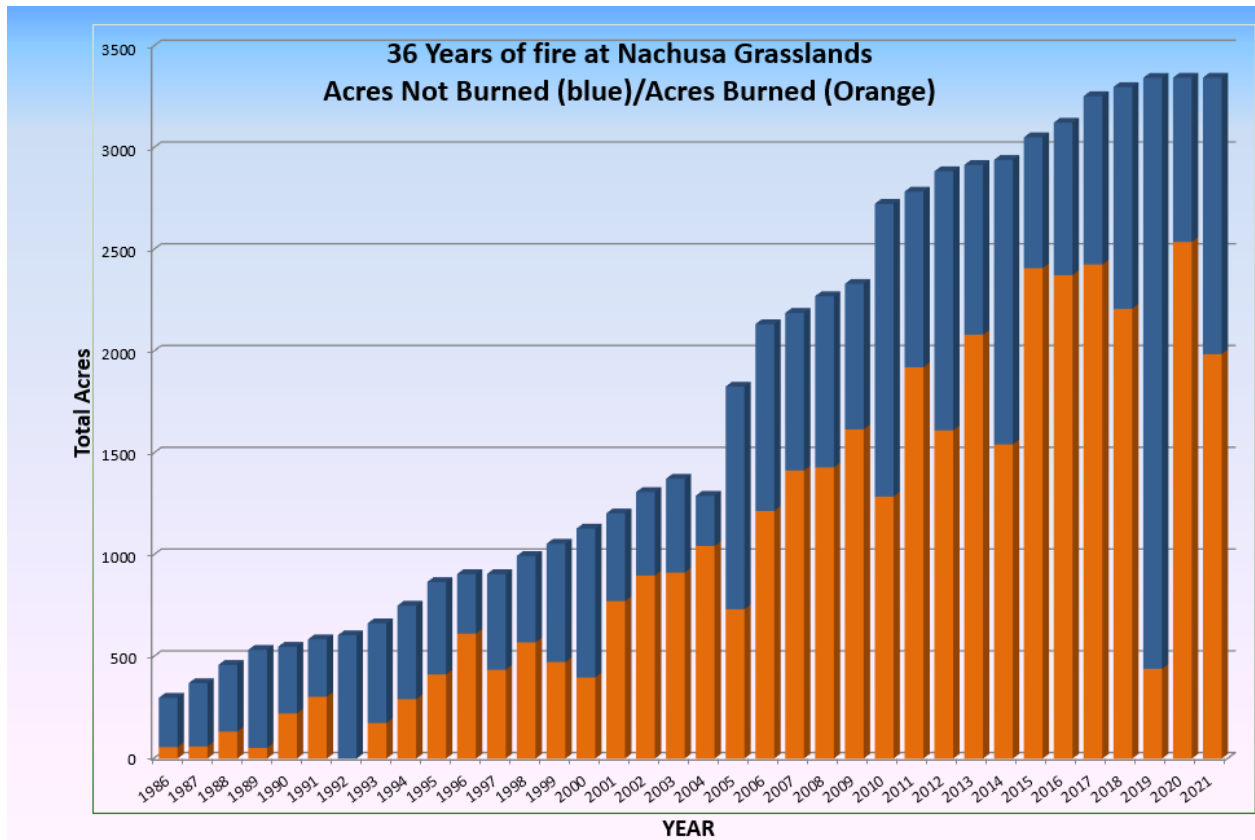


Nachusa Grasslands Prescribed Fire Program

Summary Report and lessons learned Fall 2021 through Spring 2022

By Bill Kleiman | The Nature Conservancy | Project Director | April 28, 2022

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The bottom line:

We burned 3 units in the fall and 14 units in the spring. Our spring sent waves of showers that lowered our number of good weather days to just 14, and some of those fire days were damp.

This year, we burned 1,988-acres at Nachusa.

We also burned an additional 321-acres of adjacent tracts, one at our neighboring DNR Franklin Creek Natural Area.

We had 17 total burn units, with 14 of those fires at Nachusa.

We did have 7 burn units that were prepped but we did not get to burning.

The average burn unit acreage was a record for us at 142-acres. One big unit was a record at 670-acres, where we burned three big units in one day that typically takes one day for each unit. Bigger burn units are a good strategy to get more fire on the ground.

