Tonto Fire Mapping

- 2025 Field Maps App Updates
- 2025 Tonto IA GIS Products Overview
- Tonto IA Field Map Demo
- What GIS Staff Can Offer
- Other Products/Services
 - InFORM (Mapping)
 - Avenza
 - Dashboards
 - Tonto GIS SharePoint

Tonto GIS Staff Spring 2025







ArcGIS[®] Field Maps

AVENZA MAPS

Field Maps Application

Collector Classic and Collector for ArcGIS

- <u>RETIRED DO NOT USE!</u>
- No longer available to Download in App Stores

Field Maps is the App to use for 2025 Fire Season

- Incident Management Teams
- Make sure Field Maps is updated to Latest Version
- No Major app updates for 2025

Field Maps Login with NIFC Account

Somewhat NEW – Multi-Factor Authentication Login...





Multi-Factor Authentication (MFA)

Requirement for NIFC Account Login – <u>How to Guide</u>

- First time login will open set up instructions
- QR Code connects NIFC Account with Authenticator App – Take screenshot
- Recovery Codes One-time use codes
- Lost Authentication Connection?
 - MFA Reset How To Guide
- Any issues contact Tonto GIS Staff or Submit
 <u>NIFC Org Support Request Form</u>





a

Microsoft Authenticator

Multifactor Authentication	@ esri	Multifactor Authentication	Gesri
Connect your authenticator app Use the installed authenticator app to scar QR code from your phone or tablet.	n this	Save recovery codes Keep these codes safe, but acco won't be shown again, These a	assible. They re one-time
Learn more		passcodes that will allow you to you are away from your device. Learn more	log in when
		12 I	
Can't scan the code?		Print	Download
Cancel Back	Next	I have saved the recovery Done	codes

SW Tonto NF - IA Map Group

Environment Structure

ArcGIS Online (AGOL) / Field Maps Application -> Groups -> Maps -> Data Layers

- Have NIFC Account and be able to Sign into Field Maps
 - Need a NIFC account: Fill out the <u>Account Request Form</u>
 - Seasonals can request a NIFC account with Personal Email, Red Card, and Justification
- Become a member of "SW Tonto NF IA Map" Group
 - Send email to one of the Group managers (Tonto GIS Staff) with the following information:
 - Name, NIFC Username, and Indicate if user is Tonto Staff or Non-Tonto Staff (Severity Resources)
 - Non-Tonto Staff may be removed from the Group and lose access after the Fire Season. This helps us manage the group more effectively.



SW Tonto NF - IA Map

E Leave group

Created: Apr 28, 2020 Last updated: Jan 21, 2022 Viewable by: 🛱 Group members

💑 Any organization

Owner: fwilliams nifc

Tonto National Forest Initial Attack Map for all Stat Fire Incidents. Personnel can add fire related features like fire origin, completed line, fire perimeter, etc. and can determine whether values may be at risk by turning on additional layers.

2025 Tonto NF IA Field Map

- Tied to National Dataset
- Includes: Fire Event Features, Tonto Resource info, etc.

BASIC 2025 Tonto NF IA Field Map

- Tied to National Dataset
- Includes: Fire Event Features

TRAINING 2025 Tonto NF IA Field Map

- Tied to Training version of the Dataset
- Includes: Training Fire Event Features

Tonto NF Fuels Field Map

Includes: Fuels Projects (Operational and Planning), Resource info, etc.

Tonto NF Current Wildfire Activity Map

- Situational Awareness Map
- Includes: Live/Dynamic Layers
- Read only and Only viewable Online



2025 Tonto NF IA Field Map

2025 Tonto National Forest Initial Attack Map for all Stat Fire Incidents. Personnel can add fire perimeter, etc. and can determine whether values may be at risk by turning on addition 🔣 Web map Item updated: Mar 4, 2025







Current Wildfire Activity

Tonto NF Fuels Field Map

Tonto National Forest Fuels Map for Fuels Projects. Personnel can add fuels related featur etc. and can determine other risks by turning on additional layers.

