



Integrated Reporting of Wildland-Fire Information

Integration Specifications

Extended Team

PREPARED BY: IRWIN CORE TEAM
LAST MODIFIED DATE: OCT 15, 2014
DOCUMENT VERSION: 1.5.1
IRWIN VERSION: 20140709.1.2.1

TABLE OF CONTENTS

Table of Contents 2

1 Introduction..... 5

 1.1 Purpose..... 5

 1.2 Target Audience..... 5

 1.3 Authors and Participants 5

 1.4 Document Overview 5

 1.5 Associated Documents..... 5

2 Conceptual Overview..... 6

3 Logical Architecture 7

 3.1 Environments 7

4 Approach to Integration 8

 4.1 **Discovery Process**..... 8

 4.2 **Authentication and Authorization**..... 9

 4.3 **Continuous Polling**..... 9

 4.4 **Integration Points** 10

 4.4.1 Retrieving Incidents 10

 4.4.2 Submitting a new Incident 10

 4.4.3 Updating an Incident..... 10

5 Web API..... 11

 5.1 **IRWIN Status Codes**..... 14

 5.1.1 Success Status Example (Submit Incident)..... 14

 5.1.2 Fail Status Example (Submit Incident)..... 15

 5.1.3 Status Codes..... 15

 5.2 **Generate Token**..... 15

 5.2.1 Description 17

 5.2.2 Request Parameters..... 17

 5.2.3 Response Properties 18

 5.2.4 Example Usage 18

5.2.5	JSON Response Syntax.....	18
5.2.6	JSON Response Example	18
5.3	Get Updates.....	18
5.3.1	Description	19
5.3.2	Request Parameters.....	19
5.3.3	Example Usage	20
5.3.4	JSON Response Syntax.....	20
5.3.5	JSON Response Example	20
5.4	Get Incidents	22
5.4.1	Description	22
5.4.2	Request Parameters.....	23
5.4.3	Example Usage	24
5.4.4	JSON Response Syntax.....	24
5.4.5	JSON Response Example	24
5.5	Submit Incident.....	26
5.5.1	Description	26
5.5.2	Request Parameters.....	26
5.5.3	Example Usage	34
5.5.4	JSON Response Syntax.....	35
5.5.5	JSON Response Example	35
5.6	Update Incident.....	36
5.6.1	Description	36
5.6.2	Request Parameters.....	36
5.6.3	Example Usage	45
5.6.4	JSON Response Syntax.....	45
5.6.5	JSON Response Example	45
5.6.6	JSON Response Example : Skipped Elements	45
5.7	Get Conflicts	47
5.7.1	Description	47
5.7.2	Request Parameters.....	48
5.7.3	Example Usage	49

5.7.4	JSON Response Syntax.....	49
5.7.5	JSON Response Example	49
6	Authorization Roles	Error! Bookmark not defined.
7	Authoritative Data Sources	50
7.1	Legend.....	50
7.2	Default Permission Matrix.....	51
7.3	ICS209 Permission Matrix.....	53
8	Data Element Dictionary.....	55

1 INTRODUCTION

1.1 PURPOSE

This document introduces and expands upon those topics necessary to begin data exchange through the IRWIN capability. A formal discovery process is required to obtain an authentication credential in order to access IRWIN; this document is not a replacement for that process.

1.2 TARGET AUDIENCE

This document is intended for IRWIN Extended Team System Developers responsible for modifying their application for data exchange with IRWIN.

1.3 AUTHORS AND PARTICIPANTS

Contributing Authors	Role/Title	E-mail Address	Phone Number
Evan Mosby	Technical Lead	emosby@esri.com	909-793-2853 x4394
Roshelle Pederson	Delivery Lead	Kimber_Pederson@ios.doi.gov	208-334-6190
Jaymee Fojtik	Project Manager	Jaymee_Fojtik@ios.doi.gov	208-334-6191

1.4 DOCUMENT OVERVIEW

The Technical Specification document is structured as follows:

- * **Section 1.0. Introduction**
- * **Section 2.0. Conceptual Overview.** Describes the IRWIN technical concept.
- * **Section 3.0. Logical Architecture.** Describes the IRWIN Logical Architecture.
- * **Section 4.0. Approach to Integration.** Explains integration with IRWIN, from the discovery phase, through specific integration points
- * **Section 5.0. Web API.** Details each IRWIN API web operation
- * **Section 6.0. Data Element Authorization Matrix.** Details authorization Data Element x System x Action relationship

1.5 ASSOCIATED DOCUMENTS

The following documents also provide governance and instruction for the IRWIN development project:

- * IRWIN – Requirements, User Stories & Conceptual Architecture
- * IRWIN – Extended Team Project Management Plan
- * IRWIN – Release Management Plan

- * IRWIN – Test Plan (Under Development)
- * IRWIN – Installation Guide (To Be Development)
- * IRWIN – Operations and Maintenance Guide (To Be Development)

2 CONCEPTUAL OVERVIEW

IRWIN is a web Application Programming Language (API) designed to broker data of common wildland fire incidents across various other applications. This API exposes standard Create, Read, Update, and Delete (CRUD) as well as utility web operations, allowing participating systems to interact with a common relational database. The IRWIN system is not intended to be a traditional “full stack” system, thus it relies on participating system’s to provide visualization. IRWIN is not an archival data store as it currently purges data related to an incident based on business rule triggers.

IRWIN’s role is to provide a common API for many systems to create and edit incident information, or retrieve updated incident data on demand. With the understanding the participating systems leverage different core technologies, languages, platforms, are in varying lifecycle stages, and have different business rules, the API is designed to allow as much flexibility as possible but constrain participants to defined and accepted standards.

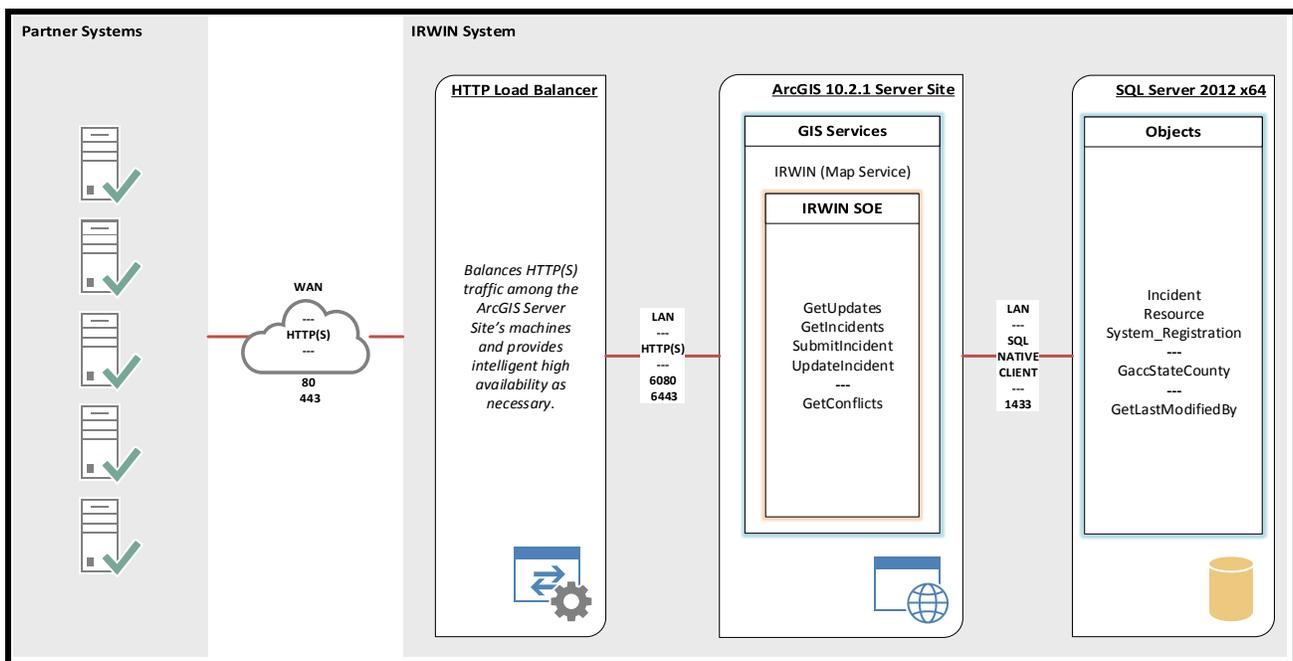
Systems that participate with IRWIN will need to be mindful of their user workflows when creating, updating, or deleting incident information. These actions are considered “Integration Points “for IRWIN. When a user performs one of these actions in the participating application, in addition to the current system handling, integration with IRWIN requires additional web calls to IRWIN web service(s).

3 LOGICAL ARCHITECTURE

The IRWIN system consists of 3 primary components

- * **HTTP Load Balancer:** Accomplishes balancing load among the IRWIN application servers, allowing horizontal scaling of the IRWIN system
- * **ArcGIS 10.2.1 for Server:** The primary application server COTS technology allows geospatial related information to be shared across the web.
 - o IRWIN Server Object Extension (SOE): Allows custom methods to be exposed via ArcGIS Server web services.
- * **SQL Server 2012:** The relational database utilized as IRWIN’s data store
 - o ArcGIS 10.2 Spatial Database Engine (SDE): The relational database COTS technology which works ArcGIS Server to maintain geospatial related information.

Figure 1: IRWIN Logical Architecture



3.1 ENVIRONMENTS

The following describes the various IRWIN environments. Utilize the appropriate base URL when connecting to that IRWIN environment.

ENVIRONMENT:	BASE URL:	ACCESSIBILITY:
Development	https://irwinags.esri.com	Irwin Development Team
Test	https://irwint.doi.gov	Partner Systems
Operational Acceptance	https://irwinoat.doi.gov	Partner Systems
Production	https://irwin.doi.gov	Partner Systems

4 APPROACH TO INTEGRATION

At a high level, integration with IRWIN involves understanding the subject application's user workflows to understand where users CREATE new incidents, EDIT existing incidents, or DELETE existing incidents. The results of these actions are "Integration Points" where the application should be extended to include calls to IRWIN web services.

Besides the specific integration points mentioned above, applications will also need to maintain synchronization with IRWIN in order to acquire data updates from other participating systems; this should be accomplished by creating a process to continuously poll IRWIN every few seconds. In this manner, all systems should maintain a high degree of data integrity, allowing for more efficient data integration across applications.

A discovery process will be conducted with each system integrating with IRWIN to help facilitate and analyze for integration points.

*It is important to note that the IRWIN API is under development.
This living document may not discuss features in-development or designated for future iterations.*

4.1 DISCOVERY PROCESS

All systems targeted for integration will work through a mutual discovery process with the IRWIN development team to evaluate the technical integration. Over the course of this process, the primary focus will be to understand common workflows to discover those Integration Points. Typically, these workflows are diagrammed, and then expanded to analyze how the integration with IRWIN might occur.

The envisioned outcome of the discovery process is a mutual understanding between the IRWIN core and extended teams regarding how to integrate. The following key questions drive a standard discovery process:

- **Integration Points**
 - Does the application currently communicate over HTTP/S?
 - How does the application create new incidents?
 - How does the application update existing incidents?
 - How does the application read incident data?
- **Data Elements**
 - What data elements does the application require to minimally define an incident?
 - Does the application share information with other applications?
 - What data elements are leveraged across other integrated systems?

4.2 AUTHENTICATION AND AUTHORIZATION

All integrated applications which have gone through the discovery process will be granted a login credential, allowing access to the API. Standard procedure will be to issue a single credential per integrated application. Currently, credentials should be valid across IRWIN environments (TEST / OAT&DR / PROD) to ease potential failover scenarios.

Authentication credentials will be supplied as the partner system begins development

The IRWIN authorization mechanism is multi-tiered. Authorization is configured as follows:

1. **Web Service Level:** Integrated systems will be restricted to those web services required for integration
2. **Web Method Level:** Integrated systems will be restricted to those web service methods required for integration See *AUTHORIZATION ROLES (ERROR! REFERENCE SOURCE NOT FOUND.)* for details.
EXAMPLE: A read only system will not have access to create methods
3. **Data Element Level:** Integrated systems CREATE and UPDATE privileges will be restricted to those data elements required for integration. All systems can READ all data. See *AUTHORITATIVE DATA SOURCES (8)* for further detail. *EXAMPLE: A system allowed to update incidents may not be able to alter all data elements as another system is the authoritative source.*

Authentication is accomplished via the *GENERATE TOKEN (7.1)* web operation. It is important to note that the authorization token has an expiration length defined upon request, thus partner systems are responsible requesting a new token upon expiration.

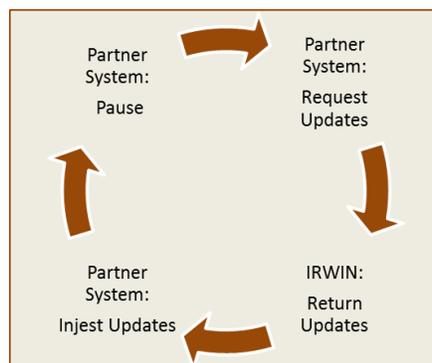
4.3 CONTINUOUS POLLING

Integrated systems must regularly poll IRWIN to acquire updated incident information shared from other systems. This standard long-polling technique will require all integrated systems to maintain a high level of synchronization in order to preserve cross system incident integrity.

Polling is accomplished by the utilizing the GetUpdates web operation.

At a high level, the continuous polling process could be diagrammed as in the below figure.

Figure 2 : Continuous Polling



4.4 INTEGRATION POINTS

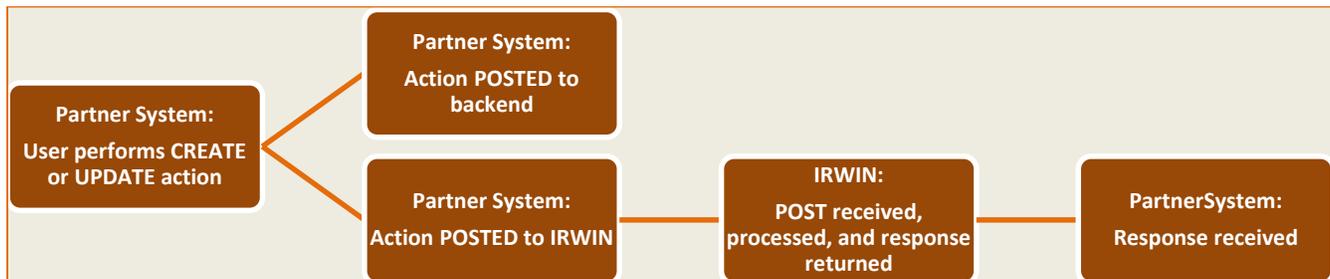
Systems that integrate with IRWIN will go through a vetting process where common workflows are observed and analyzed to determine where points of integration will occur. Typically, these interactions will occur when the user performs one of the following actions within the host application:

- GET new and updated incidents
- CREATE a new incident
- UPDATE a previous incident’s information

For instance, when a user attempts a write action in the host application, most applications will insert or update the information into their own Relational Database Management System (RDBMS). Integration with IRWIN will call for this information to also be pushed to IRWIN via a HTTP GET or POST. In this manner, actions that affect an incident’s definition will be immediately injected to IRWIN for sharing to other systems. A *DATA ELEMENT PERMISSION MATRIX (8.2)*, defines which systems have precedence for updating a created incident.

At a high level, a generic integration point is diagramed in the below figure:

Figure 3 : Generic Integration Point



4.4.1 RETREIVING SPECIFIC INCIDENTS

Retrieving the data for one or more known IrwinIDs is easily accomplished via the *GET INCIDENTS* web method.

4.4.2 SUBMITTING A NEW INCIDENT

Submitting a new incident to IRWIN is a multi-request workflow. Systems are first required to validate their incident before submit by providing specific identifying information via the *GET CONFLICTS* web method. If successful, the system may then submit the incident via the *SUBMIT INCIDENT* web method.