We had only 14 burn days, and we grabbed about every day we could. We were desperate enough that we burned one day when it rained the night before. Last year we had 23 burn weather days and we set a record in acres burned. We can't make the weather cooperate. This spring it rained every few days with some days having high winds. We burned on some damp days we normally would have sat out.

We burned weekends and weekdays.

On wind direction, we did not have any southeast or east winds.

We are burning our oak woods almost annually. We have a lot of invasive honeysuckle in our woods that we are slowly treating one by one with basal bark herbicide. The fires top kill these shrubs, which then resprout and need a few seasons to grow big enough to produce flowers, fruits, and seeds. While

these shrubs are growing the ground layer woodland flora can increase in cover.



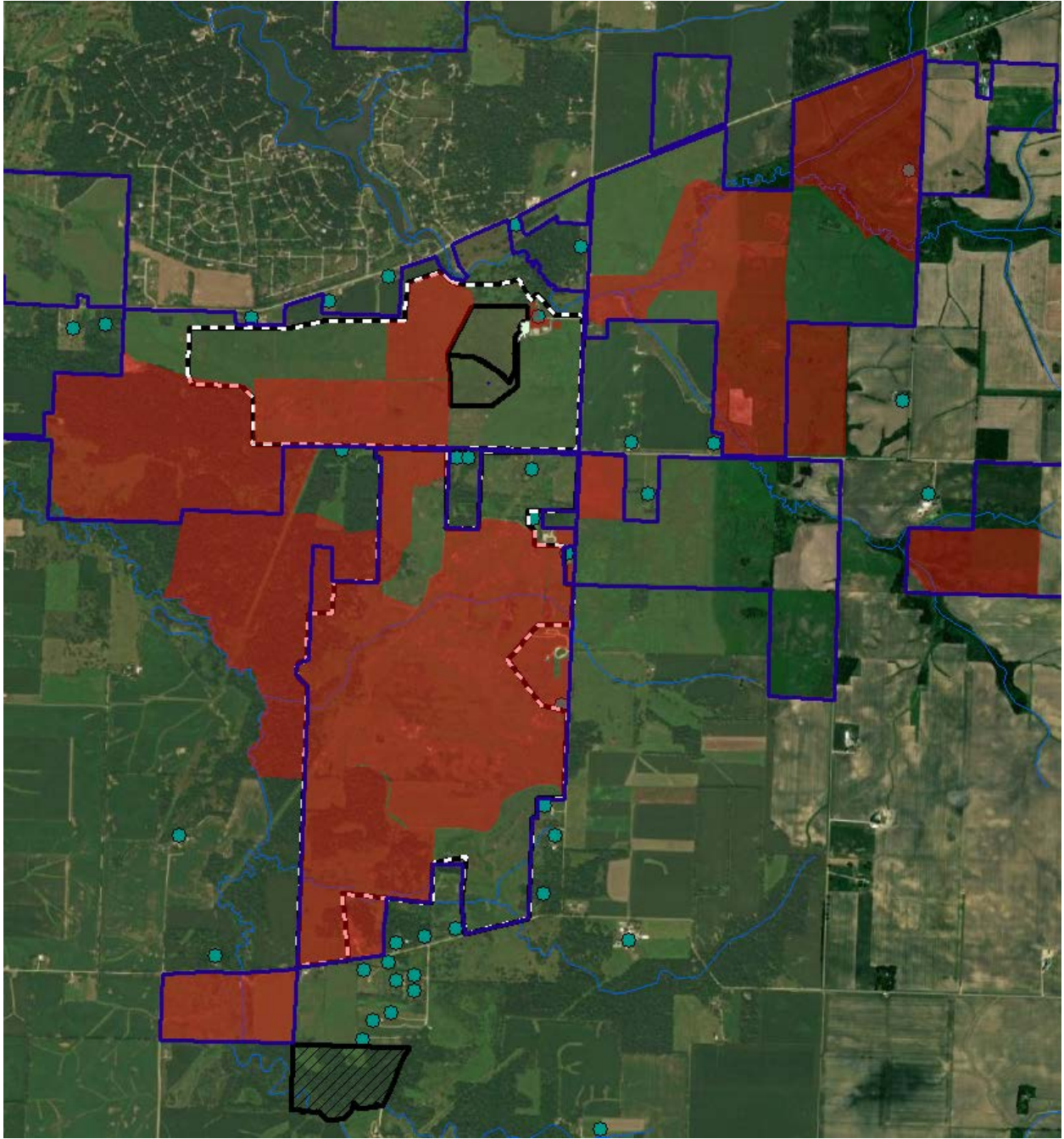
Above is Phil Nagorny and Matt Nugent, who were on most fires this year and got a lot of brush work accomplished. Phil is our Land Steward and Matt our Resident Fellow. Matt just left us and started a job for TNC in Missouri.