TRAINING 2025 Tonto National Forest Initial Attack Field Map intended for training and fa

Item updated: Mar 4, 2025 🔣 Web map

Web map Item updated: Jan 31, 2025

Tonto NF Current Wildfire Activity Map

TRAINING 2025 Tonto NF IA Field Map

collecting Fire related features using the hosted Training NIFS.

This map contains Live data for Situational Awareness. It contains US wildfire locations (ac related to wildfires.

Web map Item updated: Feb 11, 2025

Link to Briefing Guide





National Data Layers NIFS/Event Layers

- Used for National Incident Specific Information
 - Drop Points, Divisions, Hand Line, etc.
 - Data is archived every year
- Fire Perimeter
 - Edit Auto-Generated Triangle
 - Create New Perimeter
- Deleting mistakes
 - Tonto IA Field Map and IMT Incidents Can't Delete in the field (Can Delete if on an offline map and haven't synced yet)
 - Delete this feature? / You can use the comments field
- Tracking
 - If the feature is edited, the program will attach the editor's username and the date/time it was edited

Label Point (NIFS)	COS MI	(1 of 2)	• • ×		
Structure Triage (NIFS)	Wildfire Daily Fire Perimeter: Punkin Incident Name Punkin Feature Category Wildfire Daily Fire				
Accountable Prop	oerty (NIFS)	DIV Z	Comments Acres Delete this	387.00 No		
Event Point (NIFS)		feature? Label Polygon Date Time	3/9/2021, 6:00 AM		
Event Line (NIFS)				Set Directions		
Perimeter Line (N	IIFS)					
Event Polygon (N	IFS)	DIV	A	AN PA		
	Event Polygon - Dealer Incident Name FC Polygon Type Map Method Comments Acres Delete this feature? Label Feature Access Feature Status Is Visible Create Name Create Date Edit Name Date Current	Dealer Wildfire Daily Fire Perimeter Auto-generated for INFORM Auto-generated by EGP-IRWIN 0.1 No <null> Public Approved No egp_admin 3/10/2021 10:56:02 PM wbalcom_nifc 3/12/2021 10:02:46 PM</null>				
	Polygon Date Time IRWINID GlobalID	3/11/2021 3:35:20 AM {B2305204-3907-490E-8CE3-(28E9D187-5308-4028-8A17- 111.2333000°W 34.2725000°N)A59485359DA 568730C64310	} \\\		

2025 ICS Symbol Updates

National Data Layers (NIFS/Event Layers)

No Major Changes



Structure Triage Category Defensible - Stand Alone Defensible - Prep and Hold Non-Defensible - Prep and Leave Non-Defensible - Rescue Drive-By Unknown **Repair Status** In Use - Fire Management Needs Assessment Repair Needed In Progress Completed - Ready for Inspection Completed - Inspected No Repair Needed Other - See Comments



Structure Triage

- Data can be collected/edited anytime
- National Data Layer
- Data is rolled over every year
- Fill out as many fields as you can
- Survey 123 Application can be used
- Photos: If possible, Limit the number of Photos to 2 or 3. More Photos = Increase File Sizes

Telegraph Fire (Structure Report Test)

Location: McSpadden Ranch , Coordinates (DDM): 33°20.488'N, 110°56.314'W

Triage Category: Defensible, Prep and Hold FIRESCOPE Triage Category: Structure Number: (007) Collected Date/Time: 6/7/2021 7:33:00 PM Collected By: Andrea McKenna Inspector's Position: ENGB Type of Structure: Residential Primary Structures: 1 Is the building Occupied?: Yes Outbuildings: 5 Fuel Surrounding Structure: Shrub or timber Defensible Space: 30 ft treated Roof Material: Noncombustible or not applicable Siding Material: Wood or open sided Electrical Power: Yes Gas to Structure: Unknown Hazards: Access to Site: T3/4 Engine Describe Access: Ranch off the 349 Rd around 2 miles slow ingress/egress windy road Comm With ICP: Yes Water Source: No reliable water source nearby Safety Zone Present: Mitigation Time (in hours): 1 Mitigation Description: minimal mitigation needed, limbing up a couple trees around propane tanks Resources Needed to Protect Structure: type 3/4 enaine FIRESCOPE Tactics:





AZ-TNF-125





Tonto Specific Data Layers

Tonto Resource Information

Response Zones, PODs, Fire History, Mile Markers, MSO, Timber Sales, Retardant \bullet Avoidance, Flight Avoidance, Mine Hazards, Range Layers, Ownership, etc.

Tonto Fire Reference Features

Internal Permanent Fire Features on the Tonto. Dip Sites, LZs, Gates, Medical Helispots, Values at Risk, etc.

Tonto Fire Prevention Sign

Restriction Sign Status •

Tonto Fuels Projects

- Only in Fuels Field Map •
- Active or Planned Fuels Projects \bullet



Repeater

Medical

Closure

Lookout

Landmark

Gate

Bridge

Hazard

Draft Site

Hvdrant

Other



Fire Prevention Signs Data Layer

- Full Edit Access. Fill out as much information as possible
- Can be used for Fire Restriction Sign Status
- Can add Photos: Limit number of Photos if possible





Tonto National Forest - Mesa Ranger District Prevention Sign Inventory

Sign Name: Ballantine Trail Head Sign Number: General Area: Legal: Township 5N, Range 8E, Section 23 Latitude: 33° 45.866' N Longitude: 111° 29.605' W Road Number: Road Name: Beeline **Road Surface: Right of Way:** Sign Size: Sign Install Date: Present Condition: 1=New 1-5 Scale - 1=New to 5=Replace **Direction Sign Facing: West** Posters: Fire Restriction Sign Status: Not Placed Fire Restriction Sign Size: Notes:





Edited By: Tonto SZ GIS Revision Date: 3/28/2022

Tonto Fuels Project Data Layers

- Used for Active and Planned Fuels Projects
- Fuels Monitoring Sites
 - Site Inspection Survey 123 Connection
- On going Development





Set up and Collect Features Online Demo

- Settings: Collection Settings, Units, etc.
- Overview of Map
 - Overflow Menus
 - Data Layers
 - Map Functions
 - Collecting Data
- Online vs Offline Syncing





<u>Going Offline</u> Downloading Offline Work Area

- Download at <u>Streets</u> or Neighborhood Detail
 - Any Smaller the File Size is too large and will give errors
- Can Download Multiple Areas
- Streets Detail for District
 - Around 1 GB File Size
 - 10-20 min Download Time (Depending on Network Speeds)
- Create Offline Area Before Going into the Field



Set up and Collect Features Offline Demo

Syncing

- Sync before you go out into field
- Sync when you get back from field
- Don't let data sit on device
- 'Last one in, Wins'



Field Maps: Markup Tool

- Capture Sketches and notes on a map
- Markup is saved as a layer <u>on your device</u>
- You can use markup for your own information, similar to drawing on a paper map
- You can share it to communicate with others by screenshot or through Bluetooth/Airdrop
- Temporary Layer Not Needed for Data Collection



What GIS Can Offer

GIS Staff Can Help with:

- Editing Data
- Creating Incident Maps
 - Common Types: Operations, PIO, IAP
- Technical Assistance
 - Field Maps
 - Avenza
 - GIS Desktop Products (ArcPro)
 - Mapping Functions of Programs: InFORM, WFDSS, ISAP, BAER, etc...