NOTE: all incidents have minimum required attributes for submit – see the *DATA ELEMENT DICTIONARY* for details.

4.4.3 UPDATING AN INCIDENT

Incidents may be updated via the *UPDATE INCIDENT* web method by providing the known IrwinID, the attributes to update and their values. Update Incident is governed by a permission hierarchy known as

the Authoritative Data Source (ADS) matrix, which prevents systems of lower precedence from updating data elements controlled by systems of higher precedence – see *AUTHORITATIVE DATA SOURCES* for further detail.

4.5 WORKFLOW CONSIDERATIONS

The following attempts to catalogue those common workflows encountered while discussing integration with various systems, and what considerations they've had to tackle.

4.5.1 MAINTAINING SYNC

Most systems maintain sync with IRWIN by periodically requesting GetUpdates, which provides an array of all incidents created or updated since a given datetime. Depending on the partner system's needs, there are a few ways to accomplish this:

Provide the fromDateTime parameter, then parse next fromDateTime from response:

A common way to accomplish sync is to request GetUpdates with simply the fromDateTime parameter. This returns everything from the specified time till the transaction occurs at the database. This is the best way to keep up to date, but doesn't provide the upper time bound in the response. This places the responsibility of the next request's fromDateTime on the client.

A good way to determine the next fromDateTime value is when parsing through the response incidents. Upon examining each incident in the response, capture the latest ModifiedOnDateTime value from the array of incidents, and use that as the next time. If no data is returned, just use the datetime last supplied.

Provide the fromDateTime and toDateTime parameter:

Another approach is to use the fromDateTime and toDateTime values to request blocks of time. This allows the client to fully control the block of time, and as long as blocks are contiguous, no updates will be missed

4.5.2 MANAGING INCOMING DATA

Due to IRWIN's exchange of data, incidents will be created or changed over time from other systems, all according to the data dictionary and ADS permission matrix.

Depending on the partner system, not all incidents may need to be stored, however those incidents where users are actively reading or writing data will need to be linked to IRWIN (via an IrwinID) and relevant updates discovered (via GetUpdates), stored, and displayed to the user. It has been noted that as more systems become integrated with IRWIN, users expect data to flow and update.

There are a few data patterns which affect the status of the incident and may affect the way the incident is handled in the partner system. These are detailed in *DATA PATTERNS AND DEFINITIONS (4.6)*.

4.5.3 SUBMITTING INCIDENTS

When submitting incidents, it is vitally important that GetConflicts is called and the response managed properly before submitting the incident to IRWIN. This prevents potential duplicates from entering IRWIN and causing downstream confusion from other systems, but also may allow the user to more quickly link the incident they intend to create with one already in IRWIN.

Several things must be accomplished when managing the response of GetConflicts (if incidents are returned):

- The user must have the ability to intelligently determine if any of the returned incidents are what they are looking for.
 - GetIncidents must be called using the IrwinIDs returned from GetConflicts. This will return each incident’s data elements
 - Most likely will require some display of the user’s data alongside the incident data from GetIncidents, in order for the user to make an intelligent decision
 - The display will need some interaction, allowing the user to choose or discard the IRWIN incidents.
 - If the user chooses an IRWIN incident, the application will need to merge the IRWIN data with the user’s, and POST an update to IRWIN with relevant new data from the user.
 - If the user discards the IRWIN incidents, the application would need to submit the data to IRWIN to acquire an IrwinID.

4.6 DATA PATTERNS AND DEFINITIONS

4.6.1 CONFLICTING INCIDENTS

Some incidents will be in conflict, which is determined by the GetConflict rules. This typically will occur when incidents occur along the border of 2 dispatch centers, who both respond, or when a write system erroneously places an incident. Conflicting incidents are typically time based, that is, the second or third incident in time will be marked as conflicting with the first, whereas the first incident in the conflict will not. Resolving conflicts will be conducted with by IRWIN admins and/or the representatives of systems which created and altered the conflicting incidents. Once a resolution relationship is established, it will be indicated with ConflictParentIrwinID.

Data Elements		Definition
InConflict	ConflictParentIrwinID	
False	null	No Conflict
True	null	Conflict detected & awaiting resolution
True	<IrwinID>	Conflict resolved in favor of the Parent

4.6.2 DEACTIVATED INCIDENTS

Erroneous incidents are known to enter the IRWIN system and be propagated out. This can be for any number of reasons (simple error or Conflict), and although hopefully minimized, to be expected. Upon

discovery, these incidents are analyzed, data merged to the chosen valid incident, and other(s) will be deactivated. A deactivated incident will have the following signature:

Data Elements	Definition
IsActive	
true	Incident is valid in IRWIN and actively receiving updates
false	Incident is closed (no longer valid) and not receiving updates

4.6.3 COMPLEX HIERARCHIES

The term “Complex” represents a hierarchical relationship between multiple incidents. Due to differing methods of handling the Complex hierarchy across systems, an Incident may be a Complex too. IRWIN currently represents a “complex parent” with the data element `IsComplex` and its children with `ComplexParentIrwinID`.

Data Elements		Definition
IsComplex	ComplexParentIrwinID	
True	null	Incident is a Complex
True	Its own <IrwinID>	Incident is a Complex and Incident
False	null	Incident is neither a complex nor part of one
False	<IrwinID> of parent	Incident is not a Complex, but is part of one.

5 AUTHORIZATION ROLES

IRWIN controls access to individual API methods and validates certain fields based on Authorization Roles. Each system integrating with IRWIN will be placed into a role defined by the Discovery process.

The following Roles are available:

ROLE:	DETAIL:	SYSTEMS:
IRWINREAD	Grants access to read only methods: <ul style="list-style-type: none"> • GenerateToken • GetIncidents • GetUpdates 	EGP ROSS CAJIBR RSAC SOU SMARTFIRE GEOMAC
IRWINREADWRITE	Grants access to read and write methods: <ul style="list-style-type: none"> • GenerateToken • GetIncidents • GetUpdates • SubmitIncident • UpdateIncident Defines minimum required fields when submitting and incident via <code>SubmitIncident</code> .	ICS209 WFDSS FIRECODE

IRWINCAD	<p>Grants access to read and write methods:</p> <ul style="list-style-type: none"> • GenerateToken • GetIncidents • GetUpdates • SubmitIncident • UpdateIncident <p>Defines minimum required fields when submitting and incident via SubmitIncident. Allows CADs to update incident records where InConflict=true.</p>	WildCAD IFM
IRWINFIRECODE	Allows FireCode to update the FireCode and FireCodeRequested data element on Incidents where InConflict=true.	FIRECODE

6 API CONSIDERATIONS

The IRWIN API is currently under development, thus many operations discussed during the Discovery process may not be detailed here as this document discusses operations currently in the API

6.1 STATUS CODES

IRWIN returns a variety indicators and status codes common throughout the API, detailing the success or failure of actions. In addition, if an element is not allowed based on the systems ADS permission hierarchy, then that element is listed in the `skippedElements` portion of the response.

Upon `SubmitIncident` or `UpdateIncident`, a `success` key is returned with a potential value of `true` or `false`, indicating if the action was successful or not. If `success=false`, an `error` key is also returned with additional information such as the `code` indicating what sort of error, and a `description` providing additional details.

6.1.1 SUCCESS STATUS EXAMPLE (SUBMIT INCIDENT)

```
{
  "success": true,
  "irwinId": "3e4667f8-2cae-42e7-bd8c-a44d83c64f6f",
  "skippedElements": {}
}
```

6.1.2 FAIL STATUS EXAMPLE (SUBMIT INCIDENT)

```

{
  "success": false,
  "error": {
    "code": 8004,
    "description": "dispatchCenterId: Value is required for CAD users."
  },
  "skippedElements": {
    "CalculatedAcres": "Read-Only"
  }
}

```

6.1.3 STATUS CODES

The following status codes are used if success=false.

Description	Code
Initialization Exception	8001
Configuration Exception	8002
Unauthorized Exception	8003
Validation Exception	8004
Json Geometry Exception	8005
Operation Failed Exception	8006

6.2 PARAMETER AND DATA ELEMENT FORMAT

6.2.1 CASE SENSITIVITY

The API web methods are case sensitive and vary whether defining a web parameter or parsing a response:

For all web method parameters, camel case is used.

Example: fromDateTime, dailyAcres, containmentDateTime

For all response data, Pascal case is used

Example: IrwinId, DailyAcres, ContainmentDateTime

6.2.2 GUIDS

GUID data types have different formats, and vary whether defining a web parameter or parsing a response:

For all web method parameters, a standard 5 group alphanumeric pattern is used.

Example: 6D378196-28E4-4E8C-A7DA-6707151C6F1B

For all response data, brackets surround the pattern.

Example: {6D378196-28E4-4E8C-A7DA-6707151C6F1B}

6.2.3 DATES AND TIMES

IRWIN had several data elements and parameters which represent dates and times. To provide a common way to express this, IRWIN will send and receive date time values in the ISO 8601 (Combined date and time in UTC) format, which would be expressed as YYYY-MM-DDThh:mm:ssZ, or 2014-09-02T11:28:56Z

All date times, whether sending or receiving, are in the above format, and expressed in UTC time. There is no option to change time zone.

6.2.4 GEOGRAPHIC DATA

All spatial geometries are expressed in Decimal Degrees

6.3 DELETING OR CLEARING DATA

Although IRWIN does not allow an Incident or data element to be deleted, it does allow certain data elements to be “cleared” of data (if the ADS allows it) in order to correct a mistake via UpdateIncident.

All write methods skip elements which do not contain data. For instance, if the following data were posted via UpdateIncident, only those with non-empty values (irwinId and firecodeRequested) would be considered by IRWIN. DailyAcres would be skipped. Sending the value null accomplishes the same thing.

```
irwinId=6D378196-28E4-4E8C-A7DA-6707151C6F1B&dailyAcres=&firecodeRequested=true
```

Because of this, sending a blank value (as dailyAcres above) would achieve nothing. In order to “clear” a data element, the following special tokens may be sent:

- A pound (#) character
 - Example: dailyAcres=#
- A null string (“null”) with quotes around it.
 - Example: dailyAcres=”null”

```
irwinId=6D378196-28E4-4E8C-A7DA-6707151C6F1B
&dailyAcres=#
&firecodeRequested=true
or
irwinId=6D378196-28E4-4E8C-A7DA-6707151C6F1B
&dailyAcres="null"
&firecodeRequested=true
```

Legacy:
Certain GUID type data elements allow an “all zero” (0000000-0000-0000-0000-000000000000) GUID to be passed as well.

7 API METHODS

7.1 GENERATE TOKEN

URL: <https://<base-url>/arcgis/tokens/generateToken>
Authorized Roles: IRWINREAD, IRWINREADWRITE, IRWINCAD
Version Introduced: 20140317.4

7.1.1 DESCRIPTION

This web method generates an access token in exchange for user credentials that can be used by clients to access secured IRWIN services.

Use HTTP POST – GET is prohibited.

The header Content-Type will need to be set to application/x-www-form-urlencoded

'Content-Type': 'application/x-www-form-urlencoded'

The access token represents the authenticated user for a certain amount of time to all other API functionality. Developers using the API must take care to protect the token against malicious use just as they would the original credentials, and must be prepared to acquire a new token by reissuing the generateToken request as an old token expires. Expired tokens will be rejected by the server.

The maximum value of the expiration time is 60 minutes. Requests for tokens larger than this time will return a token for the maximum allowed expiration time. Applications are responsible for renewing expired tokens, expired tokens will be rejected by the server on subsequent requests that use the token.

7.1.2 REQUEST PARAMETERS

Parameter	Details
f	The response format. <ul style="list-style-type: none"> • html : response is formatted in HTML (Default) • json : response is formatted in JSON • pjson : response is formatted in readable JSON
username	The user who wishes to get a token
password	Password of user who wishes to get a token
client	The client identification type for which the token is to be generated. <ul style="list-style-type: none"> • If the value is specified as referer, the referer parameter must be specified. • If the value is specified as ip, the ip parameter must be specified. • If the value is specified as requestip, the IP address from where the request originated is used.

referrer	The base url of the webapp that will invoke the request to access secured resource. This parameter must be specified if the value of the client parameter is <code>referrer</code> .
ip	The IP address of the machine that will invoke the request to access secured resource. This parameter must be specified if the value of the client parameter is <code>ip</code>
expiration	<p>The token expiration time in minutes.</p> <p>The default is 60 minutes.</p> <p>Example: <code>expiration=60</code> (1 hour)</p> <p>The maximum value of the expiration time is 60 minutes. Requests for tokens larger than this time will return a token for the maximum allowed expiration time. Applications are responsible for renewing expired tokens, expired tokens will be rejected by the server on subsequent requests that use the token.</p>

7.1.3 RESPONSE PROPERTIES

Parameter	Details
token	The generated token
expires	The expiration time of the token in milliseconds since EPOCH (Jan 1 st 1970)

7.1.4 EXAMPLE USAGE

Example 1: Simple Generate Token using `client=requestip`

POST URL	https://irwint.doi.gov/ArcGIS/tokens/generateToken
POST BODY	<pre>username=system1_username &password=system1_password &client=requestip &f=json</pre>

7.1.5 JSON RESPONSE SYNTAX

<pre>{ "token": "<token generated>", "expires": <date shown in EPOCH time> }</pre>
--

7.1.6 JSON RESPONSE EXAMPLE

<pre>{ "token": "E60M4Gsc-h4Q8plqQ26PgOmVUKIwR6kOAHiAF17cGzI.", "expires": 1345142184717 }</pre>
--

7.2 GET UPDATES

URL:	<a href="https://<base-url>/arcgis/rest/services/Irwin/MapServer/exts/Irwin/GetUpdates">https://<base-url>/arcgis/rest/services/Irwin/MapServer/exts/Irwin/GetUpdates
-------------	---

Authorized Roles: IRWINCAD, IRWINREAD, IRWINREADWRITE
Version Introduced: 20140317.4

7.2.1 DESCRIPTION

Accepts a valid UTC date/time string representing the time from which updates should be acquired. Incidents that have updated or submitted since the input time will be returned in an array. Optionally, an upper time bound can be expressed using the `toDateTime` parameter, allowing updates to be acquired over a specific time period.

GetUpdates returns the current state of each incident updated or submitted during the time requested.

CONTINUOUS POLLING: Partner Systems continuously polling IRWIN should parse for the latest ModifiedOnDateTime value from the array of returned incidents in order to determine the fromDateTime value for the next poll, rather than utilizing their own system clocks.

This will help partner's whose system clocks vary drastically from IRWIN's to acquire all updates IRWIN offers.

