2.8922
2093	12	25.824	22.562	10.131	11.741	2.6797	4.516	6.8285	9.2783	-8.6873	-6.1556	234.61	244.24	2.3187	2.7142	3.0707	3.0707
2094	01	30.595	33.61	10.319	13.241	7.6827	5.0524	6.3911	8.6858	-9.285	-6.6681	243.56	253.31	2.5899	3.4728	2.3779	2.3779
2094	02	24.497	24.668	12.641	17.128	14.82	8.4227	8.357	11.401	-7.5494	-4.6881	253.72	266.3	3.0084	3.7628	3.1204	3.1204
2094	03	39.425	32.694	27.64	34.732	12.509	5.2347	13.089	15.834	-4.0996	-1.9402	266.25	273.11	5.6394	5.081	3.2652	3.2652
2094	04	23.367	20.987	42.163	43.634	6.1994	1.3922	18.366	20.796	-0.42035	1.7564	278.15	268.87	5.3057	2.8644	3.2403	3.2403
2094	05	30.971	14.296	56.138	41.539	0	0	23.581	26.885	4.5206	6.362	258.78	244.53	2.4993	1.8136	2.9565	2.9565
2094	06	28.705	20.419	44.572	27.405	0	0	28.68	32.541	8.9554	11.815	231.35	216.09	1.8318	1.6746	3.1228	3.1228
2094	07	50.856	39.856	47.032	35.711	0	0	30.289	34.028	12.13	15.131	214.42	207.84	2.2666	1.9878	3.0045	3.0045
2094	08	65.896	64.259	57.139	53.627	0	0	29.063	32.507	11.43	14.426	218	211.02	3.0478	2.9016	2.5944	2.5944
2094	09	31.167	41.371	33.455	41.078	0	0	26.677	29.29	7.8868	10.596	221.39	217.22	2.1893	2.7293	2.5572	2.5572
2094	10	44.821	36.102	27.202	26.941	0	0	21.313	23.826	2.3654	4.4885	218.34	216.18	3.3465	2.2795	2.7113	2.7113
2094	11	44.306	37.139	14.763	15.65	0.046333	0.00011111	11.806	14.563	-4.7869	-1.8981	232.92	224.22	3.4928	3.427	2.9906	2.9906
2094	12	25.008	24.428	9.9069	10.764	6.2502	1.8416	6.6465	8.8758	-8.7839	-6.5597	250.49	238.64	2.5548	2.698	3.2159	3.2159
2095	01	39.038	46.808	9.8732	11.378	10.17	3.5746	6.0919	7.947	-9.0332	-7.5925	259.67	249.17	3.3126	4.5913	2.9988	2.9988
2095	02	27.697	28.412	13.483	16.847	20.343	13.242	8.3095	10.706	-7.3758	-4.641	274.28	268.44	3.7026	5.0989	3.0105	3.0105
2095	03	43.038	40.041	30.991	30.649	18.568	9.8336	12.644	14.471	-3.5545	-2.5038	287.85	280.53	7.6749	6.7979	3.272	3.272
2095	04	26.608	25.782	48.567	48.152	9.4653	2.804	18.009	20.261	-0.43731	1.531	301.47	286.15	7.2346	6.5125	3.2955	3.2955
2095	05	27.136	15.873	62.772	52.446	0.898	0	23.287	26.326</								