The flail mower above is now a year old and it is a keeper. This will mow very short and shred the material.



The flail mower creates an ordered fire break from chaos. This line was previously cleared of stumps and fallen trees.



Above map shows the units we burned, with the southern hash marked unit being at Franklin Creek Natural Area.



Our equipment faces out ready to leave for the day. Early helpers show up and follow an equipment check list to get us ready to go. We tend to start briefings on time. We hand out maps and a roster. We tend to pull away from the barn in less than 30 minutes after the briefing starts.

Tuesday April 12, 2022 Heinkel and 1420				
weather at noon 60 deg, SE 18, 45%, Haines 4				
Burn Boss: Bill Kleiman w white truck				
Clockwise Team			Counter Clockwise	
Line boss: Matt Nugent Silver truck, Gator 3, Gator 1			Line boss: Phil Nagorny Mule 5, Gator 4,	
Elizabeth Bach			Kevin Kaltenbach	
Paul Mellen			Dave Brewer	
Stew Pegenstecher			Paul Swanson	
			Shel Wilks	
			Guests: w Cody in Z: Rep Tom Demmer, and Rep Keicher w spouse	
Fire Scout (s):				
Tender: in black near start			spare:	
Log record for fire				
Time	Temp	RH	20 ft wind speed/direct	Comments (Smoke dispersal, fire behavior, observations)
				Briefing start
				Test & start
				Fire wrung
				AAR

Above is a typical roster. The burn unit map would be on the flip side. Handing to crew as they arrive a prepared map and roster makes the briefings go faster and better. Crew can see expected weather, the chain of command, names of those who will be on their line, what vehicles they will use. In this case we had guest visitors from our Illinois State House of Representatives. I type this roster about a half hour before the briefing.



Before leaving the barn crews check out their equipment.



Ready for test ignition. Above, crews are working out which vehicle go first, and other last-minute details. Teresa Smith is ready to go.



A few minutes later, this crew is igniting counter-clockwise. A nice fire break is there. This bison grazed prairie burns slower than un-grazed prairie.



Photo above is after a modest fire of an oak woodland/savanna at our neighboring Franklin Creek Natural Area. This wet spring made the oak litter hold enough moisture that the burn result is patchy. This woodland needs to be thinned of the little trees which are not oaks, which will support young oaks trying to grow. Oak and hickory love sunshine, and therefore fire. Here is a video clip showing the modest fire we had in this woods: <https://youtu.be/L8I9tTePBcY>



The red headed woodpecker is the poster child for fire in the oak woods. These woodpeckers nest in cavities in old trees. They like to hunt insects. Oaks have a lot of insects that live on them. These woodpeckers make short flights out from a branch to catch an insect in flight, like a flycatcher. Oaks do well with fire because fire keeps other brush and trees in check. Oaks have a thick bark that resists fire, and if young oaks are top killed by fire they readily re-sprout. The acorn mast of oaks feeds turkey, and much other wildlife. (photo from Cornell)



Bobcat photographed in an oak woods that appears to be carrying prey about the size of a rabbit.



A long fire line being patrolled.

A video clip from the CCK NE unit: <https://youtu.be/Ke1FqaOiq2Q>



Eric Bugvilionis travelled out from Chicago to help us burn many times. He works at our Indian Boundary Prairies Project.



Paul Say is an engineer by day and steward with us on weekends and vacations. A wet line is being sprayed that Paul will ignite right next to the wet vegetation. The winds blows from right to left in this photo.



The MRCP Fecon 200 worked much of the winter and spring at Nachusa, and McCune Sand Prairie, and Green River Conservation Area. Operators were Phil Nagorny, Damian Considine, Matt Nugent, and Bill Kleiman. I made a fancy slide show with Adobe Spark about one project we did two winters back: <https://spark.adobe.com/page/tJeXFdSRLvy2s/>



Still time to register for the Fire Council Symposium!

