TDI InsurED

TEXFIRS program

October 11, 2022

TDI | Objectives

- Texas Fire Incident Reporting System (TEXFIRS) / National Fire Incident Reporting System (NFIRS)
- 2021 Data
- Documenting a complete incident
- Data quality
- Data use
- Reporting in NFIRS
- Online tools and resources

TDI | TEXFIRS program

- Texas State Fire Marshal's Office
- Texas Government Code Section 417.0052
- Compiles statistical data from NFIRS

TDI | TEXFIRS program

Reporting to NFIRS is reporting to TEXFIRS

- State-level representatives for NFIRS.
- Ensure data quality.
- Provide training.
- Upload incident reports to the NFIRS database.

TDI | NFIRS

- NFIRS is the world's largest, national database of fire incident information.
- Every U.S. state and the District of Columbia report NFIRS data.
- NFIRS comprises about 70% of all reported fires that occur annually.
- 24,000 fire departments reported 30 million incidents, including1.2 million fires in NFIRS.

TDI | Texas reported incident facts

There are over 1,800 Texas fire departments. Less than 50% reported.

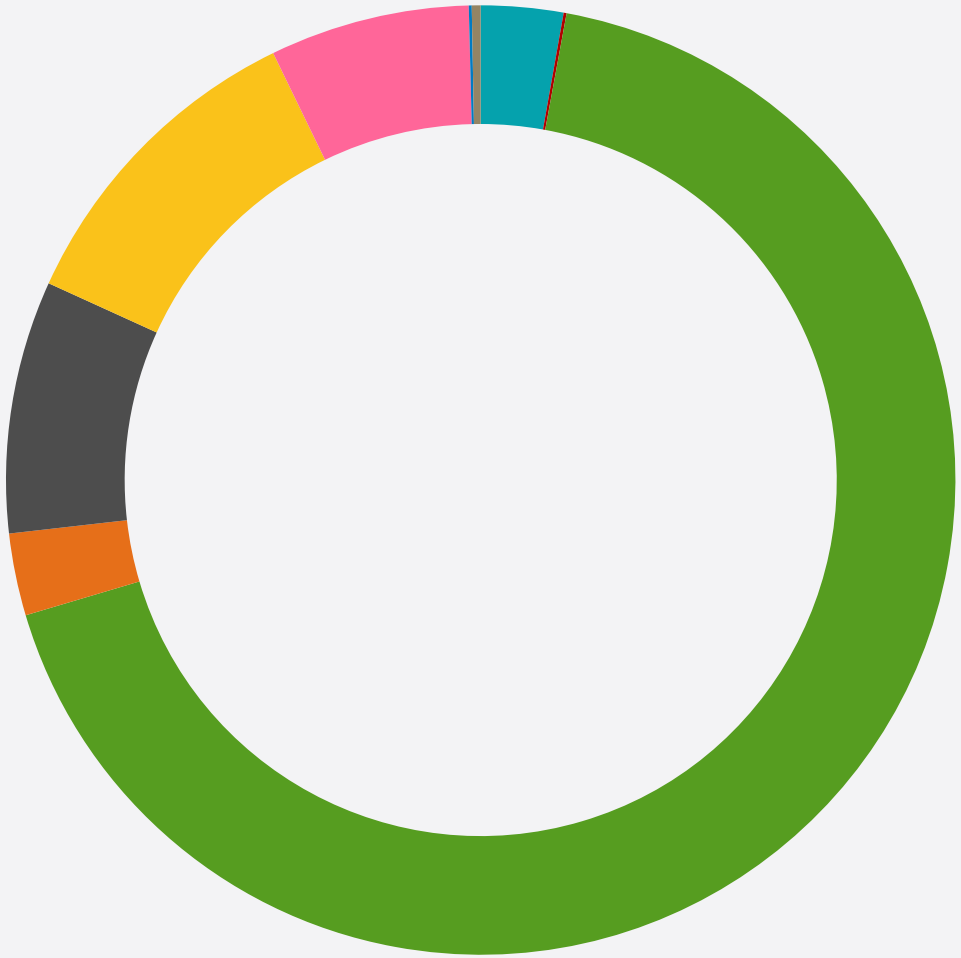
877
Fire departments reported

84,751
Fires

2.6 million
Incidents

$769.5 million
Fire loss

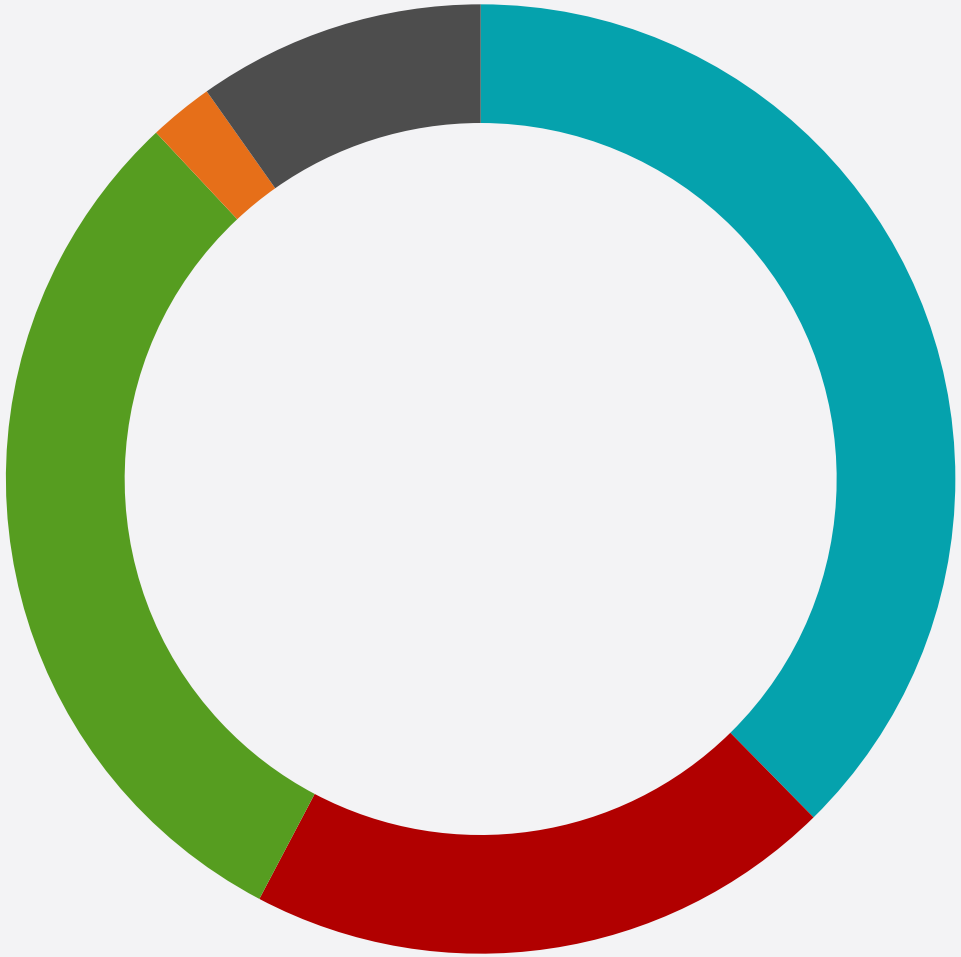
TDI | NFIRS Texas call data



2021 calls by category

Type	Fires	Percent of all fires
100s – Fires	84,751	3.3%
200s – Overpressure, explosions	2,688	0.1%
300s – EMS	1,720,316	67.5%
400s – Hazardous conditions	72,366	2.8%
500s – Service calls	218,326	8.6%
600s – Good intent calls	293,941	11.0%
700s – False alarm, malicious	172,357	6.8%
800s – Weather, natural disasters	1,736	0.1%
900s – Special incidents	8,035	0.3%

TDI | NFIRS Texas fire data



2021 reported fires

Type	Fires	Percent of all fires
Structure	26,631	32%
Vehicle	14,218	17%
Natural vegetation	21,422	25%
Outdoor rubbish	15,551	18%
Other	6,929	8%

TDI | How is your fire department reporting?

- Is your department reporting?
- Are all calls documented?
- Are reports accurate?
- Is all known information provided?
- Do you review reports?
- Do you misuse “unknown”, “undetermined”?
- Are reports updated?
- Is your data reliable?

TDI | A complete incident report

Facts

Cause of ignition:

- Heat source
- Contributing factors
- Area of origin
- Contributing equipment
- Dollar loss

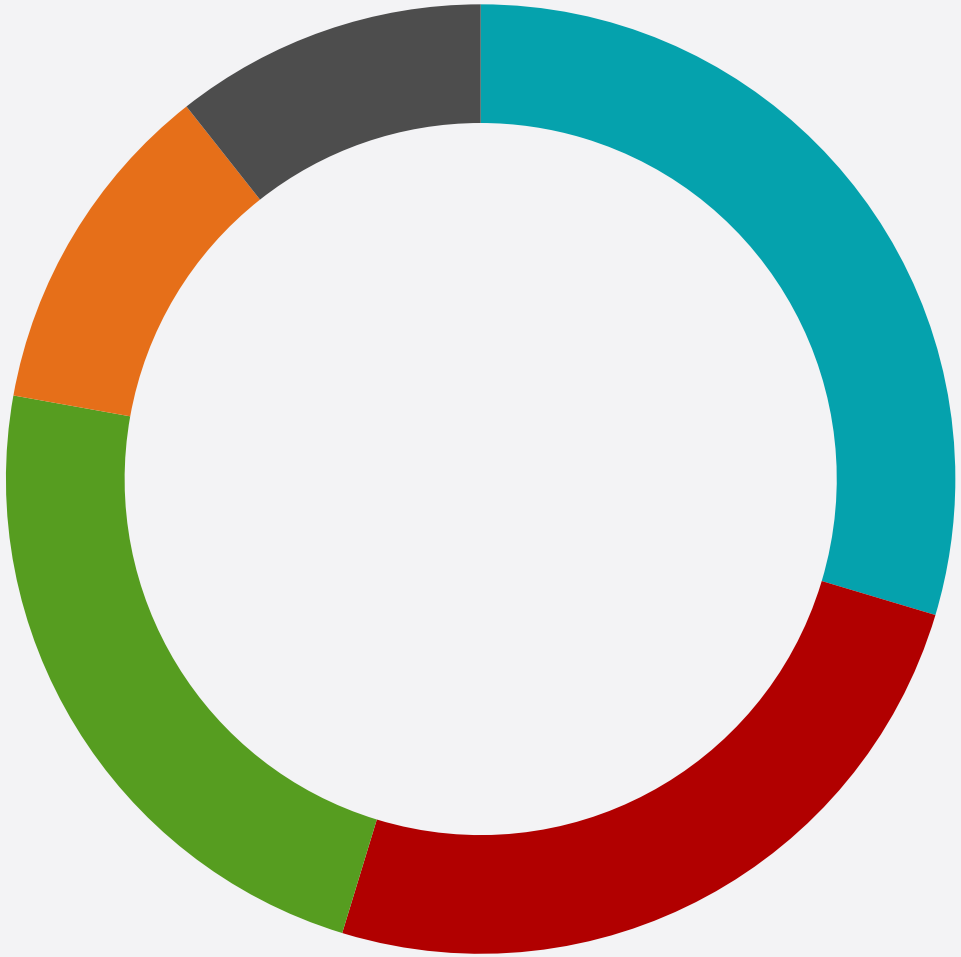
Updates

- Good data requires updates.
- Update the incident report even after it is submitted.