2097	11	47.66	38.9	14.572	17.524	0.33011	0.088667	11.58	15.15	-4.5533	-1.7321	239.11	225.2	3.8975	3.8094	2.9227	2.9227
2097	12	27.381	27.811	9.3855	10.668	7.6796	0.706	6.027	9.0753	-9.1198	-6.4251	258.7	240.36	2.6886	2.7261	2.9676	2.9676
2098	01	40.506	40.703	11.576	11.75	15.026	5.8253	6.1602	7.8972	-8.8883	-7.1423	268.5	250.45	3.4822	4.0075	3.0464	3.0464
2098	02	28.531	27.569	13.881	16.188	25.856	12.738	8.3121	10.69	7.1465	-4.8812	281.53	267.55	3.8562	4.1243	2.919	2.919
2098	03	41.922	36.599	29.763	33.265	26.334	8.917	12.198	15.277	-4.0426	-1.8246	292	279.03	8.7589	5.8779	3.1326	3.1326
2098	04	29.409	25.109	47.291	49.424	13.828	1.8382	17.305	20.687	-1.0517	1.5934	309.88	284.29	10.911	4.8743	3.3779	3.3779
2098	05	21.689	14.958	65.997	48.735	1.4036	0	23.471	26.672	4.1492	6.5119	290.53	254.74	4.8725	1.866	3.0213	3.0213
2098	06	23.444	21.041	47.961	32.011	0	0	28.759	32.537	8.859	11.871	243.27	219.46	1.9249	1.6739	3.1775	3.1775
2098	07	44.281	46.337	42.941	40.129	0	0	30.746	33.728	12.477	15.018	217.72	207.46	2.178	2.0884	3.0333	3.0333
2098	08	61.895	65.683	55.246	55.625	0	0	29.398	32.346	11.873	14.417	218.45	213.02	2.7815	3.1352	2.4872	2.4872
2098	09	35.95	31.712	35.495	35.095	0	0	26.084	30.126	7.3918	11.1	220.72	218.28	2.1672	1.9768	2.5089	2.5089
2098	10	33.18	32.858	23.021	25.055	0	0	21.085	24.5	1.7809	5.2129	219.48	213.98	2.7429	2.5269	2.693	2.693
2098	11	35.021	34.396	13.38	16.99	0.013778	0.052111	12.251	15.478	-4.6278	-2.0471	227.81	220.32	3.0066	2.7799	2.9912	2.9912
2098	12	25.11	31.35	9.7631	10.474	2.8079	1.4677	6.671	8.7038	-8.9384	-6.644	241.77	231.51	2.3177	2.5325	3.0335	3.0335
2099	01	38.625	39.782	11.078	12.011	8.8077	9.4312	5.9041	8.4133	-9.3051	-7.0411	248.93	243.3	2.9234	3.9667	3.1538	3.1538

Data b: ArcGIS Wildfire Data of El Rito Watershed from 1970-2013

FIRE_NAME	FIR E_D AY	FIRE_MONT H	FIRE_YEAR	COST	CAUSE_RESO	REPORTE D_AREA	SIZE_CLAS S	SIZE_CLA00	AGENCY_RES
Pile	26	3	2000	1500	5 - Debris burning	31.3	C	C - 10 - 99.9 Acres	USF - USDA Forest Service
Stone	29	12	2004	250	7 - Arson	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Stone	23	5	2006	10500	1 - Lightning	3	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
Trash Fire	21	4	2007	1000	9 - Miscellaneous	0.2	A	A - 0 - .25 Acres	USF - USDA Forest Service
Rocky Road	7	9	1997	100	1 - Lightning	0.2	A	A - 0 - .25 Acres	USF - USDA Forest Service
Seco	16	8	1996	200	1 - Lightning	0.3	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
	31	8	1990	100	3 - Smoking	0.4	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
Brother	9	7	2001	6000	1 - Lightning	1	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
Unknown	11	7	1987	4500	9 - Miscellaneous	19	C	C - 10 - 99.9 Acres	USF - USDA Forest Service
	14	7	1971	300	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Red Rock #1 Acf	30	5	2011	100	4 - Campfire	0.01	A	A - 0 - .25 Acres	USF - USDA Forest Service
	24	7	1972	50	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Ceinaguitas	9	7	2002	2000	1 - Lightning	1.5	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
Treated Wood Campfir	14	8	2010	1250	4 - Campfire	0.05	A	A - 0 - .25 Acres	USF - USDA Forest Service
	8	8	1991	200	1 - Lightning	0.3	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
Red Rock #2	30	5	2011	50	4 - Campfire	0.01	A	A - 0 - .25 Acres	USF - USDA Forest Service
Red Rock #4 Acf	30	5	2011	250	4 - Campfire	0.02	A	A - 0 - .25 Acres	USF - USDA Forest Service
	3	6	1993	600	3 - Smoking	2.7	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
Pine	19	7	1998	200	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
El Rito ACF #3	22	6	2013	150	4 - Campfire	0.01	A	A - 0 - .25 Acres	USF - USDA Forest Service
Red Rock #3 Acf	30	5	2011	250	4 - Campfire	0.02	A	A - 0 - .25 Acres	USF - USDA Forest Service
Red Rocks #5 Acf	30	5	2011	250	4 - Campfire	0.02	A	A - 0 - .25 Acres	USF - USDA Forest Service
559 ACF	4	6	2012	146	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Campfire #1	30	5	2010	1169	4 - Campfire	0.05	A	A - 0 - .25 Acres	USF - USDA Forest Service
Shelter #1 ACF	28	5	2013	350	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Shelter ACF	30	5	2012	200	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Red Rocks #1 ACF	28	5	2012	146	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Canpfire #2	3	5	2008	200	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Red Rock Camp Fire	13	6	2010	1169	4 - Campfire	0.05	A	A - 0 - .25 Acres	USF - USDA Forest Service
Campfire #1	30	7	2007	200	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Camp Fire#3	11	6	2006	1200	9 - Miscellaneous	0.01	A	A - 0 - .25 Acres	USF - USDA Forest Service
Bear Trap	15	8	2010	1000	4 - Campfire	0.05	A	A - 0 - .25 Acres	USF - USDA Forest