Fire Perimeter Editing by GIS Staff

- You may see a GIS Specialist Name as the Last edit 2 reasons:
 - If a new feature is collected. There is a unique code (IRWIN ID) that needs to be attached to the data fields of the new feature. GIS staff has to enter that code into the system so everything ties together.
 - Slight geometery editing: Smoothing Line, GPS "Spider Webs"



InFORM – GIS

Adding Perimeters for Certification

- Perimeter from NIFS Via IA Field Map
- Uploading a zip file of all shapefile files
- Hand Sketch Work with GIS staff, if needed

Fires over 10 Acres Require a Perimeter, Under 10 Acres do not Require a Perimeter

<u>Annual Reporting</u> – Staff is including any Fire perimeter collected and Certified

Perimeters Feed a LOT of Public Facing Sites

- InciWeb, Weather sites, Watch Duty, etc.

Point Outside of Polygon and Acres Mismatch

- Best way to update is through Dispatch
- Point Location can be edited in InFORM
- Acres can be edited in InFORM
- GIS will work with FMOs at end of season



Data Can be Obtained from Other Locations

- If you cannot collect the Perimeter there are other ways
- Imagery Data
 - Sentinel Satellite Data
- Some Limitations
 - Time: Once a week
 - Correct Conditions
 - Needs to be 10+ Acres

	ustom reate custom visualization	•
NAME	Spring	
ID	2021-AZTNF-000713	DECERTIEV INCIDENT
DISCOVERY DATE	05/02/2021 at 11:35 AM	OLOLITI I MODELITI
FIRE SIZE	65.93	
INCIDENT		
INCIDENT NAME *	Spring	
INCIDENT TYPE *	Fire	
INCIDENT CATEGORY	Wildfire	
UNIQUE FIRE IDENTIFIER *	2021-AZTNF-000713	
LOCAL INCIDENT IDENTIFIER *	000713	
FIRECODE *	NZ6E	
FORID *	{D66C7720-7A76-4CA1-A72F-3FE0	CD68E35E}





Data can be Exported From Avenza

- Data can be Exported from Avenza Maps (How to Video)
 - Shapefile, KML, etc.
- Does take some Data Conversions but can be easily entered and updated to be available for systems like InFORM reporting



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Avenza

New FS Pro License Code - 3/1/25

FS SharePoint Site for Avenza Info

• Need to be on FS Network

Avenza Map Product Websites

- Incident Specific Map Site
- Tonto General Fire Map Site
- Tonto Fuels Map Site

How to Guides

- FS Topo Bulk Download QR
- Tonto General Fire Maps QR



Avenza – Bulk Load

- PDF How to Document with QR that will download all 24k FS Topo Quads that cover the Forest into a Map Collection
- This Bulk Load will download 102 FSTopo maps into a Collection roughly 5 GB in size
- The download process may take up to 1 hour to complete depending on network speeds
- Second page of document has QRs for Topo Quads by individual Districts that are smaller file sizes