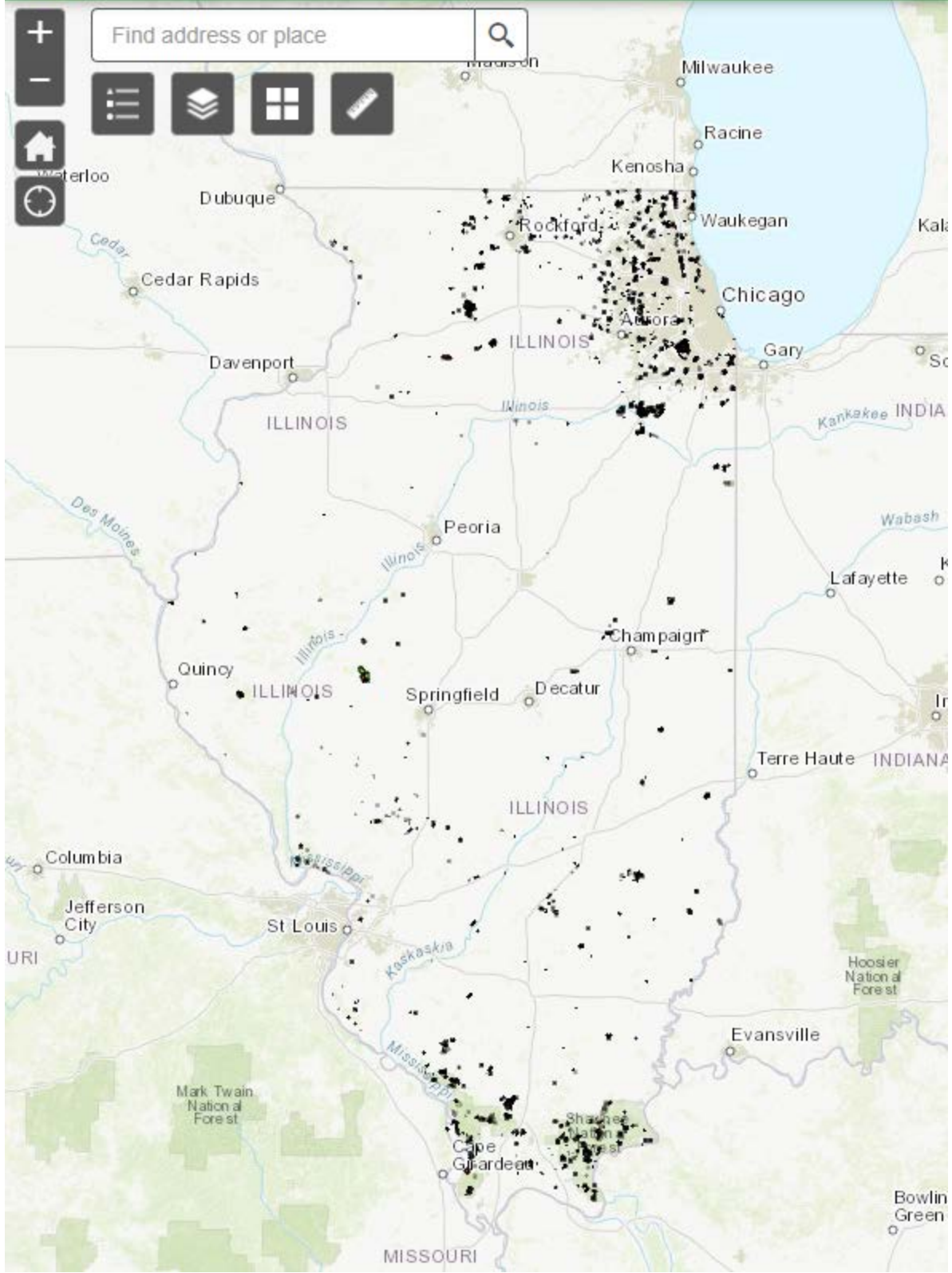
<https://www.illinoisprescribedfirecouncil.org/agenda1.html>

How do we increase the number of acres burned? We are pondering these ideas:

- Burn more units in the fall when some years the woods are drier than in the spring
- Combine smaller units into bigger units
- Have an afternoon shift of crew to help burn until later in the day
- Continue to improve our fire breaks
- Keep equipment in order and all those other good habits



Annual Illinois Prescribed Fires Accomplished



The 6-year summary from our map of all Illinois Prescribed Fires Accomplished shows the good fire work of our colleagues. <https://www.illinoisprescribedfirecouncil.org/annual-data-summary.html>