Campfire									Service
Red Rock	19	7	2005	6000	9 - Miscellaneous	2	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
	8	5	1992	200	1 - Lightning	0.2	A	A - 0 - .25 Acres	USF - USDA Forest Service
El Rito ACF	26	6	2013	150	4 - Campfire	0.01	A	A - 0 - .25 Acres	USF - USDA Forest Service
Camp Fire1	7	5	2006	125	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Red Rock #2 ACF	28	5	2012	146	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Red Rock	24	5	2003	0	1 - Lightning	0.5	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
	4	7	1994	100	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Potrero #3 ACF	30	5	2011	250	4 - Campfire	0.01	A	A - 0 - .25 Acres	USF - USDA Forest Service
	3	8	1972	50	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
	9	8	1993	200	1 - Lightning	0.3	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
	20	6	1982	0	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Campfire	13	6	2009	500	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Potrero #2 ACF	30	5	2011	250	4 - Campfire	0.02	A	A - 0 - .25 Acres	USF - USDA Forest Service
La Cueva	21	7	2012	2800	1 - Lightning	0.5	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
El Rito ACF #2	22	6	2013	150	4 - Campfire	0.01	A	A - 0 - .25 Acres	USF - USDA Forest Service
Garcia	7	7	2000	2000	1 - Lightning	0.3	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
Red Rocks #4 ACF	28	5	2012	146	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Red Rocks #3 ACF	28	5	2012	146	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Laguna	20	7	2005	3000	1 - Lightning	0.5	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
La Jara 2	8	7	2002	2000	1 - Lightning	0.2	A	A - 0 - .25 Acres	USF - USDA Forest Service
El Rito ACF #1	22	6	2013	150	4 - Campfire	0.01	A	A - 0 - .25 Acres	USF - USDA Forest Service
Campfire #5	30	7	2006	500	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Red Rocks #5 ACF	28	5	2012	146	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Potrero #1 ACF	30	5	2011	200	4 - Campfire	0.01	A	A - 0 - .25 Acres	USF - USDA Forest Service
Dip Site	30	5	2011	200	4 - Campfire	0.01	A	A - 0 - .25 Acres	USF - USDA Forest Service
Johnson	2	7	2001	800	1 - Lightning	0	A	A - 0 - .25 Acres	USF - USDA Forest Service
Red Rocks #7 ACF	28	5	2012	146	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Red Rocks #6 ACF	28	5	2012	146	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Utes	13	7	2004	600	1 - Lightning	0.25	A	A - 0 - .25 Acres	USF - USDA Forest Service
	2	6	1989	500	1 - Lightning	0.7	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
Canyon	24	6	2002	10000	1 - Lightning	2.5	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
La Jara #1 ACF	4	6	2012	146	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
La Jara #1	23	8	2010	250	4 - Campfire	0.2	A	A - 0 - .25 Acres	USF - USDA Forest Service
Campfire 2	28	5	2006	500	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
La Jara #2	23	8	2010	250	4 - Campfire	0.2	A	A - 0 - .25 Acres	USF - USDA Forest Service
Amarilla Fire	12	4	2013	9250	1 - Lightning	0.25	A	A - 0 - .25 Acres	USF - USDA Forest Service
559/173 Campfire	8	7	2006	200	4 - Campfire	0.01	A	A - 0 - .25 Acres	USF - USDA Forest Service
	18	8	1991	0	1 - Lightning	0.4	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
La Cueva	30	8	1995	300	1 - Lightning	0.5	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
	20	7	1971	300	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
	4	12	1977	50	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
	30	7	1982	0	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
	11	8	1972	50	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
	28	4	1982	0	1 - Lightning	2	B	B - .26 - 9.9 Acres	USF - USDA Forest Service