7.2.2 REQUEST PARAMETERS

Parameter	Details
token	Required for role(s): IRWINCAD, IRWINREAD, IRWINREADWRITE Authentication token as returned from Generate Token
f	Optional Description: The response format. Default returns HTML. <ul style="list-style-type: none"> html : response is formatted in HTML json : response is formatted in JSON pjson : response is formatted in readable JSON
fromDateTime	Required for role(s): IRWINCAD, IRWINREAD, IRWINREADWRITE Description: A string representing the UTC date and time from which updates should be returned. Format: <ul style="list-style-type: none"> Type:string Pattern: yyyy-mm-ddThh:mm:ssZ Example : fromDateTime=2013-03-10T14:23:00Z
toDateTime	Optional Description: An optional parameter used to define an upper data and time bound in UTC. If not defined, GetUpdates will return all updates to the current time Format: <ul style="list-style-type: none"> Type:string Pattern: yyyy-mm-ddThh:mm:ssZ Example : toDateTime=2013-03-10T14:23:00Z

7.2.3 EXAMPLE USAGE

Example 1: Simple Get Updates

GET URL	https://irwint.doi.gov/ArcGIS/.../irwin/getUpdates?
GET	fromDateTime=2013-03-10T14:23:00Z
PARAMETERS	

7.2.4 JSON RESPONSE SYNTAX

```
{
  "incidents": [
    {
      "irwinID": <incident0_irwinID>,
      "attributes": {
        "<incident0_field0>": <incident0_value0>,
        "<incident0_field1>": <incident0_value1>,
        ...
      },
      "pointOfOrigin": {
        "x": <x_value>,
        "y": <y_value>
      }
    },
    ...
  ]
}
```

7.2.5 JSON RESPONSE EXAMPLE

```
{
  "incidents": [
    {
      "irwinID": "{6D378196-28E4-4E8C-A7DA-6707151C6F1B}",
      "attributes": {
        "OBJECTID": 1,
        "IrwinID": "{6D378196-28E4-4E8C-A7DA-6707151C6F1B}",
        "CreatedOnDateTime": "2013-08-22T12:00:00Z",
        "IncidentTypeKind": "FI",
        "FinalAcres": 3825,
        "IncidentName": "HATHAWAY"
      },
      "pointOfOrigin": {
        "x": -116.82499999999999,
        "y": 34.003000000000004
      }
    },
    {
      "irwinID": "{1BAC52F2-3379-4112-A2C8-50CC1987C730}",
      "attributes": {
        "OBJECTID": 2,
        "IrwinID": "{1BAC52F2-3379-4112-A2C8-50CC1987C730}",
        "CreatedOnDateTime": "2013-08-22T12:00:00Z",
        "IncidentTypeKind": "FI",
        "FinalAcres": 534,
        "IncidentName": "MILL"
      }
    }
  ]
}
```

```
    "pointOfOrigin": {  
      "x": -117.06799999999998,  
      "y": 34.0810000000000074  
    }  
  ]  
}
```

7.3 GET INCIDENTS

URL:	<a href="https://<base-url>/arcgis/rest/services/Irwin/MapServer/exts/Irwin/GetIncidents">https://<base-url>/arcgis/rest/services/Irwin/MapServer/exts/Irwin/GetIncidents
Authorized Roles:	IRWINCAD, IRWINREAD, IRWINREADWRITE
Version Introduced:	20140317.4

7.3.1 DESCRIPTION

This operation returns an array of incidents, and optionally their resources, for the given IrwinIDs. If a list of fields is provided, then this method only returns those attributes for each incident; otherwise, it returns all attributes.

Field names can have a table identifier to distinguish between INCIDENT fields and RESOURCE fields, such as, INCIDENT.DiscoveryAcres and RESOURCE.FireResourceKind. If no table identifier is provided, fields are presumed to have the INCIDENT table identifier. If no RESOURCE fields are requested, but the `includeResources` parameter is true, then all RESOURCE fields are returned. If the `includeResources` parameter is false, then any RESOURCE fields requested are ignored. A full list of data elements and their corresponding Table Identifier can be found in section 8.

If `needsFireCode` is true, IRWIN returns all active incidents where `FirecodeRequested = true`. All other request parameters are ignored. This option would only be used by the FireCode partner system.

7.3.2 REQUEST PARAMETERS

Parameter	Details
token	Required for role(s): IRWINCAD, IRWINREAD, IRWINREADWRITE Description: Authentication token as returned from Generate Token
f	Optional Description: The response format. Default returns HTML. <ul style="list-style-type: none"> html : response is formatted in HTML json : response is formatted in JSON pjson : response is formatted in readable JSON
irwinIDs	Required for role(s): IRWINCAD, IRWINREAD, IRWINREADWRITE Description: A list of one or more IrwinIDs to return. Format: <ul style="list-style-type: none"> Type: string Pattern: <irwinId1>,<irwinId2>,... Example : irwinIds= 52fde2d3-8a7f-4cfd-8528-a042967e9fd3, dc0a8cda-7cbc-466f-9c86-b91dce43efdb
fields	Optional Description: A list defining specific fields to return. Unless specified, GetIncidents will return all fields. Format: <ul style="list-style-type: none"> Type: string Pattern: <field1>,<field2>,... Example : fields=IrwinID, IncidentTypeKind, IncidentName, RESOURCE.FireResourceStatus
needsFireCode	Optional Description: If true, queries IRWIN for all active incidents that have a FireCodeRequested value of true. All other parameters are ignored. Format: <ul style="list-style-type: none"> Type: string Pattern: true or false Example: needsFireCode=true
includeResources	Optional Description: If true and RESOURCE fields are defined in the fields parameter: only defined fields are returned. If true and no RESOURCE fields are defined in the fields parameter: all RESOURCE fields are returned. If false, all RESOURCE fields are withheld, even if defined in fields parameter. Format <ul style="list-style-type: none"> Type: string Pattern: true or false Example: includeResources=true

7.3.3 EXAMPLE USAGE

Example 1: Simple Get Incidents with fields query

GET URL	https://irwint.doi.gov/ArcGIS/.../irwin/getIncidents?
GET PARAMETER S	irwinIds=6D378196-28E4-4E8C-A7DA-6707151C6F1B,1BAC52F2-3379-4112-A2C8-50CC1987C730&fields=IrwinId,CreatedOnDateTime,IncidentTypeKind,FinalAcres,IncidentName&f=json

Example 2: Simple Get Incidents with fields and resources

GET URL	https://irwint.doi.gov/ArcGIS/.../irwin/getIncidents?
GET PARAMETER S	irwinIds=6D378196-28E4-4E8C-A7DA-6707151C6F1B,1BAC52F2-3379-4112-A2C8-50CC1987C730&fields=IrwinId,IncidentName,RESOURCE.FireResourceStatus&includeResources=true&f=json

7.3.4 JSON RESPONSE SYNTAX

```
{
  "incidents": [
    {
      "irwinID": <incident0_irwinID>,
      "attributes": {
        "<incident0_field0>": <incident0_value0>,
        "<incident0_field1>": <incident0_value1>,
        ...
      },
      "pointOfOrigin": {
        "x": <x_value>,
        "y": <y_value>
      }
    },
    ...
  ]
}
```

7.3.5 JSON RESPONSE EXAMPLE

```
{
  "incidents": [
    {
      "irwinID": "{6D378196-28E4-4E8C-A7DA-6707151C6F1B}",
      "attributes": {
        "OBJECTID": 1,
        "IrwinID": "{6D378196-28E4-4E8C-A7DA-6707151C6F1B}",
        "CreatedOnDateTime": "2013-08-22T12:00:00",
        "IncidentTypeKind": "FI",
        "FinalAcres": 3825,
        "IncidentName": "HATHAWAY"
      }
    }
  ]
}
```

```
    },
    "pointOfOrigin": {
      "x": -116.82499999999999,
      "y": 34.003000000000004
    }
  },
  {
    "irwinID": "{1BAC52F2-3379-4112-A2C8-50CC1987C730}",
    "attributes": {
      "OBJECTID": 2,
      "IrwinID": "{1BAC52F2-3379-4112-A2C8-50CC1987C730}",
      "CreatedOnDateTime": "2013-08-22T12:00:00",
      "IncidentTypeKind": "FI",
      "FinalAcres": 534,
      "IncidentName": "MILL"
    },
    "pointOfOrigin": {
      "x": -117.06799999999998,
      "y": 34.0810000000000074
    }
  }
]
}
```

7.4 SUBMIT INCIDENT

URL:	<a href="https://<base-url>/arcgis/rest/services/Irwin/MapServer/exts/Irwin/SubmitIncident">https://<base-url>/arcgis/rest/services/Irwin/MapServer/exts/Irwin/SubmitIncident
Authorized Roles:	IRWINCAD, IRWINREADWRITE
Version Introduced:	20140317.4

7.4.1 DESCRIPTION

This operation accepts parameters required to create a new incident with IRWIN. Submitted incidents have minimum required fields depending on the Partner System – see section 8 for details.

ADS

Partner systems may submit specific data elements based on the Authoritative Data Source (ADS) hierarchy of the incident. Attributes submitted to IRWIN via SubmitIncident which violate the ADS are skipped, allowing those which follow ADS to succeed. Skipped data elements are recorded and returned in an object of data elements, violation pairs, which contains the name of each element skipped and the reason for it. If the element is skipped because of a read-only violation, then the words “read-only” are returned after the data element name.

Systems submitting a new incident are expected to call GetConflicts and evaluate the response prior to SubmitIncident. This helps ensure duplicate incidents are not inserted and shared with all participating systems.

7.4.2 REQUEST PARAMETERS

Parameter	Details
token	Required for role(s): IRWINCAD, IRWINREAD, IRWINREADWRITE Description: Authentication token as returned from Generate Token
f	Optional Description: The response format. Default is HTML. <ul style="list-style-type: none"> html : response is formatted in HTML json : response is formatted in JSON pjson : response is formatted in readable JSON
fireDiscoveryDateTime	Required for role(s): CAD, READWRITE Description: A string representing the UTC date and time of the incident’s discovery. Format: <ul style="list-style-type: none"> Type: string Pattern: yyyy-mm-ddThh:mm:ssZ Example : fireDiscoveryDateTime=2013-03-10T14:23:00Z
pooResponsibleUnit	Required for role(s): CAD, READWRITE Description: A string representing the NWCG unit identifier for the agency responsible for fire protection at the point of origin. <ul style="list-style-type: none"> Format: string Pattern: SSUUUU

	Example: <code>pooResponsibleUnit=CABDF</code>
<code>localIncidentIdentifier</code>	<p>Required for role(s): CAD, READWRITE Description: A code uniquely identifying the incident for the local fire management organization. Format:</p> <ul style="list-style-type: none"> Type: <code>string[6,10]</code> (<i>prefix with 0's to meet minimum</i>) Pattern: <code>00DK1E</code> <p>Example: <code>localIncidentIdentifier=00DK1E</code></p>
<code>dispatchCenterId</code>	<p>Required for role(s): CAD Description: A identifier of the dispatch center responsible for supporting the incident Format:</p> <ul style="list-style-type: none"> Type: <code>string[0,6]</code> Pattern: <code>SSUUUU</code> <p>Example: <code>dispatchCenterId =CARRCC</code></p>
<code>incidentName</code>	<p>Required for role(s): CAD, READWRITE Description: The name assigned to an incident. Format:</p> <ul style="list-style-type: none"> Type: <code>string</code> <p>Example: <code>incidentName=Rim Fire</code></p>
<code>fireCause</code>	<p>Required for role(s): CAD Description: A broad classification of the incident Format:</p> <ul style="list-style-type: none"> Type: <code>string</code> Domain: <code>[Natural, Human, Undetermined]</code> <p>Example: <code>fireCause = Human</code></p>
<code>incidentTypeKind</code>	<p>Required for role(s): CAD, READWRITE Description: A code representing the kind of incident <i>NOTE: currently Irwin handles the FI type and its corresponding categories.</i> Format:</p> <ul style="list-style-type: none"> Type: <code>string</code> Domain: <code>[FI]</code> <p>Example: <code>incidentTypeKind = FI</code></p>
<code>incidentTypeCategory</code>	<p>Required for role(s): CAD, READWRITE Description: A subset of <code>incidentTypeKind</code>, whose code represents a more specific incident category. <i>NOTE: currently Irwin handles the FI type and its corresponding categories.</i> Format:</p> <ul style="list-style-type: none"> Type: <code>string</code> Domain: <code>[DF, FA, RX, SF, VF, WF, WU]</code> <p>Example: <code>incidentTypeCategory = WF</code></p>
<code>initialLatitude</code>	<p>Required for role(s): CAD Description: the latitude, in Decimal Degrees, of the incident's initial reported point Format:</p> <ul style="list-style-type: none"> Type: <code>number</code> Pattern: <code>DD.DDDDD</code>

	Example: initialLatitude = 43.325178
initialLongitude	<p>Required for role(s): CAD Description: the longitude, in Decimal Degrees, of the incident's initial reported point Format:</p> <ul style="list-style-type: none"> Type: number Pattern: DDD.DDDDD <p>Example: initialLongitude = -96.459961</p>
discoveryAcres	<p>Required for role(s): CAD Description: The estimated acreage of the incident upon discovery. Format:</p> <ul style="list-style-type: none"> Type: number Pattern: NN.N <p>Example: discoveryAcres = 12.5</p>
pooLatitude	<p>Required for role(s): CAD, READWRITE Description: the latitude, in Decimal Degrees, of the incident's ignition point of origin. Format:</p> <ul style="list-style-type: none"> Type: number Pattern: DD.DDDDD <p>Example: pooLatitude = 43.325178</p>
pooLongitude	<p>Required for role(s): CAD, READWRITE Description: the longitude, in Decimal Degrees, of the incident's ignition point of origin. Format:</p> <ul style="list-style-type: none"> Type: number Pattern: DDD.DDDDD <p>Example: pooLongitude = -96.459961</p>
pooOwnerUnit	<p>Optional Description: The NWCG unit identifier of the agency owning the land at the incident's point of origin Format:</p> <ul style="list-style-type: none"> Type: string Pattern: SSUUUU <p>Example: pooOwnerUnit = CABDF</p>
pooLandownerKind	<p>Optional Description: The classification of land owner at the incident's point of origin. Format:</p> <ul style="list-style-type: none"> Type: string Domain: [Federal, Other, Private] <p>Example: pooLandownerKind = Federal</p>
pooLandownerCategory	<p>Optional Description: A subset of pooLandownerKind, whose code represents a more specific landowner category. Format:</p> <ul style="list-style-type: none"> Type: string Domain: [BIA, BLM, BOR, DOD, DOE, NPS, USFS, USFWS, Foreign, Tribal, City, County, State, Private]

	Example: <code>pooLandownerCategory = DOE</code>
<code>initialResponseAcres</code>	<p>Required for role(s): na Description: The estimated area, in acres, burning at the time of initial response. Format:</p> <ul style="list-style-type: none"> Type: <code>number[0.1,]</code> Pattern: <code>NN.N</code> <p>Example: <code>initialResponseAcres = 13.1</code></p>
<code>initialFireStrategy</code>	<p>Optional Description: The fire strategy initially used Format</p> <ul style="list-style-type: none"> Type: <code>string</code> Domain: <code>[Full Suppression, Point Zone Protection, Confine, Monitor]</code> <p>Example: <code>initialFireStrategy = Full Suppression</code></p>
<code>firecodeRequested</code>	<p>Optional Description: If true, includes the incident in a list for the FireCode system to generate a FireCode. Default is false Format:</p> <ul style="list-style-type: none"> Type: <code>string</code> Domain: <code>[true, false]</code> <p>Example: <code>firecodeRequested = true</code></p>
<code>fireCode</code>	<p>Optional Description: the alphanumeric code used to track costs for incident suppression expenditures Format:</p> <ul style="list-style-type: none"> Type: <code>string[4]</code> Pattern: <code>CCCC</code> <p>Example: <code>fireCode = K1B4</code></p>
<code>fsJobCode</code>	<p>Optional Description: The code used to indicate the Forest Service job code for the incident. Format:</p> <ul style="list-style-type: none"> Type: <code>string[2]</code> Pattern: <code>CC</code> <p>Example: <code>fsJobCode = A5</code></p>
<code>fsOverrideCode</code>	<p>Optional Description: The code used to indicate the Forest Service override code for the incident. Format:</p> <ul style="list-style-type: none"> Type: <code>string[4]</code> Pattern: <code>NNNN</code> <p>Example: <code>fsOverrideCode = 1502</code></p>
<code>isFSAssisted</code>	<p>Optional Description: Indicates if the Forest Service assisted on the incident for which the responsible unit is not the Forest Service. Format</p> <ul style="list-style-type: none"> Type: <code>string</code> Domain: <code>[true, false]</code> <p>Example: <code>isFSAssisted = true</code></p>

isComplex	<p>Optional Description: Indicates if the incident has been designated a Complex. Format</p> <ul style="list-style-type: none"> Type: string Domain: [true, false] <p>Example: isComplex = true</p>
complexParentIrwinId	<p>Optional Description: The IRWIN ID of the complex which this incident is a member of. Special Case: Setting the value to all zeros (00000000-0000-0000-0000-000000000000) indicates the incident is no longer within the complex and IRWIN will null the value. Format:</p> <ul style="list-style-type: none"> Type: string Pattern: GUID (#####-####-####-####-#####) <p>Example: complexIrwinParentId = 6D378196-28E4-4E8C-A7DA-6707151C6F1B</p>
isMultiJurisdictional	<p>Optional Description: Indicates if the incident covers multiple jurisdictions Format</p> <ul style="list-style-type: none"> Type: string Domain: [true, false] <p>Example: isMultiJurisdictional = true</p>
isTrespass	<p>Optional Description: Indicates if the incident is a trespass claim or a bill will be issued. This results from a person or legal entity's negligent action causing damage to Forest Service property. Format</p> <ul style="list-style-type: none"> Type: string Domain: [true, false] <p>Example: isTrespass = true</p>
isReimbursable	<p>Optional Description: Indicates if the incident's fire code may be utilized by other agencies. Format</p> <ul style="list-style-type: none"> Type: string Domain: [true, false] <p>Example: isReimbursable = true</p>
isSeverity	<p>Optional Description: Indicates the fire code has been issues in anticipation of support needed Format:</p> <ul style="list-style-type: none"> Type: string Domain: [true, false] <p>Example: isSeverity = true</p>
dailyAcres	<p>Optional Description: A measure of acres reported within the daily fire perimeter of a fire. Format:</p> <ul style="list-style-type: none"> Type: number [0.1,]