Tonto Fire Dashboard

Navigate using Tabs

Tonto Fire Dashboard

	AZ-TNF Fires Not Out	2025 AZ-TNF Fires	2025 AZ-PHC Fires	Tonto Fire History	Tonto PODs	US Wildfire Activity	Fire WX Fore	cast General I	ire Info Sites N	IFC Open Data
	Tonto Fire History	Prescott	Yavapai- Apache Nation			977] ×		INCIDENT LIST		
			Reservation	65		FIRE NAME	DISTRICT	CAUSE	ACRES	DATE
			280			Cave Creek Complex (H	. Cave Creek	Natural	248,310.00	06/20/2005
	FILTER DASHBOARD		(market a	- and	Sitgreaves	Bush	Mesa	Human	193,455.00	06/13/2020
	Multiple Selections Allowed			ALC: NO		Telegraph	Globe	Human	180,757.00	06/04/2021
F			A Martine - M	102 3 C		Woodbury	Mesa		123,875.00	06/08/2019
만	Year	Prescott	A			Willow	Cave Creek	Natural	119,500.00	06/23/2004
	Month	National Forest	San Parts	ALL CARA		Edge	Mesa	Natural	72,000.00	07/15/2005
ш	Month	/ 🕻	1950 Ca 22' C	Contractory of the		Lone	Tonto Basin	Human	65,061.00	04/26/1996
ŧ	Date Pange			1. S. C. S.		Griffin	Globe	Natural	61,821.00	08/17/2020
▦	Date Kalige		Star Star		C	Backbone	Other	Natural	40,855.00	06/16/2021
Æ	Fire Size		Contra 15 St			Verde	Cave Creek	Natural	35,678.00	06/28/1979
Ξ.		i / 72	the share of	1 - 1 - 1 - 1 - 1	N 84 - 2	Brooklyn	Cave Creek	Natural	33,550.00	07/07/2017
>.	Fire Cause			2000		Juniper	Pleasant Valley	Natural	30,641.00	05/20/2016
~		74		A IO NELEMP Forest		Dude	Payson	Natural	28,480.00	06/24/1990
	Ranger District		272.5	2 Participation	and a straight of the straight	Sand Stone	Cave Creek	Natural	27,390.00	07/25/2024
<u>*</u>				odo o u elt		Sawtooth	Mesa	Natural	24,729.00	05/30/2020
		Surprise	\sim	Sec. Yes and the		Skeleton	Other	Natural	24,034.00	08/03/2024
		Peoria		Sand and the second		Salt	Tonto Basin	Natural	21,670.00	08/17/2020
		Glendale	Scottedala		a data ana s	Basin	Cave Creek	Natural	21,203.72	07/06/1995
		Phoe	nix	16 A . 46 .	X	Sunflower	Mesa		17,618.00	05/11/2012
			Mesa	San all of	Globe San Carlos	Three	Tonto Basin	Natural	16,100.00	06/20/2005
			Gilbert		Reservation	Siphon	Mesa	Human	15,527.00	09/10/2024
						West	Payson	Natural	15,074.00	08/28/2024
			XT			Bart	Cave Creek	Human	14,534.00	05/14/2005
				2025Y	K C	Sears	Cave Creek	Undetermined	14,476.00	09/25/2020
			Glia River Indian Reservation	× × ×		Wildcat	Cave Creek	Human	14,402.00	05/18/2024
						+ n		Klashi ing l	12 200 00	00/05/1075
		20 km 20 mi Marc	eopa (Ak	Florence Check for	or More Info	-	14,014		2,03 <u>5,</u>	148
		Esri, TomTom, Garmin,	SafeGraph, FAO, METI/NASA, USGS, Bu	ireau of Land Management, EPA, NF	PS, USFWS Powered	1 uy Tari	Fires		Acres	
		Map Info	rmation and Disclaimer			Fire List Fire	e Cause Ranger D	istrict Date		

Tonto GIS SharePoint Site



Tonto Fire GIS Products have been updated for 2025

- Multi-Factor Authentication (MFA) for NIFC Org Accounts
 - Set up guide
 Reset MFA with the Support Request Form
- Tonto Fire GIS Field Maps:
 - 2025 Tonto NF IA Field Map Used for Suppression Incidents
 - BASIC 2025 Tonto NF IA Field Map Used for Suppression Incidents
 - Includes only National Data Layers. Can be utilized anywhere.
 - <u>Either Tonto IA or BASIC Tonto IA can be utilized for Incidents. Includes National Data</u> Layers in Both.
 - Tonto NF Fuels Field Map Used for Fuels Treatments and Prescribed Fires
 - TRAINING 2025 Tonto NF IA Field Map Used for Training



Tonto IA Field Map Access:

Reminders

- Log in to Field Maps with NIFC Org account <u>BEFORE</u> going into the field to set up MFA
- Technology is always changing, so bear with us
- Ultimately, Perimeters from IA Field Map can be certified in InFORM and then will be entered for end of year reporting
- Data is tied to National Databases
- If on Team Fire, Use the Team's Field Map
- Any issues Contact GIS staff
 - Edits can be done easily and quickly on our end



FEEDBACK

- What Works?
- What Doesn't Work?
- Ideas for the Future?
 QUESTIONS?



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