TDI | Good data is…

- **Timely:** Entered soon after the fire incident occurs.
- **Accurate:** Accurate as possible. Update as information becomes available.
- **Reliable:** Incident types are added using the same codes, terms, and according to NFIRS coding guides.
- **Complete**:
  - All required fields.
  - All fields needed to report the incident details and response.

TDI | NFIRS Texas fire data



2021 unresolved fires

Type	Fires	Percent of all fires
Structure	3,921	63%
Vehicle	3,320	5%
Natural vegetation	3,058	1%
Outdoor rubbish	1,528	8%
Other	1,408	23%

TDI | Why is reporting incidents important?

- Illustrates the magnitude of the fire problem.
- Indicates fire severity.
- Targets fire prevention programs.
- Evaluates the cost effectiveness.
- Determines the amount of money that should be spent.
- Better data reduces fires, which reduces risk to firefighters.

TDI | Dollar loss estimate

- Dollar loss is an estimation.
- Include contents damaged by fire, smoke, water, and overhaul.
- Don’t include indirect loss, such as business interruption.
- Leave fields blank when the value is unknown.
- Use the International Code Council’s building valuation data formula.

TDI | Texas loss statistics

In 2021, there were 84,751 reported fires.

$562.4 million
in property loss

$239.9 million
in contents loss

$802.3 million
in total loss

TDI | Data quality

- Adopt a standard operating procedure.
- Designate a “data champion” to ensure quality control.
- Be diligent in entering complete and accurate data and correcting any errors that come up.

TDI | Valid vs. invalid incidents

Incident Valid Status	Total	Percent
No Activity	155	N/A
Valid	2,513,238	98%
Invalid	61,465	2%
Grand Total	2,574,703	100%

TDI | Data use

Incident data supports justifications for a fire department's resources and training needs, such as:

- Plan station relocations
- Train personnel
- Funding program requirements
- Justify budgets
- Fire prevention programs
- Legislation

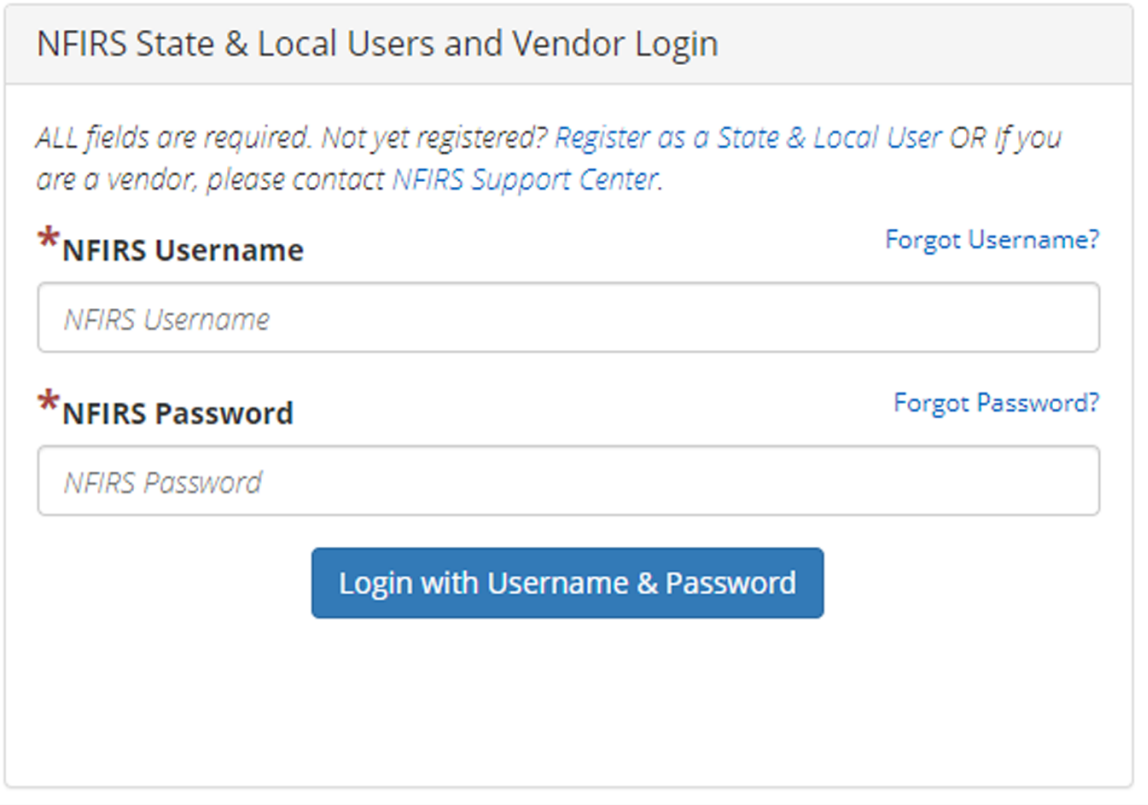
TDI | Who uses this data?

- Even if you don't personally use data directly, somebody is still looking at numbers, still working on a product, still trying to quantify the fire problem.
- Decisions are made based on the information that is and that is NOT in the reporting system.
- Federal programs
- Private industry organizations
- National associations for home appliance product manufacturers
- Hotel and motel industry
- Insurance companies, attorneys, and many others

TDI | How to register for a NFIRS user ID

Visit the FEMA NFIRS website:

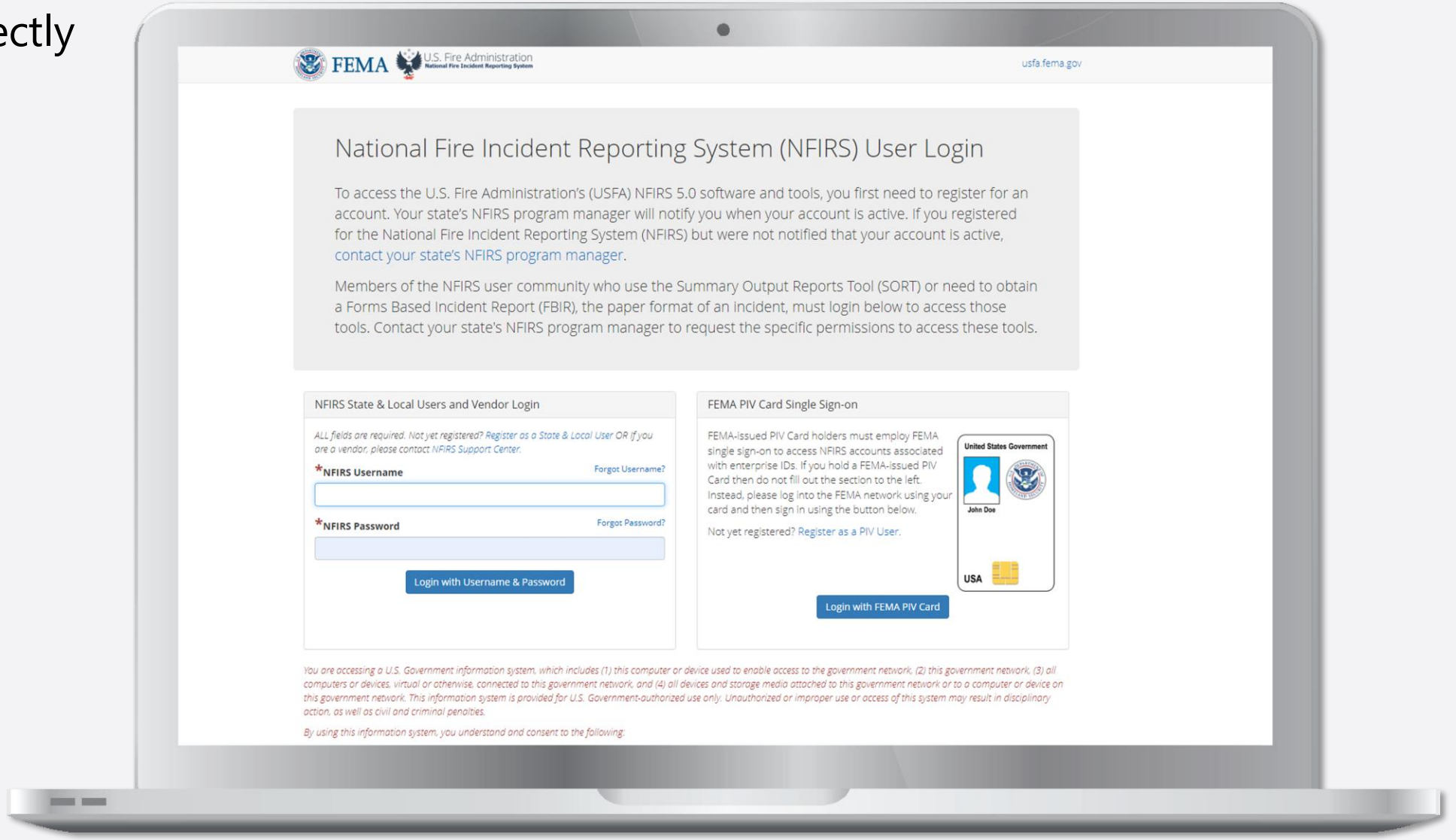
- Select **Register as a State or Local User.**
- Enter your information and submit.
- You will receive an email from TEXFIRS to complete your registration.



TDI | Reporting directly to NFIRS

Enter incidents directly into eNFIRS.

- Log in to eNFIRS
- Click on Incidents.
- Create incident.