	<ul style="list-style-type: none"> • Pattern: NN.N <p>Example: dailyAcres = 25.1</p>
calculatedAcres	<p>Optional</p> <p>Description: A measure of acres calculated (i.e. infrared) within the fire perimeter of a fire.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: number[0.1,] • Pattern: NN.N <p>Example: calculatedAcres = 25.1</p>
totalIncidentPersonnel	<p>Optional</p> <p>Description: the total number of personnel assigned to the incident</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: number • Pattern: NN <p>Example: totalIncidentPersonnel = 152</p>
fireMgmtComplexity	<p>Optional</p> <p>Description: The highest management level utilized to manage a wildland fire event. Format:</p> <ul style="list-style-type: none"> • Type: string • Domain: [Type 1 Incident, Type 2 Incident, Type 3 Incident, Type 4 Incident, Type 5 Incident, Type 1 Prescribed Fire, Type 2 Prescribed Fire, Type 3 Prescribed Fire] <p>Example: fireMgmtComplexity = Type 5 Incident</p>
incidentCommanderName	<p>Optional</p> <p>Description: The first (optional) and last name of the incident commander currently assigned to the incident</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: string[100] • Pattern: John Doe <p>Example: incidentCommanderName = John Doe</p>
incidentManagementOrganization	<p>Optional</p> <p>Description: The incident management organization for the incident</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: string • Domain: [Type 1 Team, Type 2 Team, Type 3 Team, Type 3 IC, Type 4 IC, Type 5 IC, NIMO, Unified] <p>Example: incidentManagementOrganization = NIMO</p>
fatalities	<p>Optional</p> <p>Description: The total number of deaths of personnel assigned to an incident. Format:</p> <ul style="list-style-type: none"> • Type: number • Pattern: NN <p>Example: fatalities = 0</p>
injuries	<p>Optional</p> <p>Description: The total number of reportable occupational injuries and illnesses that occurred in conjunction with an incident.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: number

	<ul style="list-style-type: none"> • Pattern: NN <p>Example: injuries = 0</p>
residencesDestroyed	<p>Optional</p> <p>Description: The total number of residences destroyed, or damaged to an extent requiring rebuilding, as a result of a fire.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: number • Pattern: NN <p>Example: residencesDestroyed = 0</p>
residencesThreatened	<p>Optional</p> <p>Description: The total number of residences threatened by the fire.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: number • Pattern: NN <p>Example: residencesThreatened = 0</p>
otherStructuresDestroyed	<p>Optional</p> <p>Description: The total number of structures, other than residences, destroyed as a result of a fire.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: number • Pattern: NN <p>Example: otherStructuresDestroyed = 0</p>
otherStructuresThreatened	<p>Optional</p> <p>Description: The total number of structures, other than residences, threatened by a fire.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: number • Pattern: NN <p>Example: otherStructuresThreatened = 0</p>
estimatedCostToDate	<p>Optional</p> <p>Description: Estimated total incident costs to date for the entire incident based on currently available information</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: number • Pattern: NNN.NN <p>Example: estimatedCostToDate = 354365.83</p>
estimatedContainmentDate	<p>Optional</p> <p>Description: The estimated date time in UTC a wildfire will be contained.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: string • Pattern: yyyy-mm-ddThh:mm:ssZ <p>Example: estimatedContainmentDate = 2011-06-18T:00:00:00Z</p>
percentContained	<p>Optional</p> <p>Description: Indicates the percent of incident area that is no longer active.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: number • Pattern: DD.DD <p>Example: percentContained = 65.00</p>

percentPerimeterToBeContained	<p>Optional</p> <p>Description: Indicates the percent of perimeter left to be completed.</p> <p>Format:</p> <ul style="list-style-type: none"> Type: number Pattern: DD.DD <p>Example: percentPerimeterToBeContained = 65.00</p>
ics209ReportDateTime	<p>Optional</p> <p>Description: The date and time in UTC that the ICS-209 report is prepared (created).</p> <p>Format:</p> <ul style="list-style-type: none"> Type: string Pattern: yyyy-mm-ddThh:mm:ssZ <p>Example: ics209ReportDateTime = 2011-06-18T:00:00:00Z</p>
ics209ReportStatus	<p>Optional</p> <p>Description: The version of the 209 report.</p> <p>Format:</p> <ul style="list-style-type: none"> Type: string[1] Domain: [I (initial), U (update), F (final)] <p>Example: ics209ReportStatus = U</p>
containmentDateTime	<p>Optional</p> <p>Description: The date and time in UTC a wildfire was declared contained.</p> <p>Format:</p> <ul style="list-style-type: none"> Type: string Pattern: yyyy-mm-ddThh:mm:ssZ <p>Example: containmentDateTime = 2011-06-18T:00:00:00Z</p>
controlDateTime	<p>Optional</p> <p>Description: The date and time in UTC a wildfire was declared under control.</p> <p>Format:</p> <ul style="list-style-type: none"> Type: string Pattern: yyyy-mm-ddThh:mm:ssZ <p>Example: controlDateTime = 2011-06-18T:00:00:00Z</p>
fireOutDateTime	<p>Optional</p> <p>Description: The date and time when a fire is declared "out".</p> <p>Format:</p> <ul style="list-style-type: none"> Type: string Pattern: yyyy-mm-ddThh:mm:ssZ <p>Example: fireOutDateTime = 2011-06-18T:00:00:00Z</p>
finalAcres	<p>Optional</p> <p>Description: The area measurement, in acres, defined by the final perimeter of a fire.</p> <p>Format:</p> <ul style="list-style-type: none"> Type: number Pattern: DD.DD <p>Example: finalAcres = 1358.42</p>

<p>inConflict</p>	<p>Optional Description: Indicates whether the incident is in conflict with another incident via the Conflict rules. Default is false Format: <ul style="list-style-type: none"> Type: string Domain: [true, false] Example: inConflict=false</p>
<p>conflictParentIrwinID</p>	<p>Optional Description: The IrwinID of the authoritative Parent of this incident, if deemed to be inConflict. Default is null Special Case: Setting the value to all zeros (00000000-0000-0000-0000-000000000000) indicates the incident is no longer in conflict and IRWIN will null the value. Format: <ul style="list-style-type: none"> Type: string Pattern: GUID (#####-####-####-####-#####) Example: conflictParentIrwinID=52fde2d3-8a7f-4cfd-8528-a042967e9fd3</p>
<p>resources</p>	<p>Optional Description: An array of JSON objects, where each object defines a RESOURCE assigned to the incident. FireResourceProvider and FireResourcePersonnelQuantity are not required. See <i>DATA ELEMENT DICTIONARY</i> for RESOURCE details Format: <ul style="list-style-type: none"> Type: Array of Objects Pattern: [{k0 : v0, k1 : v1, k2 : v2},...] Example: <pre>[{ FireResourceStatus: "Initial Response", FireResourceAgency: "State", FireResourceProvider: "AKDAS", FireResourceKind: "Equipment", FireResourceCategory: "Engine", FireResourceType: "Engine, Type 3", FireResourceQuantity: "2", FireResourcePersonnelQuantity: "6", FireResourceQuantityCurrentAsOf: "2014-08-14T06:00:00Z" }, ...]</pre></p>

7.4.3 EXAMPLE USAGE

Example 1: Simple Submit Incidents (IRWINREADWRITE)

GET URL <https://irwint.doi.gov/ArcGIS/.../irwin/submitIncident?>

```
POST fireDiscoveryDateTime=2013-10-29T10=30=00Z&  
PARAMETERS pooResponsibleUnit=CABDF&  
localIncidentIdentifier=CA1234&  
incidentName=FUNCTIONAL_TEST_TEMP&  
incidentTypeKind=FI&  
incidentTypeCategory=WF&  
pooLongitude=-96.459961&  
pooLatitude=43.325178
```

7.4.4 JSON RESPONSE SYNTAX

```
{  
  "success": <true, false>,  
  "irwinId": <IrwinId of the newly created incident>,  
  "skippedElements": {<skipped element0> : <skipped element0 details>,...}  
}
```

7.4.5 JSON RESPONSE EXAMPLE

```
{  
  "success": true,  
  "irwinId": "417a6c1e-602f-433d-93ae-b415f23c0457",  
  "skippedElements": {}  
}
```

7.4.6 JSON RESPONSE EXAMPLE (SKIPPED ELEMENTS)

```
{  
  "success": true,  
  "irwinId": "417a6c1e-602f-433d-93ae-b415f23c0457",  
  "skippedElements": {  
    "DispatchCenterID": "Read-Only"  
  }  
}
```

7.5 UPDATE INCIDENT

URL:	<a href="https://<base-url>/arcgis/rest/services/Irwin/MapServer/exts/Irwin/UpdateIncident">https://<base-url>/arcgis/rest/services/Irwin/MapServer/exts/Irwin/UpdateIncident
Authorized Roles:	IRWINCAD, IRWINREADWRITE
Version Introduced:	20140317.4

7.5.1 DESCRIPTION

This operation accepts an IrwinID representing the incident to update, and one or more attributes to update. Partner systems may update specific attributes based on the Authoritative Data Source (ADS) hierarchy of the incident.

ADS

Attributes submitted to IRWIN via UpdateIncident which violate the ADS are skipped, allowing those which follow ADS to succeed. Skipped attributes are recorded and returned in an object of element, violation pairs, which contains the name of the data element skipped and the reason.

- If the element is skipped because of a read-only violation, then the words “read-only” are returned after the data element name.
- If the element is skipped because of an ADS violation, then the name of the system that last modified the element is returned after the data element name.

Nulling Data Elements

Certain data elements are nullable by passing either the # (pound) character or "null" string (note: quotes are required). Nulling a data element would typically be used to correct a mistake. When a data element is nulled, the data and ADS is blanked out.

7.5.2 REQUEST PARAMETERS

Parameter	Details
token	Required Description: Authentication token as returned from Generate Token
f	Required Description: The response format. Default is HTML. <ul style="list-style-type: none"> • <code>html</code> : response is formatted in HTML • <code>json</code> : response is formatted in JSON • <code>pjson</code> : response is formatted in readable JSON
irwinId	Required Description: The irwinId of the target incident to update Format: <ul style="list-style-type: none"> • Type: string • Pattern: GUID (#####-####-####-####-#####)

	<p>Example: irwinId=417a6c1e-602f-433d-93ae-b415f23c0457</p>
pooResponsibleUnit	<p>Optional Description: A string representing the NWCG unit identifier for the agency responsible for fire protection at the point of origin. Format:</p> <ul style="list-style-type: none"> Type: string Pattern: SSUUUU <p>Example: pooResponsibleUnit=CABDF</p>
localIncidentIdentifier	<p>Optional Description: A code uniquely identifying the incident for the local fire management organization. Format:</p> <ul style="list-style-type: none"> Type: string[6,10] (prefix with 0's to meet minimum) Pattern: 00DK1E <p>Example: localIncidentIdentifier=00DK1E</p>
dispatchCenterId	<p>Optional Description: A identifier of the dispatch center responsible for supporting the incident Format:</p> <ul style="list-style-type: none"> Type: string[0,6] Pattern: SSUUUU <p>Example: dispatchCenterId =CARRCC</p>
incidentName	<p>Optional Description: The name assigned to an incident. Format:</p> <ul style="list-style-type: none"> Type: string <p>Example: incidentName=Rim Fire</p>
fireCause	<p>Optional Description: A broad classification of the incident Format:</p> <ul style="list-style-type: none"> Type: string Domain: [Natural, Human, Undetermined] <p>Example: fireCause = Human</p>
incidentTypeKind	<p>Optional Description: A code representing the kind of incident Format:</p> <ul style="list-style-type: none"> Type: string Domain: [FI] <p>Example: incidentTypeKind = FI</p>
incidentTypeCategory	<p>Optional Description: A subset of incidentTypeKind, whose code represents a more specific incident category. <i>NOTE: currently Irwin handles the FI type and its corresponding categories.</i> Format:</p> <ul style="list-style-type: none"> Type: string Domain: [DF, FA, RX, SF, VF, WF, WU] Example: incidentTypeCategory = RX

initialLatitude	<p>Optional Description: the latitude, in Decimal Degrees, of the incident's initial reported point Format: <ul style="list-style-type: none"> Type: number Pattern: DD.DDDDD Example: initialLatitude = 43.325178</p>
initialLongitude	<p>Optional Description: the longitude, in Decimal Degrees, of the incident's initial reported point Format: <ul style="list-style-type: none"> Type: number Pattern: DDD.DDDDD Example: initialLongitude = -96.459961</p>
discoveryAcres	<p>Optional Description: The estimated acreage of the incident upon discovery. Format: <ul style="list-style-type: none"> Type: number Pattern: NN.N Example: discoveryAcres = 12.5</p>
pooLatitude	<p>Optional Description: the latitude, in Decimal Degrees, of the incident's ignition point of origin. Format: <ul style="list-style-type: none"> Type: number Pattern: DD.DDDDD Example: pooLatitude = 43.325178</p>
pooLongitude	<p>Optional Description: the longitude, in Decimal Degrees, of the incident's ignition point of origin. Format: <ul style="list-style-type: none"> Type: number Pattern: DDD.DDDDD Example: pooLongitude = -96.459961</p>
pooOwnerUnit	<p>Optional Description: The NWCG unit identifier of the agency owning the land at the incident's point of origin Format: <ul style="list-style-type: none"> Type: string Pattern: SSUUUU Example: pooOwnerUnit = CABDF</p>
pooLandownerKind	<p>Optional Description: The classification of land owner at the incident's point of origin. Format: <ul style="list-style-type: none"> Type: string Domain: [Federal, Other, Private] Example: pooLandownerKind = Federal</p>
pooLandownerCategory	Optional