	22	7	1984	0	7 - Arson	0.1	A	Acres	Service
								A - 0 - .25 Acres	USF - USDA Forest Service
Yellow Rock	26	7	2009	500	1 - Lightning	0.25	A	A - 0 - .25 Acres	USF - USDA Forest Service
Gato	22	6	2004	2200	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Spring	2	9	1997	300	1 - Lightning	1	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
Cueva	16	7	2004	1600	1 - Lightning	0.25	A	A - 0 - .25 Acres	USF - USDA Forest Service
La Jara # 3	8	7	2002	500	1 - Lightning	0	A	A - 0 - .25 Acres	USF - USDA Forest Service
Potrero	16	6	2003	0	1 - Lightning	1	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
Campground	23	6	1996	2600	1 - Lightning	1	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
	3	3	1972	300	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
La Jara	27	5	2000	80000	4 - Campfire	35	C	C - 10 - 99.9 Acres	USF - USDA Forest Service
	6	5	1981	0	1 - Lightning	1	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
Sandoval	27	5	2003	0	1 - Lightning	3	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
La Jara #2	8	7	2002	900	1 - Lightning	0	A	A - 0 - .25 Acres	USF - USDA Forest Service
Oso Fire	27	7	2011	25000	1 - Lightning	3.6	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
La Jara #1	8	7	2002	1200	1 - Lightning	0	A	A - 0 - .25 Acres	USF - USDA Forest Service
Fur Fire	25	6	2009	2500	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Windy	7	9	2001	10000	1 - Lightning	12	C	C - 10 - 99.9 Acres	USF - USDA Forest Service
	11	6	1973	1000	1 - Lightning	2	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
	13	7	1976	1000	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
	15	6	1974	300	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
	17	8	1983	0	1 - Lightning	2	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
	6	11	1976	50	5 - Debris burning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
La Jara	20	5	1999	5000	3 - Smoking	5.5	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
Chalejo	17	7	2004	1000	1 - Lightning	0.25	A	A - 0 - .25 Acres	USF - USDA Forest Service
Pt Fire	4	8	2011	3000	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Maton	12	7	2000	600	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
	29	6	1990	200	1 - Lightning	0.3	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
	21	7	1974	300	1 - Lightning	2	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
	10	8	1990	1700	1 - Lightning	1.3	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
Sierra	20	7	2006	1200	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Laker	9	7	2001	500	1 - Lightning	0.5	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
Grabiell	28	7	2000	500	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
	22	8	1980	0	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
	9	7	1980	0	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Maria	10	7	1995	200	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
	9	5	1974	1000	1 - Lightning	2	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
Ojito Chico	16	5	2006	1100	1 - Lightning	0.25	A	A - 0 - .25 Acres	USF - USDA Forest Service
Jose	10	7	1995	200	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Ridge	6	8	1995	300	1 - Lightning	2.5	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
Aspen	28	5	2002	2500	1 - Lightning	1.5	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
Spruce	22	8	2007	400	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Chico	16	7	2005	3000	1 - Lightning	0.5	B	B - .26 - 9.9 Acres	USF - USDA Forest Service
	18	7	1993	300	4 - Campfire	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
Pj	9	7	2001	300	1 - Lightning	0	A	A - 0 - .25 Acres	USF - USDA Forest

									Service
	5	9	1973	300	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
	17	6	1974	300	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
	10	7	1984	0	5 - Debris burning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
	5	8	1978	50	2 - Equipment use	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
	29	5	1989	100	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
	19	6	1974	300	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
	25	6	1971	1000	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service
	2	9	1981	0	1 - Lightning	0.1	A	A - 0 - .25 Acres	USF - USDA Forest Service

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