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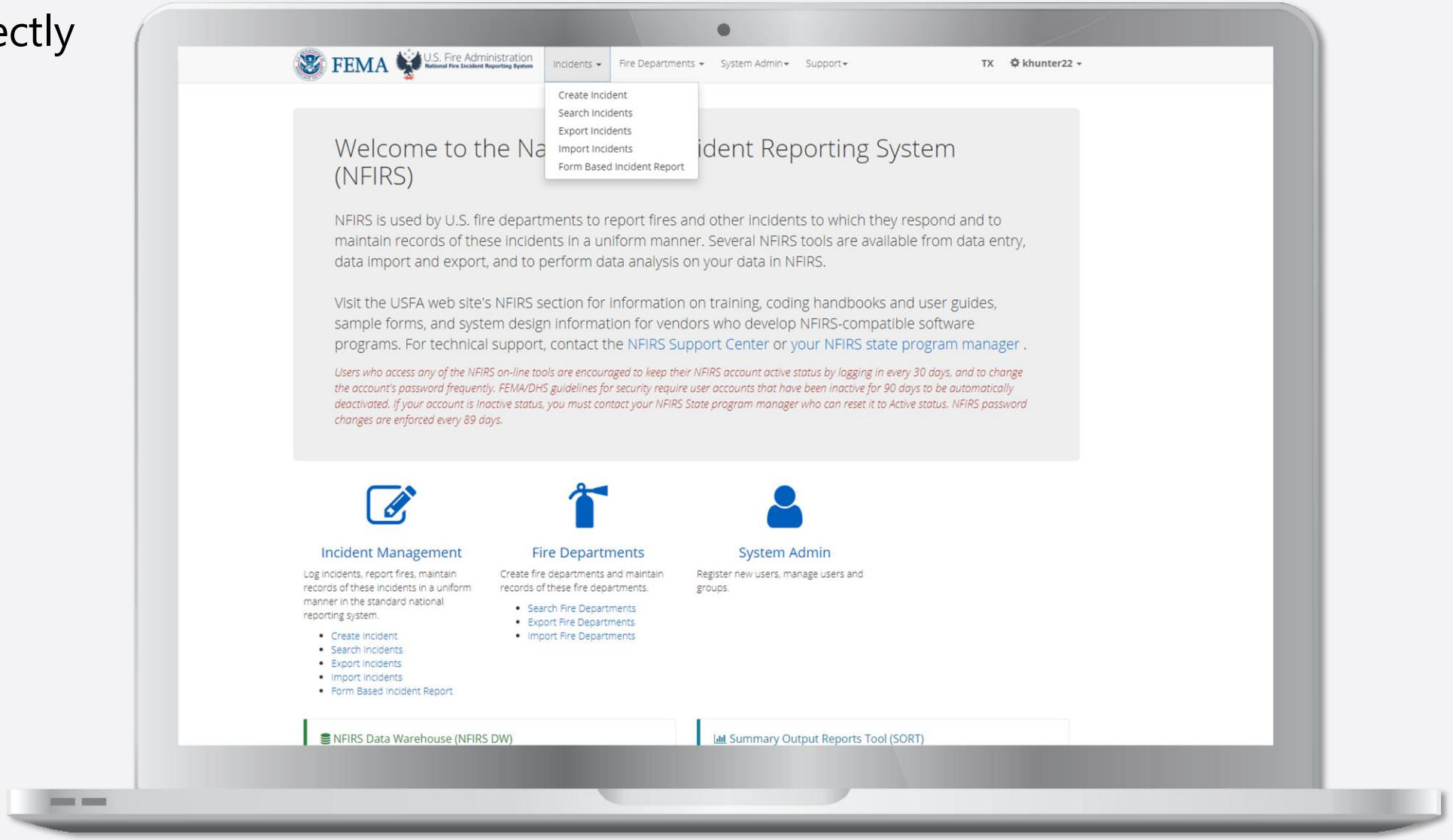

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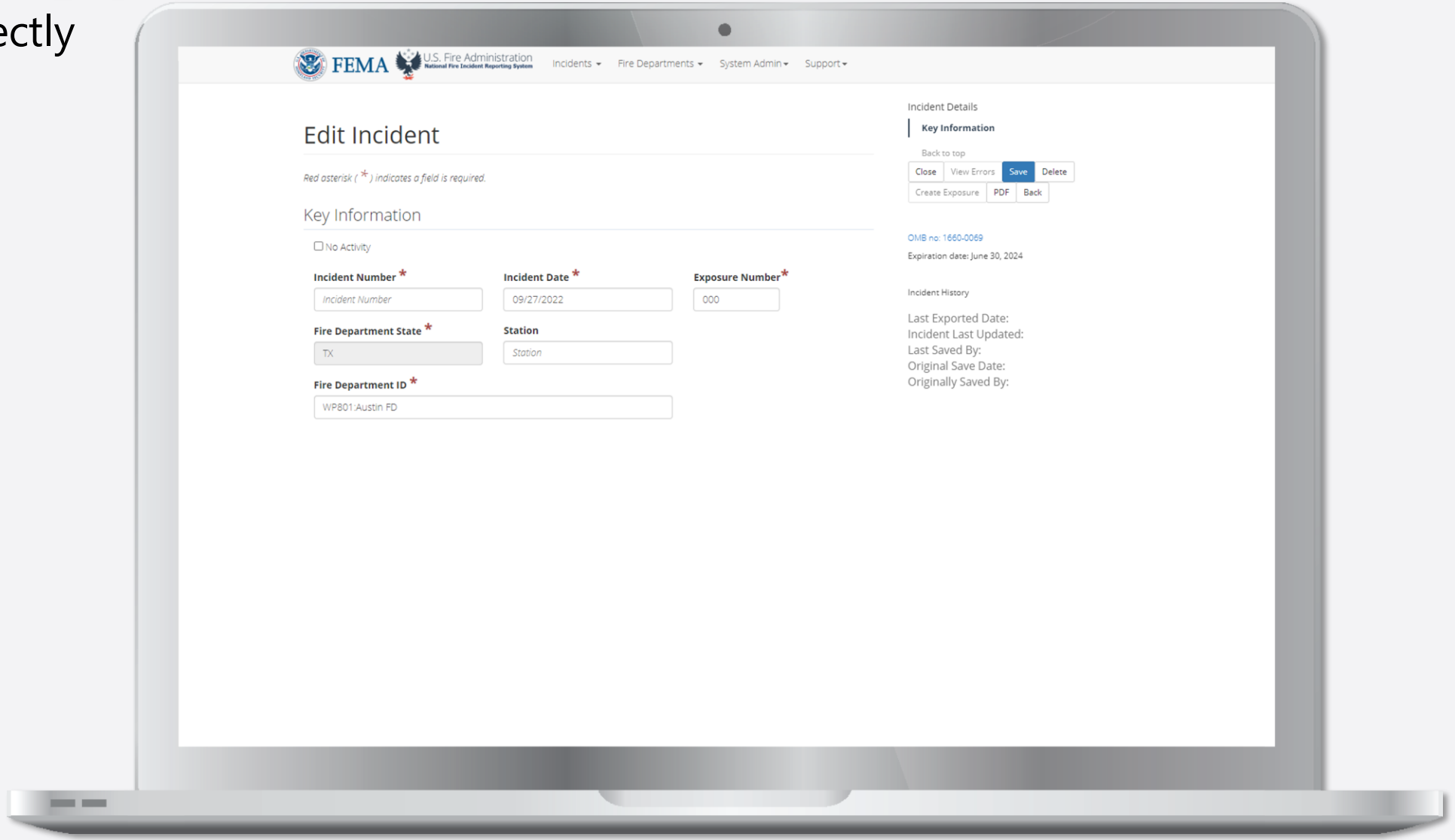

TDI | NFIRS – Bulk Import Utility Tool

Use the bulk import utility tool.

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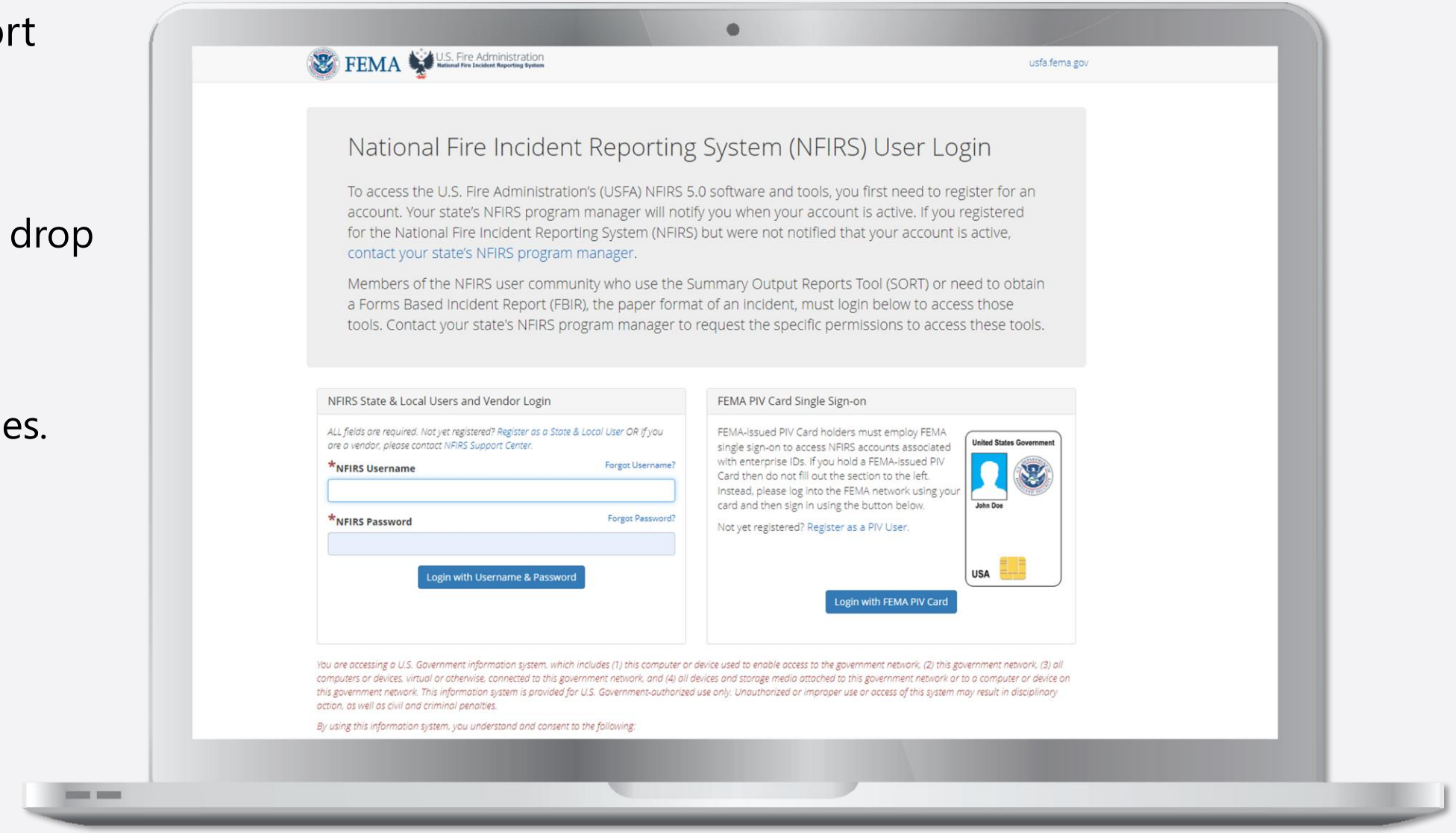
- Click on Incidents drop down.
- Import incidents.
- Choose up to 3 files.
- Import files.