	<p>Description: A subset of <code>pooLandownerKind</code>, whose code represents a more specific landowner category.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: <code>string</code> • Domain: <code>[BIA, BLM, BOR, DOD, DOE, NPS, USFS, USFWS, Foreign, Tribal, City, County, State, Private]</code> <p>Example: <code>pooLandownerCategory = DOE</code></p>
<code>initialResponseAcres</code>	<p>Optional</p> <p>Description: The estimated area, in acres, burning at the time of initial response.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: <code>number[0.1,]</code> • Pattern: <code>NN.N</code> <p>Example: <code>initialResponseAcres = 13.1</code></p>
<code>initialFireStrategy</code>	<p>Optional</p> <p>Description: The fire strategy initially used</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: <code>string</code> • Domain: <code>[Full Suppression, Point Zone Protection, Confine, Monitor]</code> <p>Example: <code>initialFireStrategy = Full Suppression</code></p>
<code>firecodeRequested</code>	<p>Optional</p> <p>Description: If true, includes the incident in a list for the FireCode system to generate a FireCode. Default is false</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: <code>string</code> • Domain: <code>[true, false]</code> <p>Example: <code>getFireCode = true</code></p>
<code>fireCode</code>	<p>Optional</p> <p>Description: the alphanumeric code used to track costs for incident suppression expenditures</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: <code>string[4]</code> • Pattern: <code>CCCC</code> <p>Example: <code>fireCode = K1B4</code></p>
<code>fsJobCode</code>	<p>Optional</p> <p>Description: The code used to indicate the Forest Service job code for the incident.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: <code>string[2]</code> • Pattern: <code>CC</code> <p>Example: <code>fsJobCode = A5</code></p>
<code>fsOverrideCode</code>	<p>Optional</p> <p>Description: The code used to indicate the Forest Service override code for the incident.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: <code>string[4]</code> • Pattern: <code>NNNN</code> <p>Example: <code>fsOverrideCode = 1502</code></p>

isFSAssisted	<p>Optional Description: Indicates if the Forest Service assisted on the incident for which the responsible unit is not the Forest Service. Format</p> <ul style="list-style-type: none"> Type: string Domain: [true, false] <p>Example: isFSAssisted = 1</p>
isComplex	<p>Optional Description: Indicates if the incident has been designated a Complex. Format</p> <ul style="list-style-type: none"> Type: string Domain: [true, false] <p>Example: isComplex = 1</p>
complexParentIrwinId	<p>Optional Description: The IRWIN ID of the complex which this incident is a member of. Special Case: Setting the value to all zeros (00000000-0000-0000-0000-000000000000) indicates the incident is no longer within the complex and IRWIN will null the value. Format</p> <ul style="list-style-type: none"> Type: string Pattern: GUID (#####-####-####-####-#####) <p>Example: complexIrwinParentId = 6D378196-28E4-4E8C-A7DA-6707151C6F1B</p>
isMultiJurisdictional	<p>Optional Description: Indicates if the incident covers multiple jurisdictions Format</p> <ul style="list-style-type: none"> Type: string Domain: [true, false] <p>Example: isMultiJurisdictional = true</p>
isTrespass	<p>Optional Description: Indicates if the incident is a trespass claim or a bill will be issued. This results from a person or legal entity's negligent action causing damage to Forest Service property. Format</p> <ul style="list-style-type: none"> Type: string Domain: [true, false] <p>Example: isTrespass = true</p>
isReimbursable	<p>Optional Description: Indicates if the incident's fire code may be utilized by other agencies. Format</p> <ul style="list-style-type: none"> Type: string Domain: [true, false] <p>Example: isReimbursable = true</p>
isSeverity	<p>Optional Description: Indicates the fire code has been issues in anticipation of support needed Format:</p> <ul style="list-style-type: none"> Type: string

	<ul style="list-style-type: none"> • Domain: [true, false] <p>Example: isSeverity = true</p>
dailyAcres	<p>Optional</p> <p>Description: A measure of acres reported within the daily fire perimeter of a fire.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: number[0.1,] • Pattern: NN.N <p>Example: dailyAcres = 25.1</p>
calculatedAcres	<p>Optional</p> <p>Description: A measure of acres calculated (i.e. infrared) within the fire perimeter of a fire.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: number[0.1,] • Pattern: NN.N <p>Example: calculatedAcres = 25.1</p>
totalIncidentPersonnel	<p>Optional</p> <p>Description: the total number of personnel assigned to the incident</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: number • Pattern: NN <p>Example: totalIncidentPersonnel = 152</p>
fireMgmtComplexity	<p>Optional</p> <p>Description: The highest management level utilized to manage a wildland fire event. Format:</p> <ul style="list-style-type: none"> • Type: string • Domain: [Type 1 Incident, Type 2 Incident, Type 3 Incident, Type 4 Incident, Type 5 Incident, Type 1 Prescribed Fire, Type 2 Prescribed Fire, Type 3 Prescribed Fire] <p>Example: fireMgmtComplexity = Type 5 Incident</p>
incidentCommanderName	<p>Optional</p> <p>Description: The first (optional) and last name of the incident commander currently assigned to the incident</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: string[100] • Pattern: John Doe <p>Example: incidentCommanderName = John Doe</p>
incidentManagementOrganization	<p>Optional</p> <p>Description: The incident management organization for the incident</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: string • Domain: [Type 1 Team, Type 2 Team, Type 3 Team, Type 3 IC, Type 4 IC, Type 5 IC, NIMO, Unified] <p>Example: incidentManagementOrganization = NIMO</p>
fatalities	<p>Optional</p> <p>Description: The total number of deaths of personnel assigned to an incident. Format:</p> <ul style="list-style-type: none"> • Type: number

	<ul style="list-style-type: none"> • Pattern: NN <p>Example: fatalities = 0</p>
injuries	<p>Optional</p> <p>Description: The total number of reportable occupational injuries and illnesses that occurred in conjunction with an incident.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: number • Pattern: NN <p>Example: injuries = 0</p>
residencesDestroyed	<p>Optional</p> <p>Description: The total number of residences destroyed, or damaged to an extent requiring rebuilding, as a result of a fire.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: number • Pattern: NN <p>Example: residencesDestroyed = 0</p>
residencesThreatened	<p>Optional</p> <p>Description: The total number of residences threatened by the fire.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: number • Pattern: NN <p>Example: residencesThreatened = 0</p>
otherStructuresDestroyed	<p>Optional</p> <p>Description: The total number of structures, other than residences, destroyed as a result of a fire.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: number • Pattern: NN <p>Example: otherStructuresDestroyed = 0</p>
otherStructuresThreatened	<p>Optional</p> <p>Description: The total number of structures, other than residences, threatened by a fire.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: number • Pattern: NN <p>Example: otherStructuresThreatened = 0</p>
estimatedCostToDate	<p>Optional</p> <p>Description: Estimated total incident costs to date for the entire incident based on currently available information</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: number • Pattern: NNN.NN <p>Example: estimatedCostToDate = 354365.83</p>
estimatedContainmentDate	<p>Optional</p> <p>Description: The estimated date time in UTC a wildfire will be contained.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: string • Pattern: yyyy-mm-ddThh:mm:ssZ <p>Example: estimatedContainmentDate = 2011-06-18T:00:00:00Z</p>

percentContained	<p>Optional Description: Indicates the percent of incident area that is no longer active. Format:</p> <ul style="list-style-type: none"> Type: number Pattern: DD.DD <p>Example: percentContained = 65.00</p>
percentPerimeterToBeContained	<p>Optional Description: Indicates the percent of perimeter left to be completed. Format:</p> <ul style="list-style-type: none"> Type: number Pattern: DD.DD <p>Example: percentPerimeterToBeContained = 65.00</p>
ics209ReportDateTime	<p>Optional Description: The date and time in UTC that the ICS-209 report is prepared (created). Format:</p> <ul style="list-style-type: none"> Type: string Pattern: yyyy-mm-ddThh:mm:ssZ <p>Example: ics209ReportDateTime = 2011-06-18T:00:00:00Z</p>
ics209ReportStatus	<p>Optional Description: The version of the 209 report. Format:</p> <ul style="list-style-type: none"> Type: string[1] Domain: [I (initial), U (update), F (final)] <p>Example: ics209ReportStatus = U</p>
containmentDateTime	<p>Optional Description: The date and time in UTC a wildfire was declared contained. Format:</p> <ul style="list-style-type: none"> Type: string Pattern: yyyy-mm-ddThh:mm:ssZ <p>Example: containmentDateTime = 2011-06-18T:00:00:00Z</p>
controlDateTime	<p>Optional Description: The date and time in UTC a wildfire was declared under control. Format:</p> <ul style="list-style-type: none"> Type: string Pattern: yyyy-mm-ddThh:mm:ssZ <p>Example: controlDateTime = 2011-06-18T:00:00:00Z</p>
fireOutDateTime	<p>Optional Description: The date and time when a fire is declared "out". Format:</p> <ul style="list-style-type: none"> Type: string Pattern: yyyy-mm-ddThh:mm:ssZ <p>Example: fireOutDateTime = 2011-06-18T:00:00:00Z</p>
finalAcres	<p>Optional Description: The area measurement, in acres, defined by the final perimeter of a fire. Format:</p>

	<ul style="list-style-type: none"> • Type: number • Pattern: DD.DD <p>Example: finalAcres = 1358.42</p>
inConflict	<p>Optional</p> <p>Description: Indicates whether the incident is in conflict with another incident via the Conflict rules. Default is false</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: string • Domain: [true, false] <p>Example: inConflict=false</p>
conflictParentIrwinID	<p>Optional</p> <p>Description: The IrwinID of the authoritative Parent of this incident, if deemed to be inConflict. Default is false</p> <p>Special Case: Setting the value to all zeros (00000000-0000-0000-0000-000000000000) indicates the incident is no longer in conflict and IRWIN will null the value.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: string • Pattern: GUID (#####-####-####-####-#####) <p>Example: conflictParentIrwinID = 52fde2d3-8a7f-4cfd-8528-a042967e9fd3</p>
isActive	<p>Optional</p> <p>Description: Indicates if the incident is valid within IRWIN and actively receiving updates. Inactive incidents are a result of duplicate or invalid entries. This value is set to true on SubmitIncident as no system should ever knowingly submit an incident which may be categorized as inactive. Updating isActive to false indicates the incident is no longer valid. Default is true.</p> <p>Format</p> <ul style="list-style-type: none"> • Type: string • Domain: [true, false] <p>Example: isActive=false</p>
adsPermissionState	<p>Optional</p> <p>Description: Indicates the ADS hierarchy configuration on the incident. Updating this value alters the ADS configuration for the incident, essentially allowing another system to take precedence as the incident state evolves over time. Default is DEFAULT.</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: string • Domain: [DEFAULT, ICS209] <p>Example: adsPermissionState=ICS209</p>
Resources	<p>Optional</p> <p>Description: An array of JSON objects, where each object defines a RESOURCE assigned to the incident. FireResourceProvider and</p>

	<p>FireResourcePersonnelQuantity are not required. If resource records of the same FireResourceStatus exist, they are deleted before the new records are inserted. See <i>DATA ELEMENT DICTIONARY</i> for RESOURCE details</p> <p>Format:</p> <ul style="list-style-type: none"> • Type: Array of Objects • Pattern: [{k0 : v0, k1 : v1, k2 : v2},...] <p>Example:</p> <pre>[{ FireResourceStatus: "Initial Response", FireResourceAgency: "State", FireResourceProvider: "AKDAS", FireResourceKind: "Equipment", FireResourceCategory: "Engine", FireResourceType: "Engine, Type 3", FireResourceQuantity: "2", FireResourcePersonnelQuantity: "6", FireResourceQuantityCurrentAsOf: "2014-08-14T06:00:00Z" }, ...]</pre>
--	--

7.5.3 EXAMPLE USAGE

Example 1: Simple UpdateIncident

GET URL	https://irwint.doi.gov/ArcGIS/.../irwin/UpdateIncident?
POST	irwinId=6D378196-28E4-4E8C-A7DA-6707151C6F1B&
PARAMETERS	firecodeRequested=true& dailyAcres=

7.5.4 JSON RESPONSE SYNTAX

<pre>{ "success": true, "irwinId": <irwinID of updated incident>, "skippedElements": {} }</pre>

7.5.5 JSON RESPONSE EXAMPLE

<pre>{ "success": true, "irwinId": "417a6c1e-602f-433d-93ae-b415f23c0457", "skippedElements": {} }</pre>
--

7.5.6 JSON RESPONSE EXAMPLE : SKIPPED ELEMENTS

<pre>{ "success": true, "irwinId": "417a6c1e-602f-433d-93ae-b415f23c0457", "skippedElements": { "DispatchCenterID": "Read-Only", } }</pre>
--

```
} "IncidentName": "WildCAD"  
}
```

7.6 GET CONFLICTS

URL:	<a href="https://<base-url>/arcgis/rest/services/Irwin/MapServer/exts/Irwin/GetConflicts">https://<base-url>/arcgis/rest/services/Irwin/MapServer/exts/Irwin/GetConflicts
Authorized Roles:	IRWINCAD, IRWINREADWRITE
Version Introduced:	20140317.4

7.6.1 DESCRIPTION

This operation accepts **either** an individual IrwinID **or** an incident’s point of origin geospatial, temporal definition and dispatchCenter (pooLatitude, pooLongitude, fireDiscoveryDateTime, dispatchCenterId), performing Conflict Detection validation utilizing the parameters included, and returning any conflicting IrwinIDs.

This method should be leveraged to pre-validate a potential new incident before submit, or looking up the current conflicts of a submitted IrwinID.

Systems submitting a new incident are expected to call GetConflicts and evaluate prior to SubmitIncident. This helps ensure duplicate incidents are not inserted and shared with all participating systems.

GetConflict works on the following business rules:

- **Temporal Check:** Other “active” incidents whose fireDiscoveryDateTime is within 6 hours of the new/updated incident.

AND

- **Spatial Check:** Other “active” incidents whose geographic point defined by pooLongitude, pooLatitude is within 0.5 miles of the incident.

AND

- **Dispatch Center Check:** Other “active” incidents from different dispatch centers as defined by the dispatchCenterID of the incident.

7.6.2 REQUEST PARAMETERS

Parameter	Details
token	Authentication token as returned from Generate Token
f	<p>The response format.</p> <p>Default returns HTML.</p> <ul style="list-style-type: none"> html : response is formatted in HTML json : response is formatted in JSON pjson : response is formatted in readable JSON
irwinID	<p>Required for role(s): na</p> <p>Description: A single IrwinID to check for conflicts.</p> <p>Format</p> <ul style="list-style-type: none"> Type: string Pattern: GUID (#####-####-####-####-#####) <p>Example: irwinId = 6D378196-28E4-4E8C-A7DA-6707151C6F1B</p>
fireDiscoveryDateTime	<p>Required for role(s): na</p> <p>Description: A string representing the UTC date and time of the incident's discovery.</p> <p>Format:</p> <ul style="list-style-type: none"> Type:string Pattern: yyyy-mm-ddThh:mm:ssZ <p>Example: fireDiscoveryDateTime = 2013-03-10T14:23:00Z</p>
dispatchCenterId	<p>Required for role(s): na</p> <p>Description: A identifier of the dispatch center responsible for supporting the incident</p> <p>Format:</p> <p>Type: string[0, 6]</p> <p>Pattern: SSUUUU</p> <ul style="list-style-type: none"> Example: dispatchCenterId =CARRCC
pooLatitude	<p>Required for role(s): na</p> <p>Description: the latitude, in Decimal Degrees, of the incident's ignition point of origin.</p> <p>Format:</p> <ul style="list-style-type: none"> Type: number Pattern: DD.DDDDD <p>Example: pooLatitude = 43.325178</p>
pooLongitude	<p>Required for role(s): na</p> <p>Description: the longitude, in Decimal Degrees, of the incident's ignition point of origin.</p> <p>Format:</p> <ul style="list-style-type: none"> Type: number Pattern: DDD.DDDDD <p>Example: pooLongitude = -96.459961</p>

7.6.3 EXAMPLE USAGE

Example 1: Simple Get Conflicts (with IrwinID)

```
GET URL      https://irwint.doi.gov/ArcGIS/.../irwin/getConflicts?
GET          irwinId=6D378196-28E4-4E8C-A7DA-6707151C6F1B
PARAMETERS
```

Example 2: Simple Get Conflicts (with lat / long / time)

```
GET URL      https://irwint.doi.gov/ArcGIS/.../irwin/ getConflicts?
GET          fireDiscoveryDateTime = 2013-10-29T10:30:00Z&
PARAMETERS   pooLongitude = -96.459961&
              pooLatitude = 43.325178
```

7.6.4 JSON RESPONSE SYNTAX

```
{
  "conflicts" : ["<conflicting_irwinid0>","<conflicting_irwinid1>","..."]
}
```

7.6.5 JSON RESPONSE EXAMPLE

```
{
  "conflicts": [
    "6D378196-28E4-4E8C-A7DA-6707151C6F1B",
    "1BAC52F2-3379-4112-A2C8-50CC1987C730"
  ]
}
```

8 AUTHORITATIVE DATA SOURCES

The following tables represent the Authoritative Data Source (ADS) permission matrixes allowed by IRWIN, defining which system has precedence to edit an incident’s data elements. In order for a particular system to update a specific data element, that system must have equal or higher precedence than the last system to update the element. IRWIN tracks all changes which occur to an incident, facilitating this. The ADS exists to maintain data integrity as multiple systems begin to share information about a particular incident.