A LIST OF ALL NACHUSA FIRES AND FIRE CREW FOLLOWS

Fires done by Nachusa Grasslands crew from Fall 2021 to Spring 2022												
Date	Day of week	Ownership	Unit Name	Burn boss	Acres TNC	Acres other TNC lead & assist	Acres others Assist	Temp high	Humidity low	Wind direction	Wind speed	Crew size
11/23/2021	Tu	TNC	CCK W Gobbler	BK	141			44	28	S	17	12
12/2/2021	Th	TNC	Stonebarn Farm	Dale Maxson (t) under BK	77			56	37	WNW	7	10
12/4/2021	Saturday	TNC	Meiners Wet	BK	85			41	30	NW	8	10
3/4/2022	F	DNR	GRCA		0		860					
3/14/2022	M	TNC	Sand Farm	BK	160			55	55	SSW	16	12
3/14/2022	M	TNC	HLP	BK	160			55	55	SSW	16	12

Date	Day of week	Ownership	Unit Name	Burn boss	Acres TNC	Acres other TNC lead & assist	Acres others Assist	Temp high	Humidity low	Wind direction	Wind speed	Crew size
3/16/2022	W	BCSW	McCune LWR	R Blogg	0		100	55	55	S	20	10
3/17/2022	Th	TNC	CCK NE	BK	171			64	54	N	4	11
3/17/2022	Th	TNC	Hotchkiss NW	BK	20			65	49	N	9	11
3/21/2022	M	TNC	Main	BK	400			70	42	SW	16	16
3/27/2022	Sn	TNC	Dot Doug plantings	BK	32			32	36	NW	9	12
3/27/2022	Sn	TNC	CCK Gobbler bottoms re-ignition	BK	5			32	36	NW	9	12

Date	Day of week	Owners hip	Unit Name	Burn boss	Acres TNC	Acres other TNC lead & assist	Acres others Assist	Temp high	Humidity low	Wind direction	Wind speed	Crew size
3/28/2022	M	TNC	Lowden Road	BK	53			33	36	NE	7	12
3/28/2022	M	TNC	HP central, HH, dropseed garden	BK	58			33	36	NE	7	12
4/11/2022	M	land neighbor	Wal, Dahl, Big Woods, Stonebarn Savanna	BK	404	266		55	47	W	14	14
4/12/2022	M	TNC	Heinkel EW 1420	BK	165			60	42	W	14	10
4/16/2022	Sa	DNR	FCNA W Twist N Creek	BK	0	55		40	56	NW	17	6
4/21/2022	Th	TNC	Soderholm Vassalo LWR	BK	57			64	54	W	17	6

Nachusa Grasslands			
Crew who participated in Fall 2020 to Spring 2021 prescribed fires			
(Let me know if I missed you.)			
First name	Last Name	# of fires	Comments
Keith	Anderson	1	
Kaleb	Baker	3	line boss
Elizabeth	Bach	6	
Russell	Blogg	1	
Dave	Brewer	7	New Nachusa crew
Russell	Brunner	1	
Eric	Bugvilionis	12	Thanks for all these fires
Mickey	Cardenas	2	
Russell	Cerocke	3	
Cody	Considine	11	line boss
Damian	Considine	5	line boss
Molly	Duncan	1	
Mike	Heng	7	
Mark	Herman	8	
Matt	Hokanson	1	
Kevin	Kaltenbach	13	Thanks for all these fires
Leah	Kleiman	1	
Bill	Kleiman	16 bb	451 times burn boss
Susan	Kleiman	6	line boss
Dale	Maxson	1	burn boss t
Paul	Mellen	4	
Phil	Nagorny	9	line boss
Matt	Nugent	11	line boss
Elizabeth	Owen (IOFO)	1	line boss
Stew	Pegenstecher	3	
Emily	Pfeiffer	1	
Joe	Richardson	10	scout
Bill	Richmond	1	
Paul	Say	7	
Tim	Smith	1	
Teresa	Smith	1	
Paul	Swanson	1	
Matthew	Togger	3	
Shane	Tripp	2	line boss
Bryon	Walters	2	
Shel	Wilks	5	

Thank you for reading our report. Our past reports can be found on the Friends website:

<https://www.nachusagrasslands.org/controlled-burns.html>

Reports from other agencies are on the IL Rx Fire Council site:

<https://www.illinoisprescribedfirecouncil.org/prescribed-burn-reports.html>

The End