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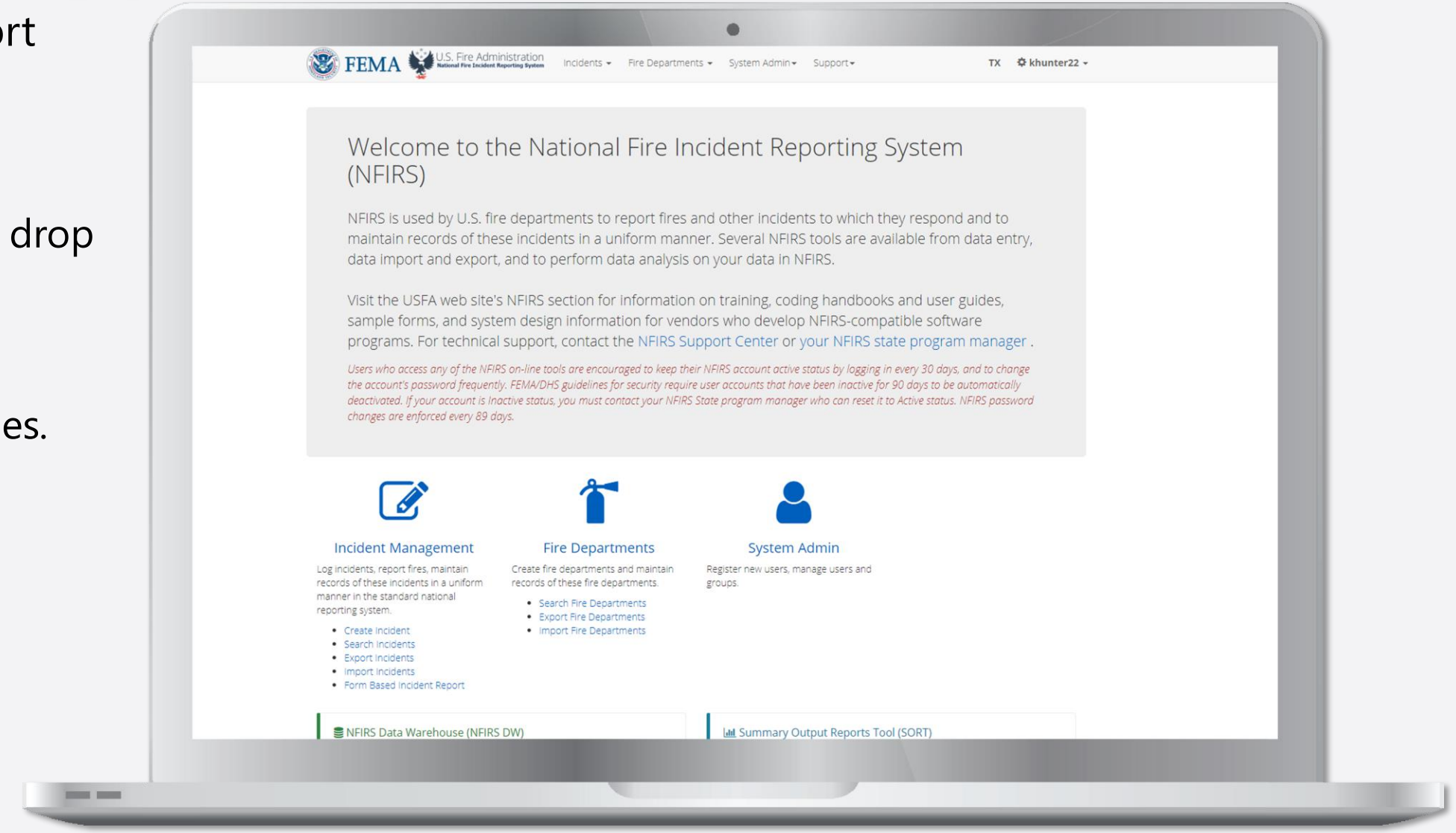

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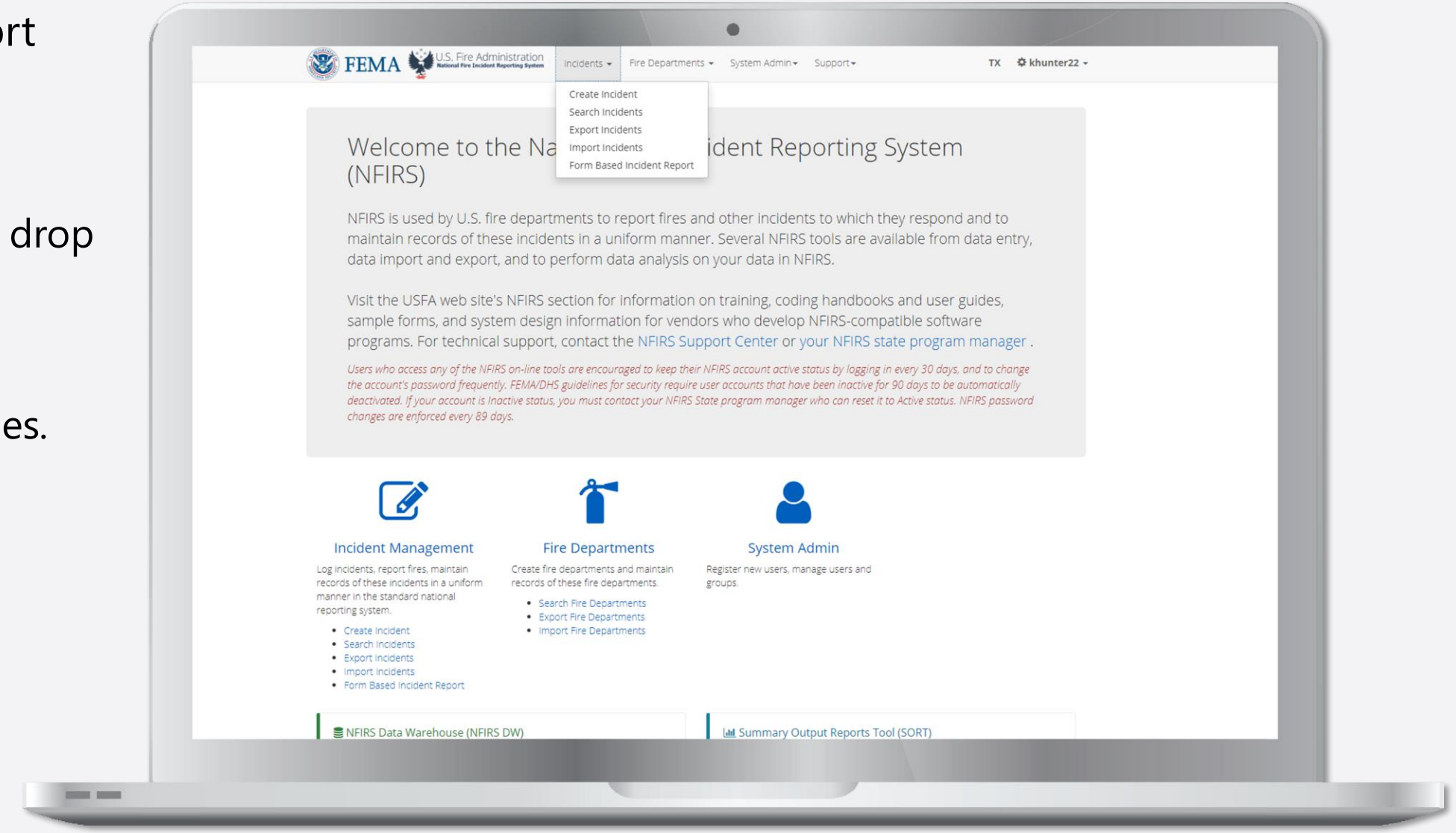

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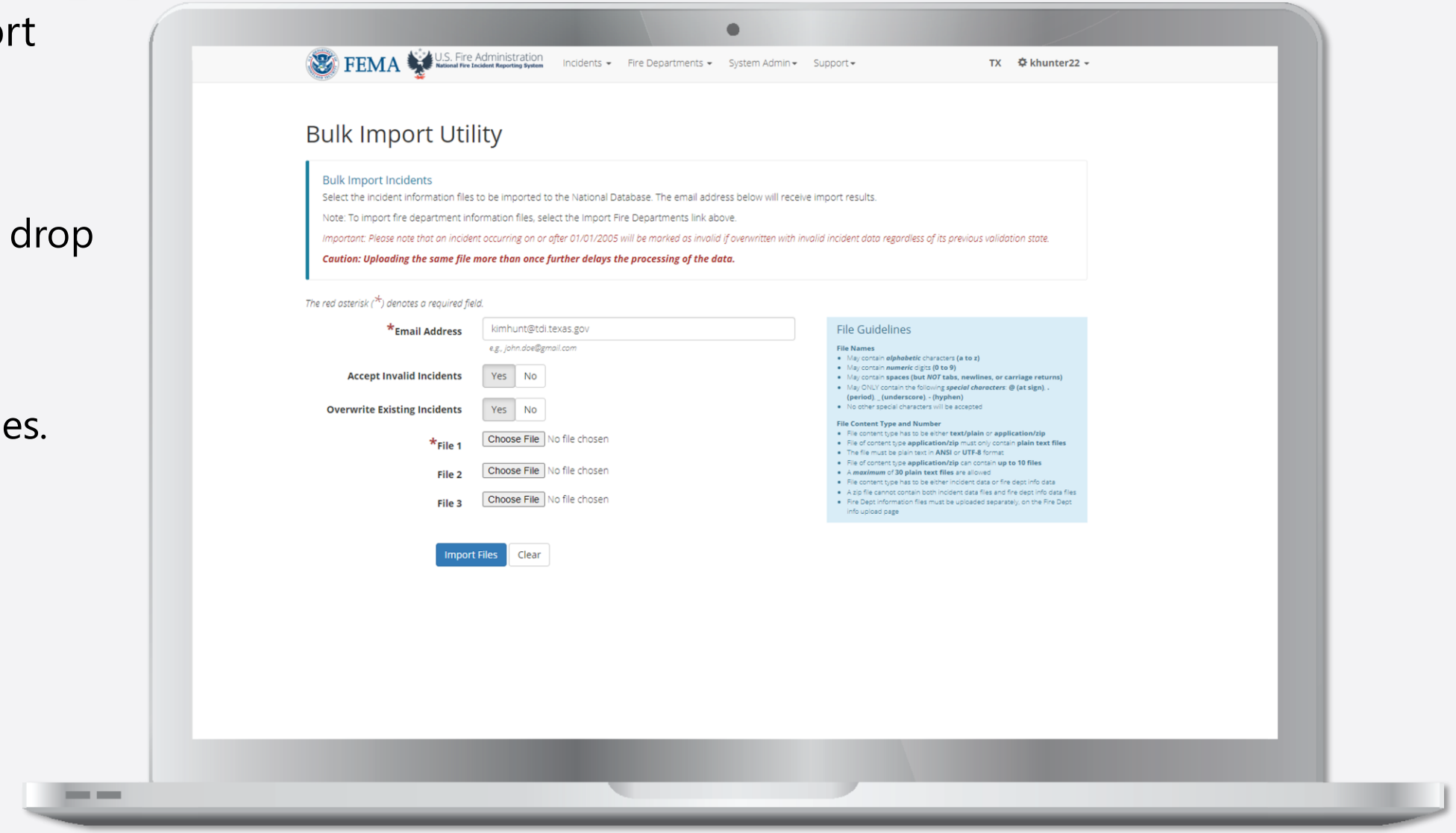
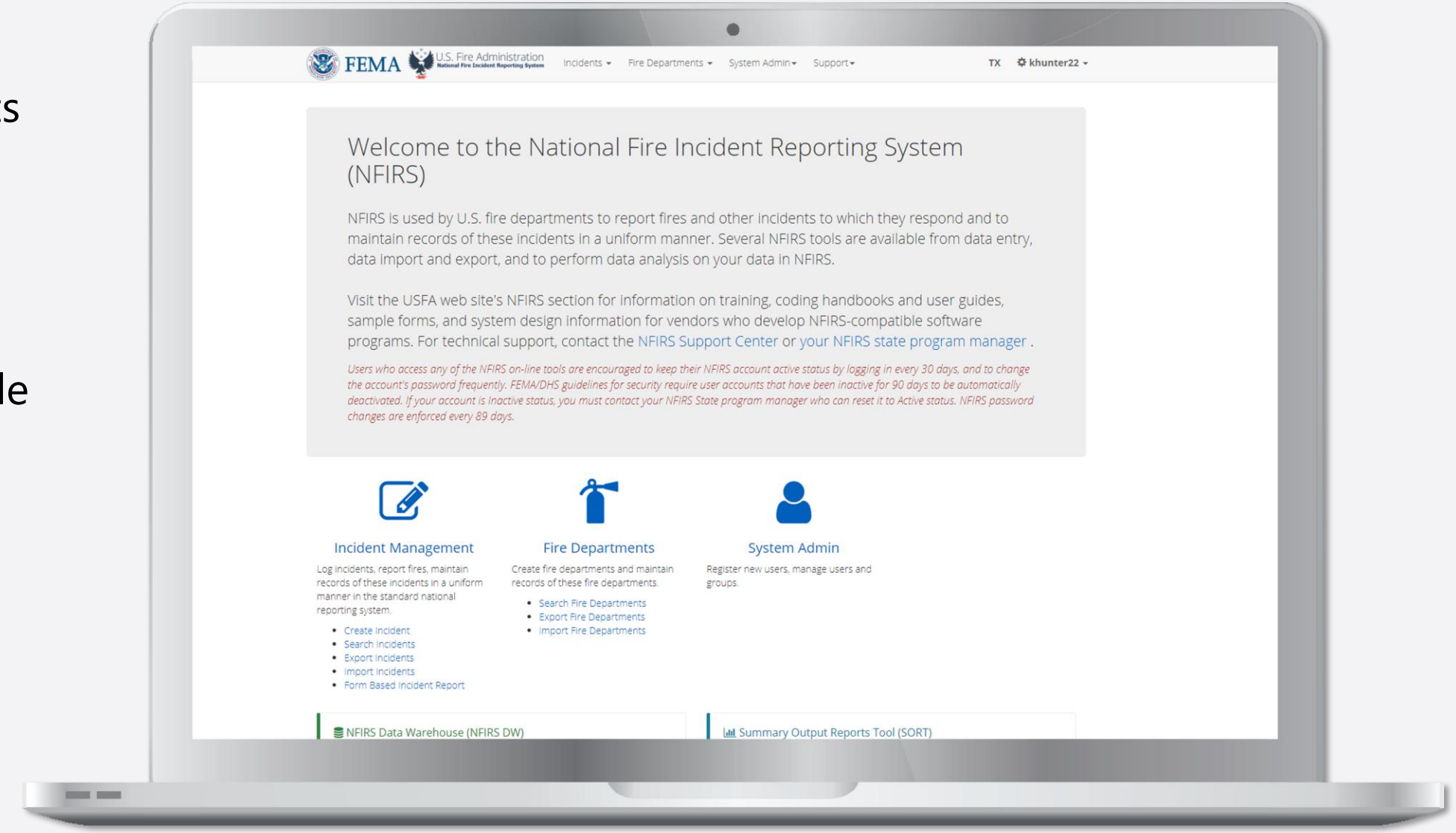