There are 2 separate matrixes: DEFAULT and ICS209. When an incident is created in IRWIN via `SubmitIncident`, the incident’s matrix is set to “DEFAULT”. In this configuration, the incident is primarily managed by a CAD system, thus CAD systems have the highest priority on almost every data element. As an incident evolves, its management may require changing this hierarchy to allow the ICS209 system priority. In this scenario the CAD system “passes” ADS priority to ICS209 via calling `UpdateIncident` and setting its `adsPermissionState` to “ICS209” (see *UPDATE INCIDENT* for details). This action transfers higher precedence on select elements to ICS209, allowing that system the ability to update fields it could not before. The CAD system may re-acquire precedence by adjusting the `adsPermissionState` back to DEFAULT.

8.1 LEGEND

Color	Indicates data element is mapped to the system through Discovery Process.
R in cell	Indicates READ access for element. Read-only is applied on both <code>SubmitIncident</code> and <code>UpdateIncident</code>
1,2,3,4 in cell	Indicates the priority that the system has for updating the data element. IRWIN uses this value to evaluate the ADS when a Partner System uses the <code>UpdateIncident</code> web method. A system can only update an existing data element if their ADS value is a lower number (they are of higher priority) than the last system that either created or updated that element. A value implies create and update privileges for that system.
Req column	Field is required to create a record in IRWIN.
Cad Req column	Fields required from a CAD system to create a record in IRWIN. A superset of Req.

8.2 DEFAULT PERMISSION MATRIX

CAD Req	Req	IRWIN Table ID	IRWIN Data Element	CAD IFM	CAD Wildcad	ICS209	WFDSS	Fire Code	EGP
		INCIDENT	IrwinID	R	R	R	R	R	R
		INCIDENT	UniqueFireIdentifier	R	R	R	R	R	R
x	x	INCIDENT	FireDiscoveryDateTime	1	1	2	3	4	R
x	x	INCIDENT	POOResponsibleUnit	1	1	2	3	4	R
x	x	INCIDENT	LocalIncidentIdentifier	1	1	2	3	4	R
x		INCIDENT	DispatchCenterID	1	1	R	R	R	R
x	x	INCIDENT	IncidentName	1	1	2	3	4	R
x		INCIDENT	FireCause	1	1	2	3	R	R
x	x	INCIDENT	IncidentTypeKind	1	1	2	3	4	R
x	x	INCIDENT	IncidentTypeCategory	1	1	2	3	4	R
x		INCIDENT	InitialLatitude	1	1	R	R	R	R
x		INCIDENT	InitialLongitude	1	1	R	R	R	R
x		INCIDENT	DiscoveryAcres	1	1	R	3	R	R
x	x	INCIDENT	POOLatitude	1	1	2	3	4	R
x	x	INCIDENT	POOLongitude	1	1	2	3	4	R
		INCIDENT	Shape	R	R	R	R	R	R
		INCIDENT	GACC	R	R	R	R	R	R
		INCIDENT	POOOwnerUnit	1	R	3	2	R	R
		INCIDENT	POOState	R	R	R	R	R	R
		INCIDENT	POOCounty	R	R	R	R	R	R
		INCIDENT	POOLandownerKind	1	R	3	2	4	R
		INCIDENT	POOLandownerCategory	1	R	R	2	4	R
		INCIDENT	InitialResponseAcres	1	1	R	R	R	R
		INCIDENT	InitialFireStrategy	1	1	2	R	R	R
x	x	INCIDENT	FirecodeRequested	1	1	R	R	1	R
		INCIDENT	FireCode	1	1	R	R	1	R
		INCIDENT	FSJobCode	R	1	R	R	R	R
		INCIDENT	FSOverrideCode	R	1	R	R	R	R
		INCIDENT	IsComplex	1	1	1	R	1	R
		INCIDENT	ComplexParentIrwinID	1	1	1	R	1	R
		INCIDENT	IsFSAssisted	1	1	R	R	1	R
		INCIDENT	IsMultiJurisdictional	R	1	R	R	1	R
		INCIDENT	IsTrespass	R	1	R	R	1	R
		INCIDENT	IsReimbursable	1	1	R	R	1	R
		INCIDENT	IsSeverity	R	1	R	R	4	R
		INCIDENT	DailyAcres	2	1	2	3	R	R
		INCIDENT	CalculatedAcres	R	R	R	3	R	R
		INCIDENT	TotalIncidentPersonnel	2	R	2	R	R	R
		INCIDENT	FireMgmtComplexity	2	R	2	R	R	R
		INCIDENT	IncidentCommanderName	2	1	2	R	R	R
		INCIDENT	IncidentManagementOrganization	R	R	2	R	R	R
		INCIDENT	Fatalities	R	R	2	R	R	R
		INCIDENT	Injuries	R	R	2	R	R	R
		INCIDENT	ResidencesDestroyed	2	R	2	R	R	R

CAD Req	Req	IRWIN Table ID	IRWIN Data Element	CAD IFM	CAD Wildcad	ICS209	WFDSS	Fire Code	EGP
		INCIDENT	ResidencesThreatened	2	R	2	R	R	R
		INCIDENT	OtherStructuresDestroyed	2	R	2	R	R	R
		INCIDENT	OtherStructuresThreatened	2	R	2	R	R	R
		INCIDENT	EstimatedCostToDate	R	R	2	R	R	R
		INCIDENT	EstimatedContainmentDate	R	R	2	R	R	R
		INCIDENT	PercentContained	R	R	2	R	R	R
		INCIDENT	PercentPerimeterToBeContained	R	R	2	R	R	R
		INCIDENT	ICS209ReportDateTime	R	R	2	R	R	R
		INCIDENT	ICS209ReportStatus	R	R	2	R	R	R
		INCIDENT	ContainmentDateTime	1	1	3	2	R	R
		INCIDENT	ControlDateTime	1	1	3	2	R	R
		INCIDENT	FireOutDateTime	1	1	R	3	R	R
		INCIDENT	FinalAcres	1	1	2	R	R	R
		INCIDENT	InConflict	1	1	R	R	R	R
		INCIDENT	ConflictParentIrwinID	1	1	R	R	R	R
		INCIDENT	IsActive	1	1	2	3	4	R
		INCIDENT	ADSPermissionState	1	1	R	R	R	R
		INCIDENT	RecordSource	R	R	R	R	R	R
		INCIDENT	CreatedBySystem	R	R	R	R	R	R
		INCIDENT	CreatedOnDateTime	R	R	R	R	R	R
		INCIDENT	MofifiedBySystem	R	R	R	R	R	R
		INCIDENT	ModifiedOnDateTime	R	R	R	R	R	R
		INCIDENT	OBJECTID	R	R	R	R	R	R

8.3 ICS209 PERMISSION MATRIX

CAD Req	Req	IRWIN Table ID	IRWIN Data Element	CAD IFM	CAD Wildcad	ICS209	WFDSS	Fire Code	EGP
		INCIDENT	IrwinID	R	R	R	R	R	R
		INCIDENT	UniqueFireIdentifier	R	R	R	R	R	R
x	x	INCIDENT	FireDiscoveryDateTime	1	1	2	3	4	R
x	x	INCIDENT	POOResponsibleUnit	1	1	2	3	4	R
x	x	INCIDENT	LocalIncidentIdentifier	1	1	2	3	4	R
x		INCIDENT	DispatchCenterID	1	1	R	R	R	R
x	x	INCIDENT	IncidentName	1	1	2	3	4	R
x		INCIDENT	FireCause	1	1	2	3	R	R
x	x	INCIDENT	IncidentTypeKind	1	1	2	3	4	R
x	x	INCIDENT	IncidentTypeCategory	1	1	2	3	4	R
x		INCIDENT	InitialLatitude	1	1	R	R	R	R
x		INCIDENT	InitialLongitude	1	1	R	R	R	R
x		INCIDENT	DiscoveryAcres	1	1	R	3	R	R
x	x	INCIDENT	POOLatitude	1	1	2	3	4	R
x	x	INCIDENT	POOLongitude	1	1	2	3	4	R
		INCIDENT	Shape	R	R	R	R	R	R
		INCIDENT	GACC	R	R	R	R	R	R
		INCIDENT	POOOwnerUnit	1	R	2	3	R	R
		INCIDENT	POOState	R	R	R	R	R	R
		INCIDENT	POOCounty	R	R	R	R	R	R
		INCIDENT	POOLandownerKind	1	R	2	3	4	R
		INCIDENT	POOLandownerCategory	1	R	R	3	4	R
		INCIDENT	InitialResponseAcres	1	1	R	R	R	R
		INCIDENT	InitialFireStrategy	1	1	2	R	R	R
x	x	INCIDENT	FirecodeRequested	1	1	R	R	1	R
		INCIDENT	FireCode	1	1	R	R	1	R
		INCIDENT	FSJobCode	R	1	R	R	R	R
		INCIDENT	FSoverrideCode	R	1	R	R	R	R
		INCIDENT	IsComplex	1	1	1	R	1	R
		INCIDENT	ComplexParentIrwinID	1	1	1	R	1	R
		INCIDENT	IsFSAssisted	1	1	R	R	1	R
		INCIDENT	IsMultiJurisdictional	R	1	R	R	1	R
		INCIDENT	IsTrespass	R	1	R	R	1	R
		INCIDENT	IsReimbursable	1	1	R	R	1	R
		INCIDENT	IsSeverity	R	1	R	R	4	R
		INCIDENT	DailyAcres	1	2	1	3	R	R
		INCIDENT	CalculatedAcres	R	R	R	3	R	R
		INCIDENT	TotalIncidentPersonnel	1	R	1	R	R	R
		INCIDENT	FireMgmtComplexity	1	R	1	R	R	R
		INCIDENT	IncidentCommanderName	1	2	1	R	R	R
		INCIDENT	IncidentManagementOrganization	R	R	2	R	R	R
		INCIDENT	Fatalities	R	R	2	R	R	R

CAD Req	Req	IRWIN Table ID	IRWIN Data Element	CAD IFM	CAD Wildcad	ICS209	WFDSS	Fire Code	EGP
		INCIDENT	Injuries	R	R	2	R	R	R
		INCIDENT	ResidencesDestroyed	1	R	1	R	R	R
		INCIDENT	ResidencesThreatened	1	R	1	R	R	R
		INCIDENT	OtherStructuresDestroyed	1	R	1	R	R	R
		INCIDENT	OtherStructuresThreatened	1	R	1	R	R	R
		INCIDENT	EstimatedCostToDate	R	R	2	R	R	R
		INCIDENT	EstimatedContainmentDate	R	R	2	R	R	R
		INCIDENT	PercentContained	R	R	2	R	R	R
		INCIDENT	PercentPerimeterToBeContained	R	R	2	R	R	R
		INCIDENT	ICS209ReportDateTime	R	R	2	R	R	R
		INCIDENT	ICS209ReportStatus	R	R	2	R	R	R
		INCIDENT	ContainmentDateTime	1	1	3	2	R	R
		INCIDENT	ControlDateTime	1	1	3	2	R	R
		INCIDENT	FireOutDateTime	1	1	R	3	R	R
		INCIDENT	FinalAcres	1	1	2	R	R	R
		INCIDENT	InConflict	1	1	R	R	R	R
		INCIDENT	ConflictParentIrwinID	1	1	R	R	R	R
		INCIDENT	IsActive	1	1	2	3	4	R
		INCIDENT	ADSPermissionState	1	1	R	R	R	R
		INCIDENT	RecordSource	R	R	R	R	R	R
		INCIDENT	CreatedBySystem	R	R	R	R	R	R
		INCIDENT	CreatedOnDateTime	R	R	R	R	R	R
		INCIDENT	MofifiedBySystem	R	R	R	R	R	R
		INCIDENT	ModifiedOnDateTime	R	R	R	R	R	R
		INCIDENT	OBJECTID	R	R	R	R	R	R

9 DATA ELEMENT DICTIONARY

CAD Req	Req	IRWIN Table ID	IRWIN Data Element	API Data Type	Format/LOV Example	Short Description	Source System Submit/Update Requirements	IRWIN Validation	IRWIN Validation Failure Possible Errors	NWCG Data Element Name	NWCG Data Standard Link	NWCG Data Standard Status
		INCIDENT	IrwinID	GUID		Unique identifier assigned to each incident record in IRWIN.	Assigned by IRWIN when Incident is created. Required for update.	Must be not null on Update.	Error: Required Field Missing Submit: NA Update: Record rejected	N/A	N/A	N/A
		INCIDENT	UniqueFireIdentifier	String(22)	yyyy-SSUUUU-xxxxxx, 2007-IDBOF-000025	Unique identifier assigned to each wildland fire. yyyy = calendar year, SSUUUU = POO responsible unit identifier (5 or 6 characters), xxxxxx = local incident identifier (6 to 10 characters)	Derived by IRWIN when Incident is created and updated by IRWIN when any of the components are updated.	NA	NA	Unique Fire Identifier	http://www.nwcg.gov/pms/stds/standards/unique-fire-identifier_v1-0.htm	Approved
x	x	INCIDENT	FireDiscoveryDateTime	DATE/TIME	YYYY-MM-DDThh:mm:ssZ	The date and time a fire was reported as discovered or confirmed to exist. May also be the start date for reporting purposes.	Must be submitted in UTC to match format specified. Example: 2012-03-10T01:24:08Z.	Must be not null on Submit. Must be valid date/time format. Must be a valid date/time: Date must be <= today's date AND Date >= today's date minus 60 days on SUBMIT; Date must be <= today's date on UPDATE	Error: Required Field Missing Error: Invalid Date/Time Format Error: Invalid Date/Time Submit: Record rejected Update: Record rejected	Fire Discovery Date & Time	http://www.nwcg.gov/pms/stds/standards/fire-discovery_v1-0.htm	Approved (date/time revision submitted)
x	x	INCIDENT	POOResponsibleUnit	String(6)	SSUUUU	NWCG Unit Identifier data standard to identify the agency with primary fire protection responsibility at the point of origin of a fire.	Reference NWCG Unit Identifiers for valid values.	Must be not null on submit. Maximum Length 6. Minimum Length 5. SS must be valid 2-letter state code.	Error: Required Field Missing Error: Data Element Length Error: Invalid State Code Submit: Record rejected Update: Record rejected	Point of Origin Responsible Agency Unit Identifier	http://www.nwcg.gov/pms/stds/standards/point-of-origin-responsible-agency_v1-0.htm	Approved
x	x	INCIDENT	LocalIncidentIdentifier	String(10)	000087, 00DK1E	A number or code that uniquely identifies an incident for a particular local fire management organization within a particular calendar year.	Minimum length 6. Maximum length 10. Pad with leading zeros to fulfill the 6-character minimum length.	Must be not null on Submit. Must meet min/max length requirement.	Error: Required Field Missing Error: Data Element Length Submit: Record rejected Update: Record rejected	LocalIncidentIdentifier	http://www.nwcg.gov/pms/stds/standards/local-incident-identifier_v1-0.htm#definition	Approved
x		INCIDENT	DispatchCenterID	String(6)	SSUUUU	A unique identifier for a dispatch center responsible for supporting the incident.	Reference NWCG Unit Identifiers for valid values.	Must be not null on Submit by a CAD. Maximum Length 6. Minimum Length 5. SS must be valid 2-letter state code.	Error: Required Field Missing Submit: Record rejected Update: Record rejected	NONE		NONE (request submitted)