TDI

- Incidents
- Fire Departments
- System Admin
- Reports Tools
- Links to NFIRS training and code guides



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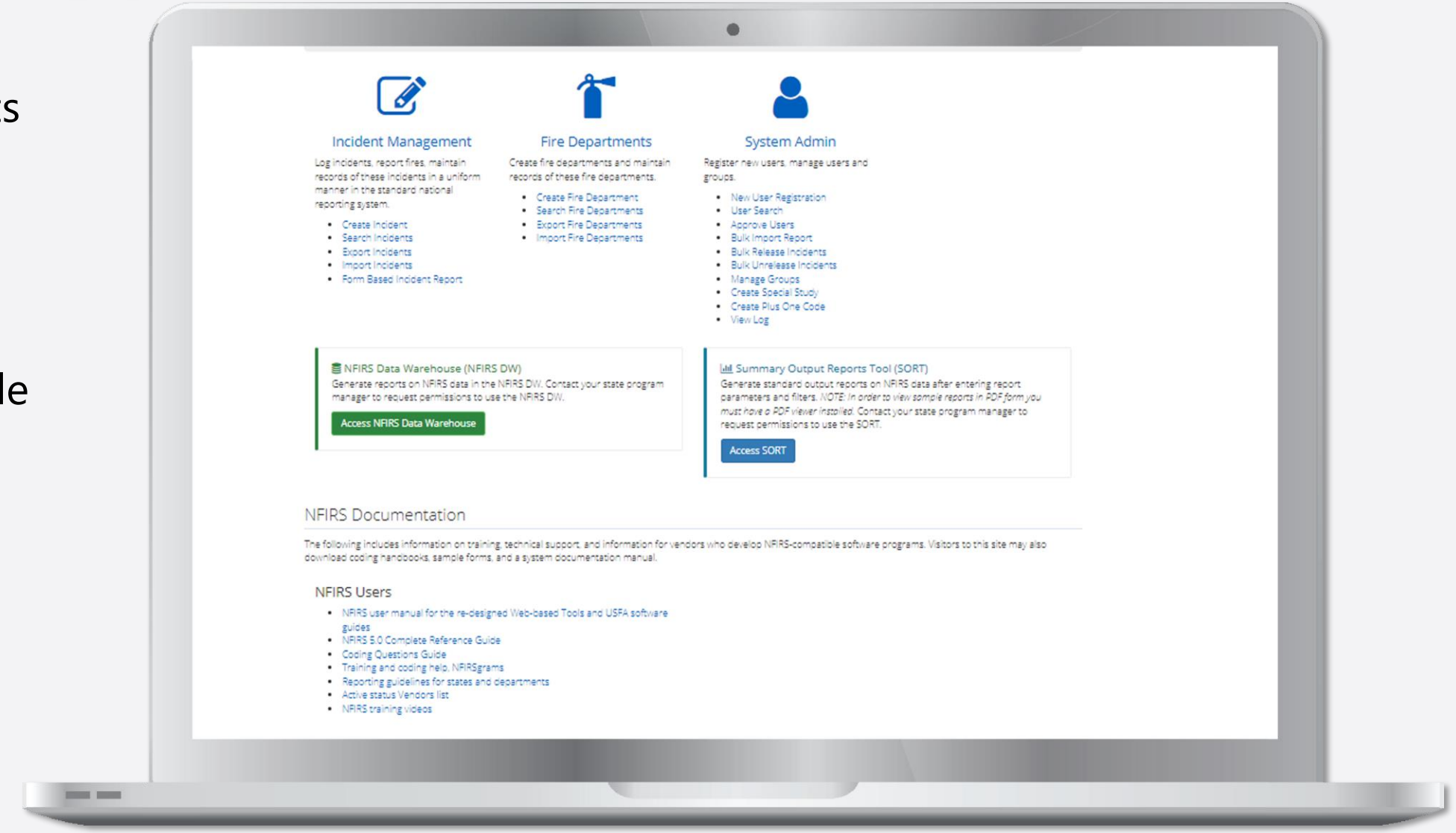


TDI | Summary output reports tool (SORT)

In order to view sample reports in PDF form you must first have a PDF viewer installed. Such a viewer is available from Adobe