CAD Req	Req	IRWIN Table ID	IRWIN Data Element	API Data Type	Format/LOV Example	Short Description	Source System Submit/Update Requirements	IRWIN Validation	IRWIN Validation Failure Possible Errors	NWCG Data Element Name	NWCG Data Standard Link	NWCG Data Standard Status
x	x	INCIDENT	IncidentName	String(50)		The name assigned to an incident.	NONE	Must be not null on Submit.	Error: Required Field Missing Submit: Record rejected Update: Record rejected	Incident Name	http://www.nwcg.gov/pms/stds/standards/incident-name_v1-0.htm	Approved
x		INCIDENT	FireCause	String(15)	Natural, Human, Undetermined	Broad classification of the reason the fire occurred identified as human, natural or undetermined.	Valid values are Natural, Human, Undetermined.	Must be not null on Submit. Must match a valid value.	Error: Required Field Missing Error: Not a Valid Value Submit: Record rejected Update: Record rejected	Fire Cause Kind & Category	Standard has been drafted and should be ready for NWCG review and approval in January, 2013.	Assigned
x	x	INCIDENT	IncidentTypeKind	String(2)	FI = Fire	A general, high-level code and description of the types of incidents and planned events to which the interagency wildland fire community responds.	Valid value is FI. NOTE: IRWIN will only accept FI - fire incidents in year 1.	Must be not null on Submit. Must match a valid value.	Error: Required Field Missing Error: Not a Valid Value Submit: Record rejected Update: Record rejected	Event Kind & Category	http://www.nwcg.gov/pms/stds/standards/event-kind-category_v1-0.htm#fi	Approved
x	x	INCIDENT	IncidentTypeCategory	String(2)	If Kind = FI then Cat = WF, ST, VF, etc...	The Event Category is a sub-group of the Event Kind code and description. The Event Category further breaks down the Event Kind into more specific event categories.	Valid values on Submit are DF, RX, SF, VF, WF, WU. Valid values on Update are DF, FA, RX, SF, VF, WF, WU. NOTE: IRWIN will only accept a subset of the NWCG "FI" types in Year 1. Also, the NWCG standard will be modified to include FA - False Alarm.	Must be not null on Submit. Must match a valid value.	Error: Required Field Missing Error: Not a Valid Value Submit: Record rejected Update: Record rejected	Event Kind & Category	http://www.nwcg.gov/pms/stds/standards/event-kind-category_v1-0.htm#fi	Approved (needs update request)
x		INCIDENT	InitialLatitude	Numeric	DD.DDDDD	The latitude location of the initial reported point of origin specified in decimal degrees.	Submit to IRWIN in DATUM NAD 83	Must be not null on Submit by CAD. Must be a valid latitude. Must be a valid lat/long combination.	Error: Required CAD Field Missing Error: Invalid Latitude Error: Invalid Lat/Long Submit: Record rejected Update: Record rejected	NONE		NONE (request submitted)
x		INCIDENT	InitialLongitude	Numeric	"-DDD.DDDDD"	The longitude location of the initial reported point of origin specified in decimal degrees.	Submit to IRWIN in DATUM NAD 83	Must be not null on Submit by CAD. Must be a valid longitude. Must be a valid lat/long combination.	Error: Required CAD Field Missing Error: Invalid Longitude Error: Invalid Lat/Long Submit: Record rejected Update: Record rejected	NONE		NONE (request submitted)

CAD Req	Req	IRWIN Table ID	IRWIN Data Element	API Data Type	Format/LOV Example	Short Description	Source System Submit/Update Requirements	IRWIN Validation	IRWIN Validation Failure Possible Errors	NWCG Data Element Name	NWCG Data Standard Link	NWCG Data Standard Status
x		INCIDENT	DiscoveryAcres	numeric	9(9).9	An estimate of acres burning upon the discovery of the fire. More specifically when the fire is first reported by the first person that calls in the fire. The estimate should include number of acres within the current perimeter of a specific, individual incident, including unburned and unburnable islands.	As a minimum, fires less than one acre will be reported to the tenth of an acre. As a minimum, fires greater than one acre will at least be reported to the nearest acre (i.e. first digit to the right of the decimal point for fires > 1 acre).	Must be not null on Submit by CAD. Must be >= 0.	Error: Required CAD Field Missing Error: Acres must be > = 0 Submit: CAD - Record rejected Submit: not CAD - Value not inserted Update: Value not updated	NONE	-	NONE (request submitted)
x	x	INCIDENT	POOLatitude	Numeric	DD.DDDDD	The latitude location of the point of origin specified in decimal degrees. Point of origin is the location where a competent ignition source came into contact with the material first ignited and sustained combustion occurred.	Submit to IRWIN in DATUM NAD 83	Must be not null on Submit. Must be a valid latitude. Must be a valid lat/long combination.	Error: Required Field Missing Error: Invalid Latitude Error: Invalid Lat/Long Submit: Record rejected Update: Record rejected	Point of Origin Latitude	http://www.nwcg.gov/pms/stds/standards/point-of-origin-latitude_v1-0.htm	Approved
x	x	INCIDENT	POOLongitude	Numeric	"-DDD.DDDDD"	The longitude location of the point of origin specified in decimal degrees. Point of origin is the location where a competent ignition source came into contact with the material first ignited and sustained combustion occurred.	Submit to IRWIN in DATUM NAD 83	Must be not null on Submit. Must be a valid longitude. Must be a valid lat/long combination.	Error: Required Field Missing Error: Invalid Longitude Error: Invalid Lat/Long Submit: Record rejected Update: Record rejected	Point of Origin Longitude	http://www.nwcg.gov/pms/stds/standards/point-of-origin-longitude_v1-0.htm#definition	Approved
		INCIDENT	Shape	Shape		Geographic representation of POO in NAD83 datum.	IRWIN will generate this value based on POO Latitude/Longitude values.	NA	NA	NONE		NONE (needs request)
		INCIDENT	GACC	String(50)	Northern Rockies	A code that identifies one of the wildland fire geographic area coordination centers. A geographic area coordination center is a facility that is used for the coordination of agency or jurisdictional resources in support of one or more incidents within a geographic coordination area.	IRWIN will derive this value by geospatial lookup based on POO Latitude/Longitude. NOTE: In Year 1, IRWIN uses a String(50) as the GACC name is derived from the National_GACC_20131 205 featureclass. This will be changed to conform with the NWCG specification in a future IRWIN release.	NA	NA	Geographic Area Coordination Center (GACC) Code & Name	http://www.nwcg.gov/pms/stds/standards/geographic-area-coordination-center_v1-0.htm#definition	Approved

CAD Req	Req	IRWIN Table ID	IRWIN Data Element	API Data Type	Format/LOV Example	Short Description	Source System Submit/Update Requirements	IRWIN Validation	IRWIN Validation Failure Possible Errors	NWCG Data Element Name	NWCG Data Standard Link	NWCG Data Standard Status
		INCIDENT	POOOwnerUnit	String(6)	SSUUUU	NWCG Unit Identifier data standard to identify the agency who owns the land at the point of origin of a fire.	Reference NWCG Unit Identifiers for valid values.	Maximum Length 6. Minimum Length 5. SS must be valid 2-letter state code.	Error: Data Element Length Error: Invalid State Code Submit: Record rejected Update: No validation Submit: Record rejected Update: Record rejected	None	-	NONE (request submitted)
		INCIDENT	POOState	String(6)	FIPS Country-State Alpha Code US-WA	The Country-State Code identifying the state or equivalent entity at point of origin.	IRWIN will derive this value by geospatial lookup based on POO Latitude/Longitude.	NA	NA	Point of Origin State Code	http://www.nwcg.gov/pms/stds/standards/point-of-origin-state_v1-0.htm#definition	Approved (revision request on NWCG to apply INCITS 31-2009)
		INCIDENT	POOCounty	String(100)	FIPSCounty Alpha Name Fresno	The County Name identifying the county or equivalent entity at point of origin designated at the time of collection.	IRWIN will derive this value by geospatial lookup based on POO Latitude/Longitude.	NA	NA	Point of Origin County Code	http://www.nwcg.gov/pms/stds/standards/point-of-origin-county-code_v1-0.htm#definition	Approved (revision request on NWCG to apply INCITS 31-2009)
		INCIDENT	POOLandownerKind	String(7)	Federal, Other, Private	Broad classification of land ownership at the point of origin.	Reference NWCG Standard for valid values (Federal, Other, Private).	Must match a valid value.	Error: Not a Valid Value Submit: Record rejected Update: Record rejected	Point of Origin Land Owner Kind & Category	http://www.nwcg.gov/pms/stds/standards/point-of-origin-land-owner_v1-0.htm	Approved
		INCIDENT	POOLandownerCategory	String(7)	If Kind = Federal, Cat = BIA, BLM, BOR, etc...	More specific classification of land ownership within land owner kinds identifying the owner at the point of origin at the time of the incident. Owner in the context of this data element refers to the agency or entity having the land management responsibility at the point of origin.	Reference NWCG Standard for valid values.	Must match a valid value based on NWCG standard.	Error: Not a Valid Value Submit: Record rejected Update: Record rejected	Point of Origin Land Owner Kind & Category	http://www.nwcg.gov/pms/stds/standards/point-of-origin-land-owner_v1-0.htm	Approved
		INCIDENT	InitialResponseAcres	numeric	9(9).9	An estimate of acres burning at the time of initial response. More specifically when the IC arrives and performs initial size up. The minimum size must be 0.1. The estimate should include number of acres within the current perimeter of a specific, individual incident, including unburned and unburnable islands.	As a minimum, fires less than one acre will be reported to the tenth of an acre . As a minimum, fires greater than one acre will at least be reported to the nearest acre (i.e. first digit to the right of the decimal point for fires > 1 acre).	Must be >= 0.1 on Submit. Must be >= 0.0 on Update.	Error: Acres must be >= 0.1 for Submit. Error: Acres must be >= 0.0 for Update. Submit: Record rejected Update: Record rejected	NONE	-	NONE (request submitted)

CAD Req	Req	IRWIN Table ID	IRWIN Data Element	API Data Type	Format/LOV Example	Short Description	Source System Submit/Update Requirements	IRWIN Validation	IRWIN Validation Failure Possible Errors	NWCG Data Element Name	NWCG Data Standard Link	NWCG Data Standard Status
		INCIDENT	InitialFireStrategy	String(50)	Full Suppression, Point Zone Protection, Confine, Monitor	The fire strategy initially used on a wildland fire; the general plan or direction utilized until it succeeds or changes.	Valid values are Full Suppression, Point Zone Protection, Confine, Monitor	Must match valid value.	Error: Not a Valid Value Submit: Record rejected Update: Record rejected	Initial Fire Strategy Designator	http://www.nwcg.gov/pms/stds/standards/initial-fire-strategy_v1-0.htm#definition ; http://www.predictiveservices.nifc.gov/intelligence/intelligence.htm	Approved (revision submitted)
x	x	INCIDENT	FirecodeRequested	String(5)		When a source application sends the SubmitIncident or Update Incident request to IRWIN, FirecodeRequested is a Boolean value indicating whether a Fire Code needs to be generated from Fire Code for the incident. The combination of FirecodeRequested and the value in the FireCode column determines the validity of the current FireCode in the IRWIN incidents table - valid or pending (waiting for firecode)	Valid values are true or false. Valid combinations of FireCode and FirecodeRequested will be specified.	Must be not null on Submit or Update. Default on Submit is false. Valid values are true or false.	Error: Required Field Missing Error: Not a Valid Value Submit: Record rejected Update: Record rejected	NONE	-	NONE (needs request)
		INCIDENT	FireCode	Char(4)		A code used within the interagency wildland fire community to track and compile cost information for emergency fire suppression expenditures. Example: K14B	The combination of FirecodeRequested and the value in the FireCode column determines the validity of the current FireCode in the IRWIN incidents table - valid or pending (waiting for firecode)	NONE	NA	FireCode	http://www.nwcg.gov/pms/stds/standards/firecode_v1-0.htm	Approved
		INCIDENT	FSJobCode	Char(2)		A code use to indicate the Forest Service job accounting code for the incident. This is specific to the Forest Service. Usually displayed as 2 char prefix on FireCode.	NONE	NONE	NA	NONE	-	NONE (request submitted)
		INCIDENT	FSOverrideCode	Char(4)	1502	A code used to indicate the Forest Service override code for the incident. This is specific to the Forest Service. Usually displayed as a 4 char suffix to the fire code. For example, if the FS is assisting DOI, an override of 1502 will be used.	NONE	NONE	NA	NONE	-	NONE (request submitted)

CAD Req	Req	IRWIN Table ID	IRWIN Data Element	API Data Type	Format/LOV Example	Short Description	Source System Submit/Update Requirements	IRWIN Validation	IRWIN Validation Failure Possible Errors	NWCG Data Element Name	NWCG Data Standard Link	NWCG Data Standard Status
		INCIDENT	IsComplex	String(5)		Indicates that this incident has been designated as a complex (an existing incident was promoted to complex status, or a new record was created for a complex)	Valid values are Null, true, false. IsComplex and ComplexIRWINParentID must form a valid combination. To set this incident as a complex, IsComplex must be True and ComplexIRWINParentID must be NULL. To set this incident as a participant in a complex, IsComplex must be false and ComplexIRWINParentID must be the IRWIN Identifier of the incident record representing the complex.	Must be Null, true or false. IsComplex and ComplexIRWINParentID must form a valid combination: TRUE/NULL - Is a Complex Participant in Complex of given IRWIN ID. FALSE/NULL - Is not a participant in a complex. NULL/NULL - is not a participant in a complex.	Error: Not a Valid Value Error: Not a valid combination with ComplexIRWINParentID Submit: Record rejected Update: Record rejected	NONE		NONE (needs request)
		INCIDENT	ComplexParentIrwinID	GUID		The IRWIN id of the complex to which this incident is a member.	IsComplex and ComplexIRWINParentID must form a valid combination. To set this incident as a complex, IsComplex must be True and ComplexIRWINParentID must be NULL. To set this incident as a participant in a complex, IsComplex must be false and ComplexIRWINParentID must be the IRWIN Identifier of the incident record representing the complex. Special Case: Setting the value to all zeros (00000000-0000-0000-0000-000000000000) indicates the incident is no longer within the complex and IRWIN will null the value.	Must be a valid IRWIN Identifier that is also designated as a complex. IsComplex and ComplexIRWINParentID must form a valid combination: TRUE/NULL - Is a Complex Participant in Complex of given IRWIN ID. FALSE/NULL - Is not a participant in a complex. NULL/NULL - is not a participant in a complex.	Error: Not a Valid Complex IRWIN Identifier Error: Not a valid combination with IsComplex Submit: Record rejected Update: Record rejected	NONE		NONE (needs request)
		INCIDENT	IsFSAssisted	String(5)		Indicates if the FS is assisting on an incident in which the responsible unit is not Forest Service	Valid values are Null, true, false	Must be Null, true or false.	Error: Not a Valid Value Submit: Record rejected Update: Record rejected	NONE		NONE (needs request)