Available Reports

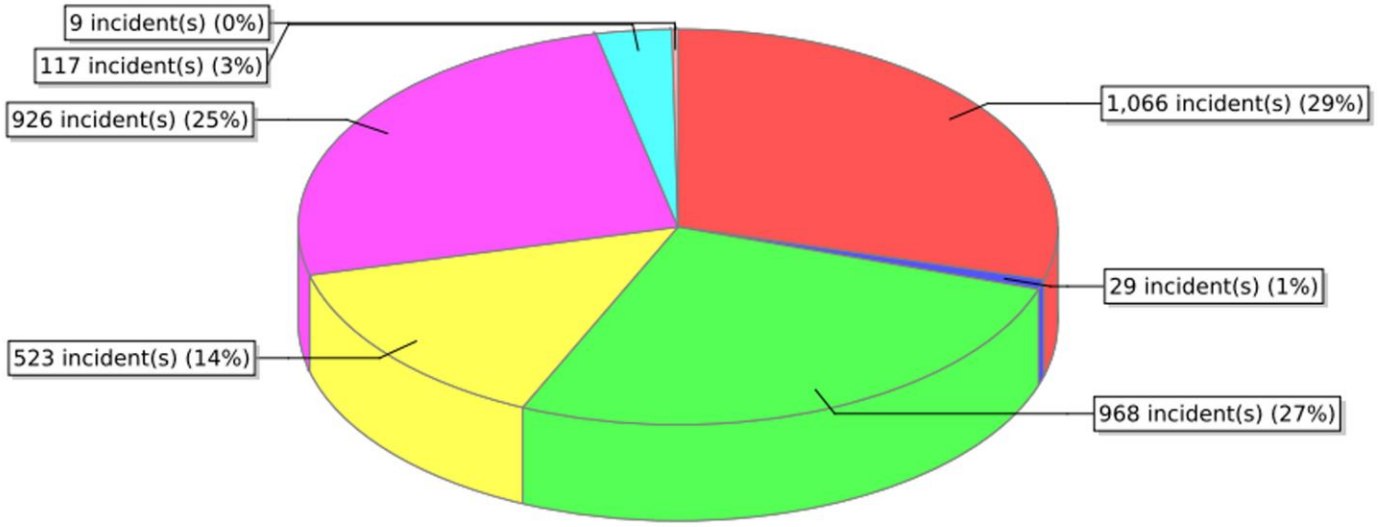
Report Name	Report Description	Report Category	Sample Report
Civilian Casualties	The Civilian Casualties report summarizes the user's choice of either injuries or fatalites involving civilians. The report breaks down the numbers into five graphs: by property use, by incident type, total injuries, fire incidents, and non-fire incidents. The last three graphs are grouped using a user-chosen time period including the day of the week, day of the month, the hour of the day, month of the year, quarter of the year, week of the month, or week of the year.	Casualty Reports	
Data Inventory By FDID	The Data Inventory by FDID report summarizes incident data within a given alarm date range by presenting a table for each selected fire department that provides counts of various incident modules broken down by incident validity, original incident data version, and incident publication state.	Fire Reports	
Data Quality	The Data Quality report quantifies the quality of reported incidents as a total number and percentage of the presence of key fields on various modules such as the Basic Module, Fire Module, and Apparatus Module.	Management Reports	
Detailed Selected Statistics	The Detailed Selected Statistics report summarizes incidents by the presence and frequency of a particular coded field as chosen by the user (such as the Cause of Ignition field on the Fire Module). Additionally, the user may add ad hoc filters to further narrow the incidents included. The results include the frequency, frequency percentage, number of exposures, average number of EMS and supression personnel and apparatus, average man hours, total man hours, and average response time.	Management Reports	
FDID Incident Type Summary	The FDID Incident Type Summary report summarizes counts of incidents by incident type (incident type in the 100s, 200s, 300s, etc., U [Undetermined - 4.1 conversion], or none) and total incidents for each FDID chosen by the user. A total for all FDIDs included is given at the end of the report.	Incident by FDID Reports	
Fire Department Information	The Fire Department Information report provides counts of fire service personel, incidents, exposures, aid given, and casualties at a per-fire department level. The report additionally quantifies the number of matching fire departments that have and have not reported matching incidents within the specified period.	Incident by FDID Reports	
Fire Report by FDID	The Fire Report by FDID report creates a summary of fire activity for each FDID selected by the user. The summary is presented as one page per FDID and includes a table by four major fire incident types (structure fires, vehicle fires, outside fires and other) and a pie chart including the top five fire types for that FDID. The table includes the counts and percentages for both that FDID and the FDID within the group of FDIDs begin reported upon.	Fire Reports	
Fire Service Casualties	The Fire Service Casualties report summarizes the user's choice of either injuries or fatalites involving fire service professionals. The report breaks down the numbers into five graphs: by property use, by incident type, total injuries, fire incidents, and non-fire incidents. The last three graphs are grouped using a user-chosen time period including the day of the week, day of the month, the hour of the day, month of the year, quarter of the year, week of the month, or week of the year. Unlike the Civilian Casualties report, this report includes all types of mutual aid (including mutual aid given and automatic aid given).	Casualty Reports	
Fires Under Investigation	The Fires Under Investigation report lists fires that were under investigation at the time they were reported to the national database. The details of the report include the FDID, station ID, incident date, incident number, incident type, property use, mutual aid given or received, and property address. The selection criteria includes choosing FDID(s), a date range, a validity status (e.g, Valid), release status (e.g, Released) and data version (e.g., 5.0). The report can be sorted by FDID or Incident Date.	Investigation Reports	
Incident Counts	The Incident Counts report is a one-page summary of totals for a user-defined list of FDIDs over a user-defined time period. The totals are broken down by Validity Status (e.g, Valid), Release Status (e.g, Released), Version Number (e.g., 5.0), Exposure Type (Primary vs. Exposure), Mutual Aid Flag (summarized by Given, Received and None) and Incident Type (only by Fires, EMS and "other"). The totals are given as both numbers and percentages.	Incident Reports	
Incident Listing	The Incident Listing report lists the five key fields required for every incident: FDID, FDID state, Incident Date, Incident Number and Exposure Number for every incident in the selection criteria. The selection criteria includes such things as which FDIDs and the date range of incidents should be included (among many others). Additionally, the current Validity Status (e.g, Valid), Release Status (e.g, Released), Station Number, Mutual Aid Flag, Incident Type, Last Updated Date, and Last Updated By name are given. The report is sorted by FDID. Caution should be exercised when choosing the selection criteria for this report as the size of the output grows directly with the number of incidents chosen.	Incident Reports	
Incidents By Time Series	The Incidents By Time Series summarizes incidents by total number of incidents, fire incidents, EMS incidents, false call incidents, and other incidents. These are grouped using a user-chosen time period including the day of the week, day of the month, the hour of the day, month of the year, quarter of the year, week of the month, or week of the year. The results are displayed graphically using bar charts.	Incident Reports	
Monthly Incident Counts	The Monthly Incident Counts gives raw counts of primary incidents, exposure incidents, and aid given incidents for a chosen set of fire departments (FDIDs) broken down by month for a full calendar year. The numbers for each fire department are grouped individually and a grand total for all the fire departments chosen is given in the report summary.	Incident by FDID Reports	
Mutual Aid Given Unmatched Departments	The Mutual Aid Given, Unmatched Departments report creates a list of mutual aid given incidents where the matching mutual aid received incident cannot be found. Each line of the list includes the aiding FDID and state as well as date, incident and exposure number, the aided FDID, state and incident number. The report ends with the total number of unmatched mutual aid given incidents.	Mutual Aid Reports	
Mutual Aid Incidents	The Mutual Aid Incidents report creates a list of mutual aid incidents that match the type chosen by the user. The choices include: aid given only, aid received only, other aid only, aid none only and all aid types. The user can also choose whether to sort the results initially by FDID or Incident Date (and next by Incident Date or FDID then incident number and exposure). Other selection criteria include the FDIDs to include, the date range, data version, incident validity and release status. For each reported incident, the FDID, FDID state, incident date, incident number, exposure number, assisted/ing FDID, assisted/ing FDID state, and assisted/ing incident number. The report ends with the total number of mutual aid incidents.	Mutual Aid Reports	

TDI | Sample report by fire department ID

Fire Report By FDID

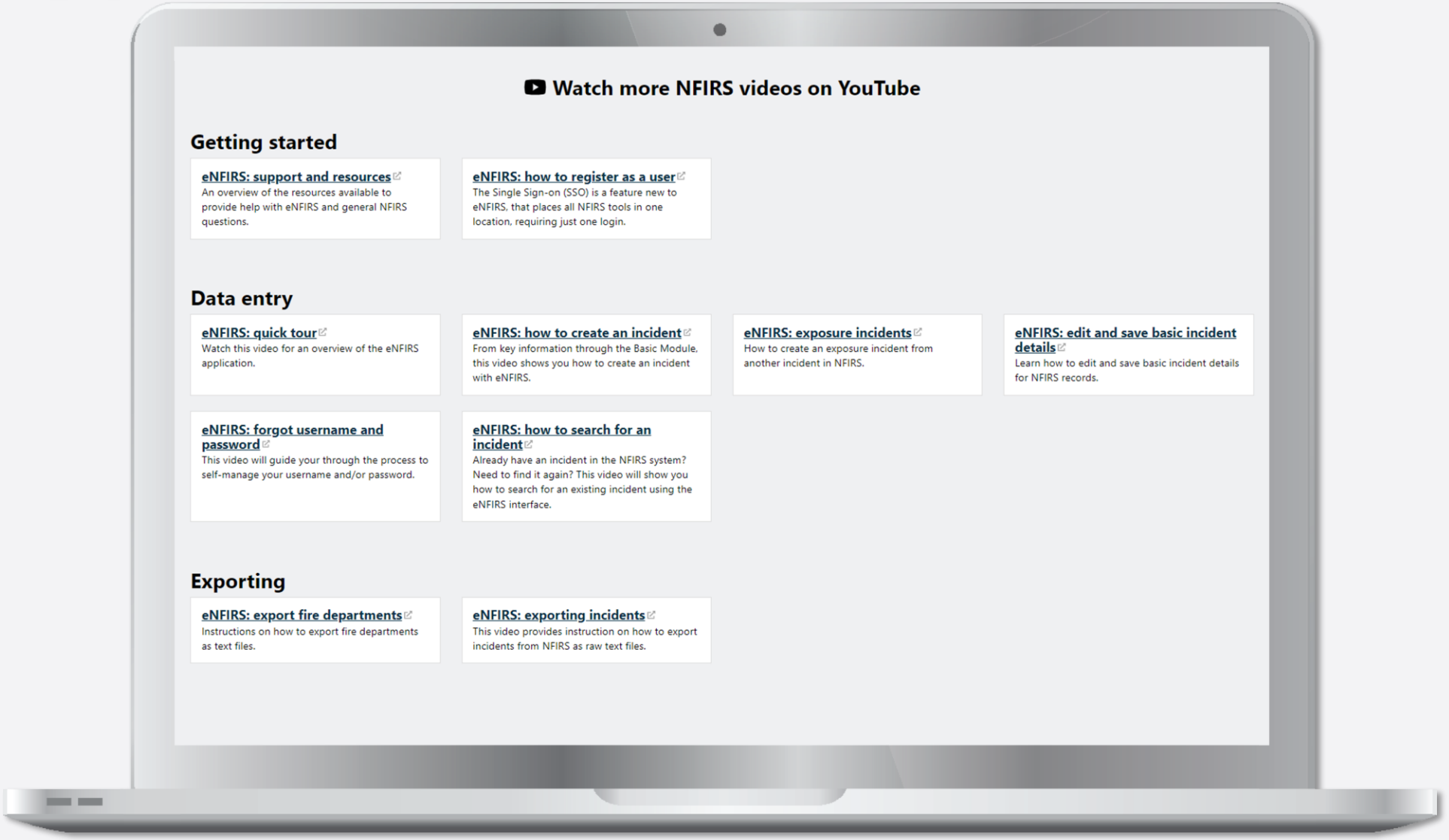
Report Period: From 01/01/2020 to 12/31/2020

FDID/FD Name	Fire Incident Type	# of Fires	% of Fires	Group Fires	% of Group
KA926	Structure Fires (110 - 123)	1,095	30.10 %	19,305	28.24 %
	Vehicle Fires (130 - 138)	968	26.61 %	11,404	16.68 %
Houston FD	Outside Fires (140 - 173)	1,575	43.29 %	35,274	51.61 %
	All Other Fires (100)	0	0.00 %	2,368	3.46 %
	Total Fires	***3,638***	***100.00 %***	***68,351***	***100.00 %***

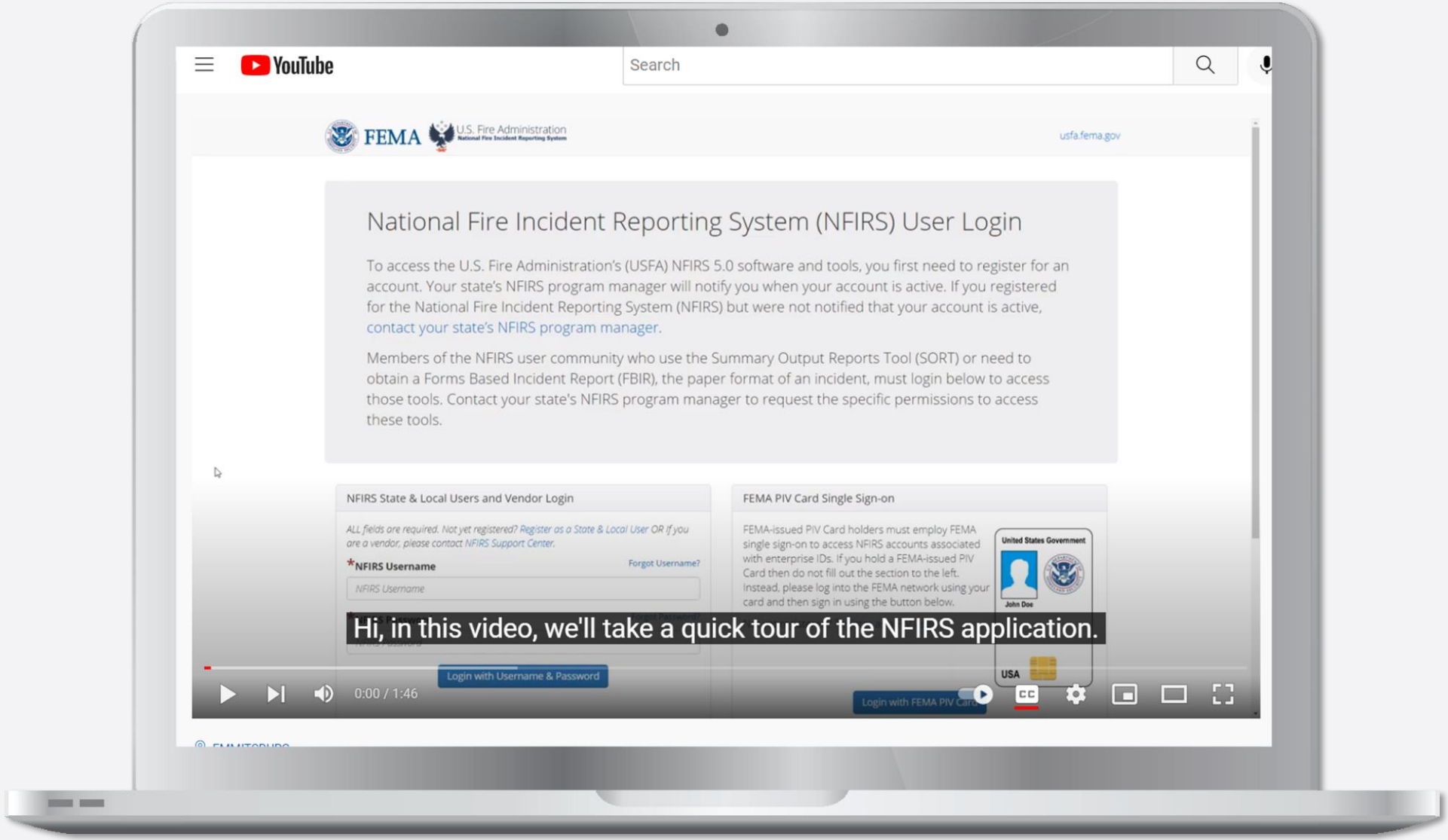


TDI | Online tools and resources

NFIRS training

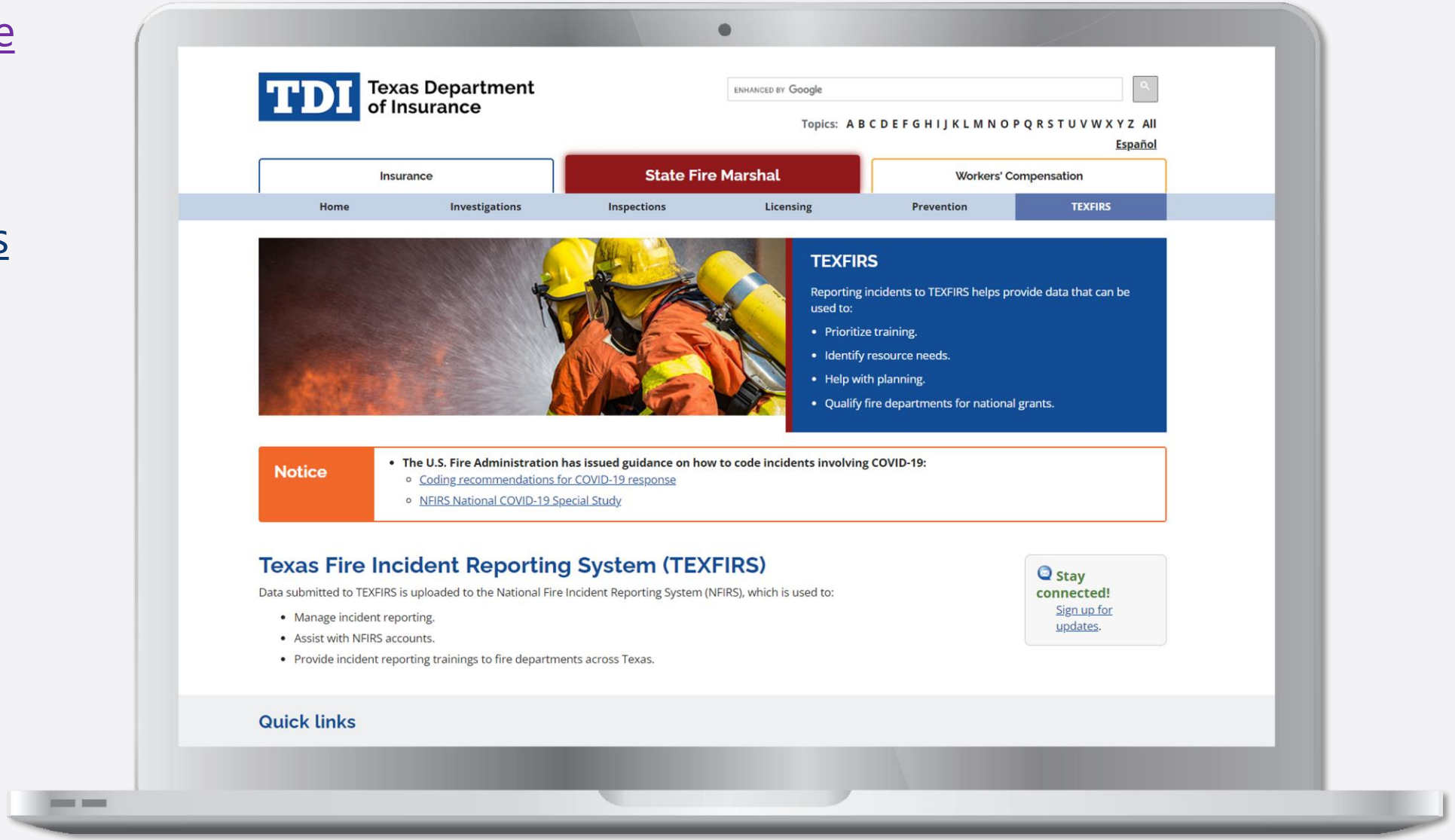


TDI | NFIRS login walk-through



TDI | TEXFIRS webpage

- TEXFIRS webpage
- Fire department reporting status
- Summary reports
- Fires under investigation



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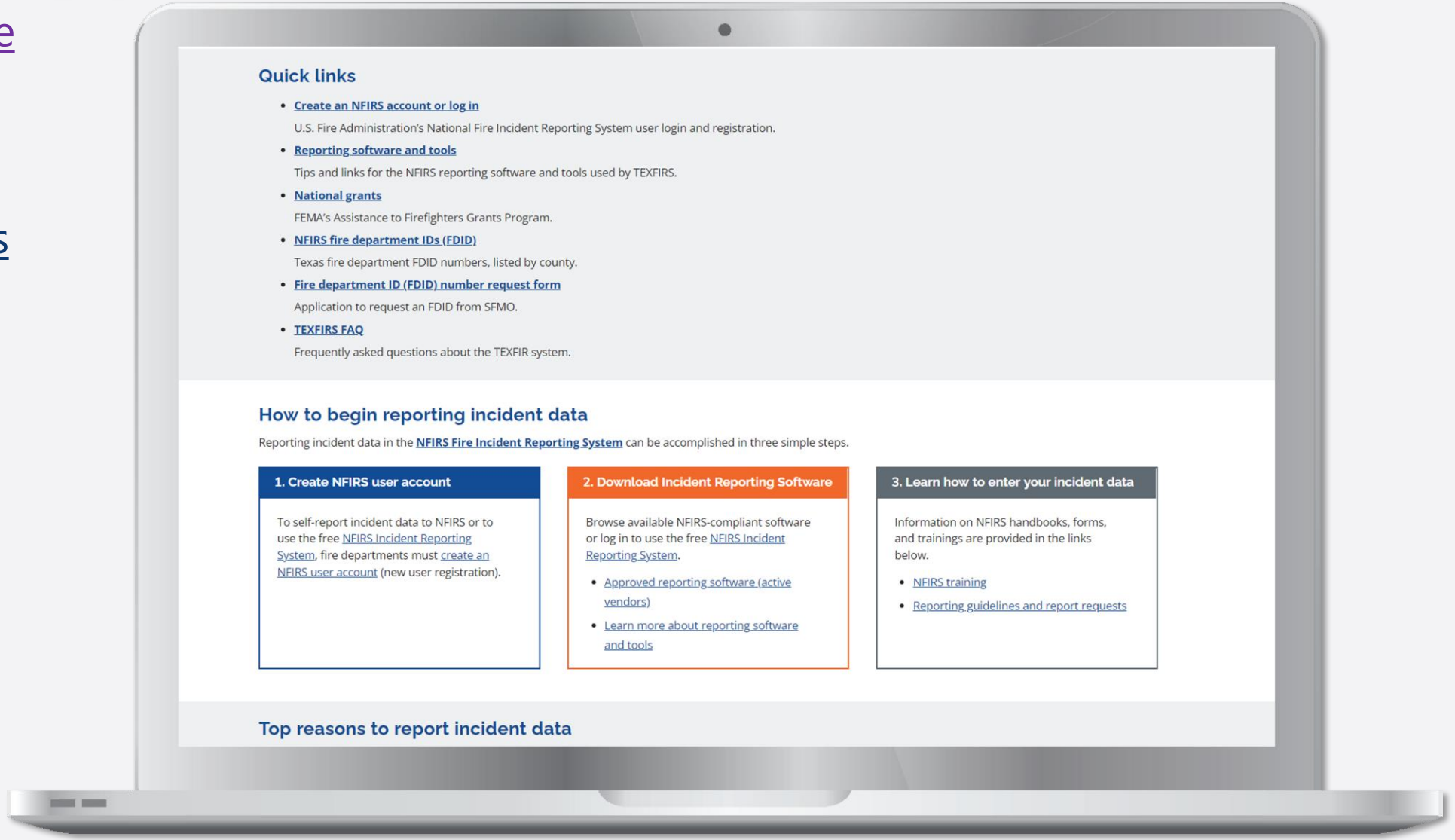

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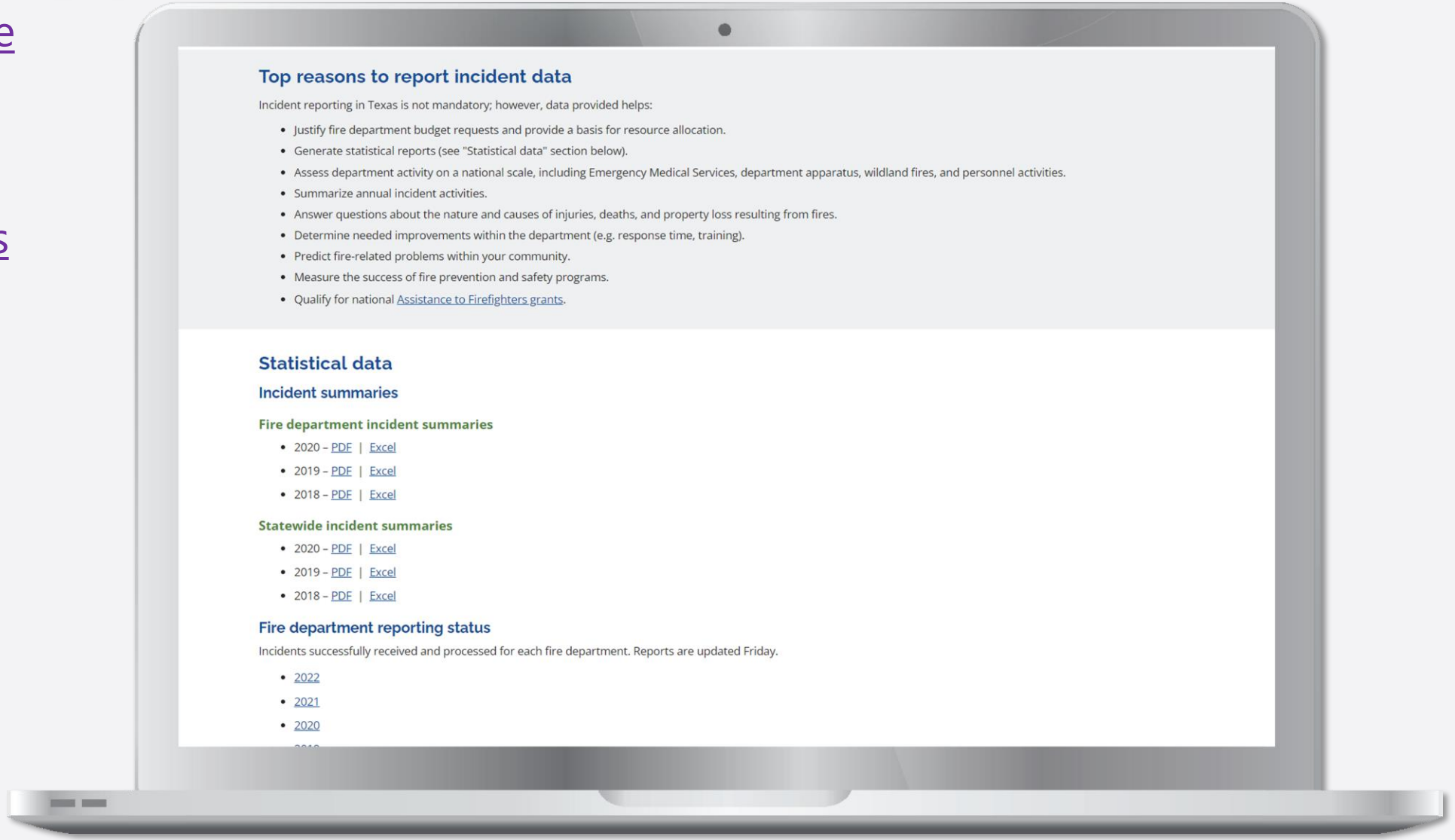

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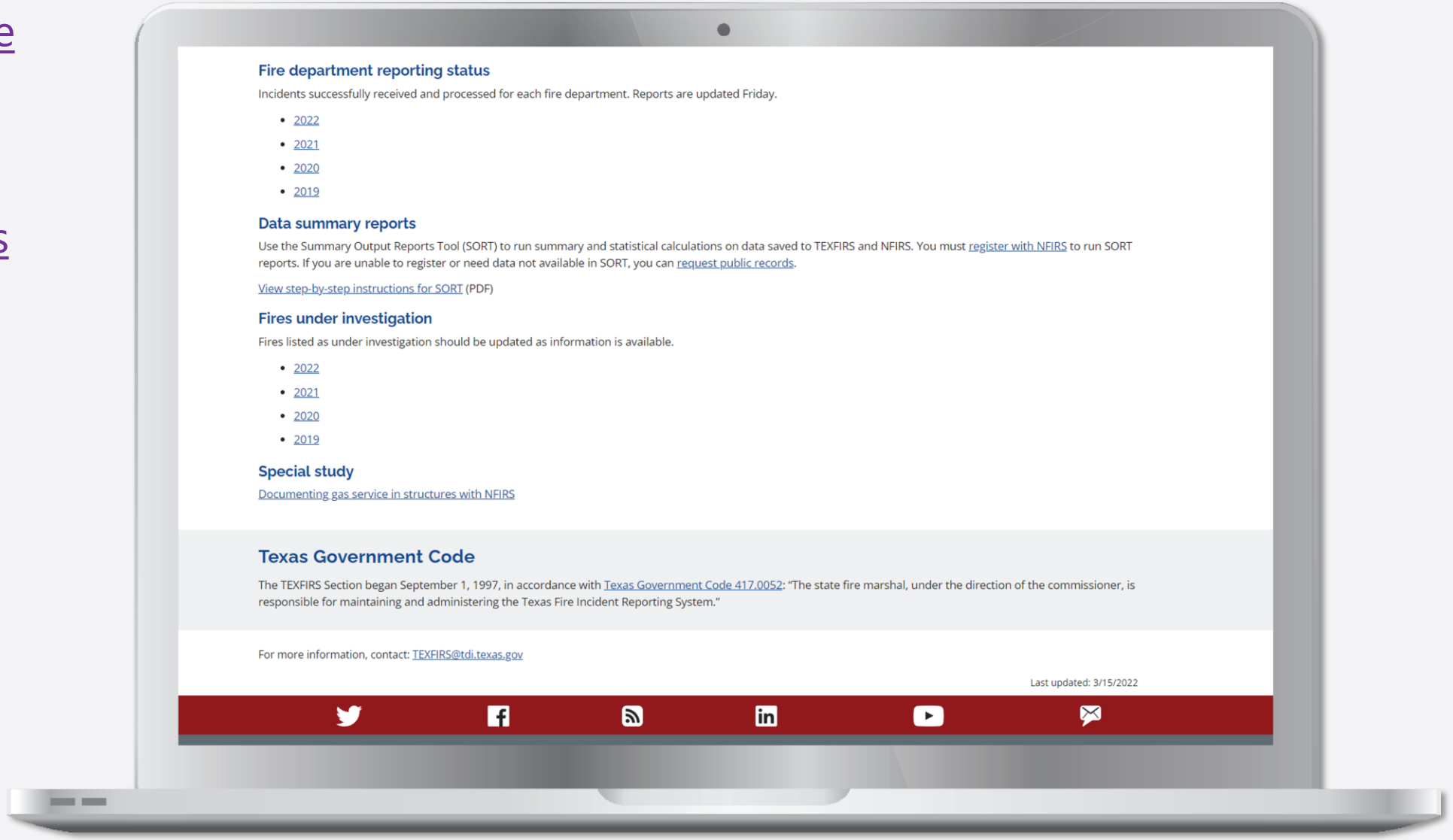

TDI | Fire department reporting status report

Monthly Participation Report

Report Year: 2022

State	FDID	Fire Department	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Grand Total	Reported Months	Missing Months
TX	AA205	Slocum VFD	4	2	3	0	0	0	0	0	0	0	0	0	9	3	9
TX	AA207	Tucker VFD	2	0	0	0	0	0	0	0	0	0	0	0	2	1	11
TX	AA309	Palestine Southside VFD	13	19	6	0	0	0	0	0	0	0	0	0	38	3	9
TX	AA310	79 East VFD	0	1	0	0	0	0	0	0	0	0	0	0	1	1	11
TX	AA401	Westside VFD	3	5	0	0	0	0	0	0	0	0	0	0	8	2	10
TX	AA402	Frankston FD	15	11	0	0	0	0	0	0	0	0	0	0	26	2	10
TX	AA404	Neches VFD	0	0	1	0	0	0	0	0	0	0	0	0	1	1	11
TX	AA604	Palestine FD	110	92	89	0	0	0	0	0	0	0	0	0	291	3	9
TX	AC409	Huntington FD, City of	11	20	30	4	0	0	0	0	0	0	0	0	65	4	8
TX	AC608	Lufkin FD	271	240	0	0	0	0	0	0	0	0	0	0	511	2	10
TX	AD404	Lamar VFD	10	9	20	4	0	0	0	0	0	0	0	0	43	4	8
TX	AD505	Rockport VFD	31	0	0	0	0	0	0	0	0	0	0	0	31	1	11
TX	AG202	Washburn VFD	2	2	0	0	0	0	0	0	0	0	0	0	4	2	10

TDI | Fire department ID summary sample

FDID Summary By Incident Type

Texas

Report Period: 1/1/20 to 12/31/20

AP304 Medina Lake VFD

Call By Incident Type		Frequency	Percent of Total Calls	Mutual Aid None	Mutual Aid Given	Mutual Aid Received	Other Aid Given	Invalid Aid Flag	Exposures	Total Incidents
FIRES	Building Fires (110-118, 120-123)	6	0.00%	6	3	0	0	0	0	9
	Vehicle Fires (130-138)	4	0.00%	3	0	1	0	0	0	4
	Other Fires (100, 140-173)	16	0.00%	12	3	4	0	0	0	19
	Total Fires	**26**	**0.00%**	**21**	**6**	**5**	**0**	**0**	**0**	**32**
Pressure Ruptures, Explosion, Overheat (200-251)		0	0.00%	0	0	0	0	0	0	0
RESCUE CALLS	Emergency Medical Treatment (300-323)	139	0.01%	139	0	0	0	0	0	139
	All Others (331-381)	3	0.00%	3	1	0	0	0	0	4
	Total Rescue Calls	**142**	**0.01%**	**142**	**1**	**0**	**0**	**0**	**0**	**143**
Hazardous Condition Calls (400-482)		18	0.00%	18	1	0	0	0	0	19
Service Calls (500-571)		30	0.00%	30	0	0	0	0	0	30
Good Intent Calls (600-671)		40	0.00%	40	3	0	0	0	0	43
Severe Weather or National Disaster Calls (800-815)		0	0.00%	0	0	0	0	0	0	0
Special Incident Calls (900-911)		0	0.00%	0	0	0	0	0	0	0
Unknown Incident Type (UUU)		0	0.00%	0	0	0	0	0	0	0
	Malicious Calls (710-715, 751)	0	0.00%	0	0	0	0	0	0	0

TDI | Online tools and resources

- NFIRS training webpage
- Guidance to running eNFIRS statistical reports
- How to use the Bulk import utility tool
- NFIRS 5.0 guide
- Understanding Your Role in Fire Incident Data
- eNFIRS training videos
- NFIRSGrams

TDI | Resources

- Texas Fire Marshal's Office
- Training
- Systems support
- Ad-hoc data reports
- Coding assistance

TDI | NFIRS study courses

SFMO - TEXFIRS

Introduction to NFIRS version 5.0: 8-hour introductory course.

NFIRS courses offered thru USFA - National Fire Academy

- **Online self-study course:** Serves as an introduction
- **NFIRS program manager's course:** six-day, on campus
- **Introduction to NFIRS:** two-day course, offered on / off campus.

TDI | TEXFIRS contact information

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