CAD Req	Req	IRWIN Table ID	IRWIN Data Element	API Data Type	Format/LOV Example	Short Description	Source System Submit/Update Requirements	IRWIN Validation	IRWIN Validation Failure Possible Errors	NWCG Data Element Name	NWCG Data Standard Link	NWCG Data Standard Status
		INCIDENT	IsMultiJurisdictional	String(5)		Indicates if the incident covers multiple jurisdictions.	Valid values are Null, true, false	Must be Null, true or false.	Error: Not a Valid Value Submit: Record rejected Update: Record rejected	NONE		NONE (needs request)
		INCIDENT	IsTrespass	String(5)		Indicates if the fire is trespass or a bill will be issued. A tort or trespass claim for the Government results when a person or legal entity, acting negligently or otherwise wrongfully, causes damages to Forest Service resources or property.	Valid values are Null, true, false	Must be Null, true or false.	Error: Not a Valid Value Submit: Record rejected Update: Record rejected	NONE		NONE (needs request)
		INCIDENT	IsReimbursable	String(5)		Indicates the fire code can be utilized by other agencies through agreements.	Valid values are Null, true, false	Must be Null, true or false.	Error: Not a Valid Value Submit: Record rejected Update: Record rejected	NONE		NONE (needs request)
		INCIDENT	IsSeverity	String(5)		Indicates the fire code has been issued in anticipation of support needed.	Valid values are Null, false	Must be Null or false.	Error: Not a Valid Value Submit: Record rejected Update: Record rejected	NONE		NONE (needs request)
		INCIDENT	DailyAcres	numeric	9(9).9	A measure of acres reported within the daily fire perimeter of a fire. More specifically, the number of acres within the current perimeter of a specific, individual incident, including unburned and unburnable islands. The minimum size must be 0.1.	As a minimum, fires less than one acre will be reported to the tenth of an acre . As a minimum, fires greater than one acre will at least be reported to the nearest acre (i.e. first digit to the right of the decimal point for fires > 1 acre).	Must be >= 0.1	Error: Acres must be >= 0.1 Submit: Record rejected Update: Record rejected	NONE		NONE (request submitted)

CAD Req	Req	IRWIN Table ID	IRWIN Data Element	API Data Type	Format/LOV Example	Short Description	Source System Submit/Update Requirements	IRWIN Validation	IRWIN Validation Failure Possible Errors	NWCG Data Element Name	NWCG Data Standard Link	NWCG Data Standard Status
		INCIDENT	CalculatedAcres	numeric	9(9).9	A measure of acres calculated (i.e. infrared) within the fire perimeter of a fire. More specifically, the number of acres within the current perimeter of a specific, individual incident, including unburned and unburnable islands. The minimum size must be 0.1.	Submit calculated acres if the acre value was obtained by calculating the area using a technical means. As a minimum, fires less than one acre will be reported to the tenth of an acre. As a minimum, fires greater than one acre will at least be reported to the nearest acre (i.e. first digit to the right of the decimal point for fires > 1 acre).	Must be >= 0.1.	Error: Acres must be >= 0.1 Submit: Record rejected Update: Record rejected	NONE	-	NONE (needs request)
		INCIDENT	TotalIncidentPersonnel	Integer		The total number of personnel assigned. Includes overhead, crewmembers, helicopter crewmember, engine crewmembers, camp crew people, etc.	NONE	Must be > 0.	Error: Quantity must be > 0 Submit: Record rejected Update: Record rejected	NONE	-	NONE (request submitted)
		INCIDENT	FireMgmtComplexity	string(25)	Type 1 Incident, Type 2 Incident, Type 3 Incident, Type 4, etc...	The highest management level utilized to manage a wildland fire event.	Reference NWCG standard for valid values.	Must match a valid value based on NWCG standard.	Error: Not a Valid Value Submit: Record rejected Update: Record rejected	Management Complexity Level Designator	http://www.nwcg.gov/pms/stds/standards/management-complexity-level_v1-0.htm	Approved
		INCIDENT	IncidentCommanderName	string(100)	John Doe	The first (optional) and last name of the incident commander currently assigned to the incident	NONE	NONE	NA	NONE	-	NONE (needs request)
		INCIDENT	IncidentManagementOrganization	string(255)	Type 1 Team, Type 2 Team, Type 3 IC, Area Command, NIMO, etc...	The incident management organization for the incident, which may be a Type 1, 2, or 3 Incident Management Team (IMT), a Unified Command, a Unified Command with an IMT, NIMO, etc. This field is null if no team is assigned.	Valid values are Type 1 Team, Type 2 Team, Type 3 Team, Type 3 IC, Type 4 IC, Type 5 IC, NIMO, Unified Command, SOPL	Must match a valid value	Error: Not a Valid Value Submit: Record rejected Update: Record rejected	NONE	-	NONE (needs request)
		INCIDENT	Fatalities	integer		The total number of deaths of personnel assigned to an incident.	NONE	Must be >= 0	Error: Value must be >= 0 Submit: Record rejected Update: Record rejected	Incident Personnel Fatality Quantity	http://www.nwcg.gov/pms/stds/standards/incident-personnel-fatalities_v1-0.htm	Approved
		INCIDENT	Injuries	integer		The total number of reportable occupational injuries and illnesses that occurred in conjunction with an incident.	NONE	Must be >= 0	Error: Value must be >= 0 Submit: Record rejected Update: Record rejected	Incident Personnel Injury & Illness Quantity	http://www.nwcg.gov/pms/stds/standards/incident-personnel-injuries-illnesses_v1-0.htm	Approved

CAD Req	Req	IRWIN Table ID	IRWIN Data Element	API Data Type	Format/LOV Example	Short Description	Source System Submit/Update Requirements	IRWIN Validation	IRWIN Validation Failure Possible Errors	NWCG Data Element Name	NWCG Data Standard Link	NWCG Data Standard Status
		INCIDENT	ResidencesDestroyed	integer		The total number of residences destroyed, or damaged to an extent requiring rebuilding, as a result of a fire.	NONE	Must be >= 0	Error: Value must be >= 0 Submit: Record rejected Update: Record rejected	Residences Destroyed Quantity	http://www.nwcg.gov/pms/stds/standards/residences-destroyed_v1-0.htm	Approved
		INCIDENT	ResidencesThreatened	integer		The total number of residences threatened by the fire.	NONE	Must be >= 0	Error: Value must be >= 0 Submit: Record rejected Update: Record rejected	Residences Threatened Quantity	http://www.nwcg.gov/pms/stds/standards/residences-threatened_v1-0.htm	Approved
		INCIDENT	OtherStructuresDestroyed	integer		The total number of structures, other than residences, destroyed as a result of a fire.	NONE	Must be >= 0	Error: Value must be >= 0 Submit: Record rejected Update: Record rejected	Other Structures Destroyed Quantity	http://www.nwcg.gov/pms/stds/standards/other-structures-destroyed_v1-0.htm	Approved
		INCIDENT	OtherStructuresThreatened	integer		The total number of structures, other than residences, threatened by a fire.	NONE	Must be >= 0	Error: Value must be >= 0 Submit: Record rejected Update: Record rejected	Other Structures Threatened Quantity	http://www.nwcg.gov/pms/stds/standards/other-structures-threatened_v1-0.htm	Approved
		INCIDENT	EstimatedCostToDate	Number		Estimated total incident costs to date for the entire incident based on currently available information. Costs include estimates for all costs for the response including management and support activities.	NONE	Must be >= 0	Error: Value must be >= 0 Submit: Record rejected Update: Record rejected	NONE		NONE (request submitted)
		INCIDENT	EstimatedContainmentDate	DATE	YYYY-MM-DD	The estimated date a wildfire will be contained.	Must be submitted in YYYY-MM-DD format.	Must be valid date format. Must be a valid date: Date is >= FireDiscoveryDateTime	Error: Invalid Date Format Error: Invalid Date Submit: Record rejected Update: Record rejected	NONE		NONE (request submitted)
		INCIDENT	PercentContained	Integer		Indicates the percent of incident area that is no longer active. <i>Reference definition in fire line handbook when developing standard.</i>	Provide as whole number representing the percentage contained such as 20 or 80.	Must be >= 0	Error: Value must be >= 0 Submit: Record rejected Update: Record rejected	NONE		NONE (request submitted)

CAD Req	Req	IRWIN Table ID	IRWIN Data Element	API Data Type	Format/LOV Example	Short Description	Source System Submit/Update Requirements	IRWIN Validation	IRWIN Validation Failure Possible Errors	NWCG Data Element Name	NWCG Data Standard Link	NWCG Data Standard Status
		INCIDENT	PercentPerimeterToBeContained	Integer		Indicates the percent of perimeter left to be completed. This entry is appropriate for full suppression, point/zone protection, and confine fires, or any combination of these strategies. This entry is not used for wildfires managed entirely under a monitor strategy.	Provide as whole number representing the percentage to be contained such as 20 or 80.	Must be >= 0	Error: Value must be >= 0 Submit: Record rejected Update: Record rejected	NONE		NONE (request submitted)
		INCIDENT	ICS209ReportDateTime	DATE/TIME	YYYY-MM-DDThh:mm:ssZ	The date and time of the latest approved ICS-209 report.	Must be submitted in UTC to match format specified. Example: 2012-03-10T01:24:08Z	Must be valid date/time format. Must be a valid date/time: Date is >= FireDiscoveryDateTime	Error: Invalid Date/Time Format Submit: Record rejected Update: Record rejected	NONE		NONE (needs request)
		INCIDENT	ICS209ReportStatus	string(1)	I (Initial), U (Update), F(Final)	The version of the 209 report (initial, update, or final). There should never be more than one initial report, but there can be numerous updates, and even multiple finals (as determined by business rules).	Valid values are I, U, F.	Must match a valid value	Error: Not a Valid Value Submit: Record rejected Update: Record rejected	NONE		NONE (needs request)
		INCIDENT	ContainmentDateTime	DATE/TIME	YYYY-MM-DDThh:mm:ssZ	The date and time a wildfire was declared contained.	Must be submitted in UTC to match format specified. Example: 2012-03-10T01:24:08Z	Must be valid date/time format. Must be a valid date/time: Date is >= FireDiscoveryDate AND year <= FireDiscoveryDate plus 1 year	Error: Invalid Date/Time Format Submit: Record rejected Update: Record rejected	Fire Containment Date & Time	http://www.nwcg.gov/pms/stds/standards/fire-containment_v1-0.htm	Approved (date/time revision submitted)
		INCIDENT	ControlDateTime	DATE/TIME	YYYY-MM-DDThh:mm:ssZ	The date and time a wildfire was declared under control.	Must be submitted in UTC to match format specified. Example: 2012-03-10T01:24:08Z	Must be valid date/time format. Must be a valid date/time: Date is >= FireDiscoveryDate AND year <= FireDiscoveryDate plus 1 year	Error: Invalid Date/Time Format Submit: Record rejected Update: Record rejected	Fire Control Date & Time	http://www.nwcg.gov/pms/stds/standards/fire-control_v1-0.htm	Approved (date/time revision submitted)
		INCIDENT	FireOutDateTime	DATE/TIME	YYYY-MM-DDThh:mm:ssZ	The date and time when a fire is declared "out".	Must be submitted in UTC to match format specified. Example: 2012-03-10T01:24:08Z	Must be valid date/time format. Must be a valid date/time: Date is >= FireDiscoveryDate AND year <= FireDiscoveryDate plus 2 year	Error: Invalid Date/Time Format Submit: Record rejected Update: Record rejected	Fire Out Date & Time	http://www.nwcg.gov/pms/stds/standards/fire-out_v1-0.htm	Approved (date/time revision submitted)

CAD Req	Req	IRWIN Table ID	IRWIN Data Element	API Data Type	Format/LOV Example	Short Description	Source System Submit/Update Requirements	IRWIN Validation	IRWIN Validation Failure Possible Errors	NWCG Data Element Name	NWCG Data Standard Link	NWCG Data Standard Status
		INCIDENT	FinalAcres	numeric	9(9).9	The measure of acres within the final perimeter of a fire. More specifically, the number of acres within the final fire perimeter of a specific, individual incident, including unburned and unburnable islands.	As a minimum, fires less than one acre will be reported to the tenth of an acre . As a minimum, fires greater than one acre will at least be reported to the nearest acre (i.e. first digit to the right of the decimal point for fires > 1 acre).	Must be >= 0.	Error: Acres must be >= 0 Submit: Record rejected Update: Record rejected	Final Fire Acre Quantity	http://www.nwcg.gov/pms/stds/standards/final-fire-acre-quantity_v1-0.htm	Approved
		INCIDENT	InConflict	String(5)		Indicates whether the CAD has flagged the incident as potentially in conflict with another IRWIN record (within 1/2 mile, 6 hrs, different dispatch center).	Valid values are true, false. Default is "false" on submit.	Must be true or false.	Error: Not a Valid Value Submit: Record rejected Update: Record rejected	NONE		NONE (needs request)
		INCIDENT	ConflictParentIrwinID	GUID		The IRWINID of an IRWIN record that conflicted with this record based on the conflict detection algorithm and set by the CAD. The ConflictParentIrwinID is the authoritative record of this incident.	This value is set by a CAD when an IRWIN incident record that is marked InConflict is determined to be a duplicate of another IRWIN incident record. Special Case: Setting the value to all zeros (00000000-0000-0000-0000-000000000000) indicates the incident is no longer in conflict and IRWIN will null the value.	Must be a valid GUID format Must a valid IrwinID Default is "Null" on submit. If not null, IsActive must be "false" and InConflict must be "false".	Error: Not a Valid Value Submit: Record rejected Update: Record rejected	NONE		NONE (needs request)
		INCIDENT	IsActive	String(5)		Indicates whether the incident is active within IRWIN. Active Incidents are Wildfire Incident records from the Center having primary responsibility for that fire. Inactive incidents are a result of duplicates or invalid entries.	Valid values are true, false. Default and only value on Submit is "true". Only records with IsActive = true can be updated.	Valid values are true, false. Must be true on Submit. Only records with IsActive = true can be updated. IsActive must be "false" if IncidentTypeCategory is "FA" or "RX".	Must be true or false. Default on submit is "true". Must be "true" on submit.	NONE		NONE (needs request)
		INCIDENT	ADSPermissionState	String(100)	DEFAULT, ICS209	Indicates the permission hierarchy that is currently being applied when a system utilizes the UpdateIncident operation.	Valid values are DEFAULT, ICS209. The default value when an incident record is submitted is "DEFAULT". CAD's are the only systems that can update this value.	Must match a valid value.	Error: Not a Valid Value Submit: N/A - IRWIN always sets value to "DEFAULT" in submit. Update: Value not updated	NONE		NONE (needs request)
		INCIDENT	RecordSource	String(255)		ArcGIS Server Username of system that created the IRWIN Incident record.	NONE	NONE	NONE	NONE		NONE (needs request)

CAD Req	Req	IRWIN Table ID	IRWIN Data Element	API Data Type	Format/LOV Example	Short Description	Source System Submit/Update Requirements	IRWIN Validation	IRWIN Validation Failure Possible Errors	NWCG Data Element Name	NWCG Data Standard Link	NWCG Data Standard Status
		INCIDENT	CreatedBySystem	DATE/TIME		ArcGIS Server Username of system that created the IRWIN Incident record.	NONE	NONE	NONE	NONE		NONE (needs request)
		INCIDENT	CreatedOnDateTime	DATE/TIME		Date/time that the IRWIN Incident record was created.	NONE	NONE	NONE	NONE		NONE (needs request)
		INCIDENT	ModifiedBySystem	String(255)		ArcGIS Server Username of system that last modified the IRWIN Incident record.	NONE	NONE	NONE	NONE		NONE (needs request)
		INCIDENT	ModifiedOnDateTime	DATE/TIME		Date/time that the IRWIN Incident record was last modified.	NONE	NONE	NONE	NONE		NONE (needs request)
		INCIDENT	OBJECTID	Long Integer		Geodatabase table field ID that is read-only and managed by the geodatabase.	NONE	NONE	NONE	NA		NA
		RESOURCE	IrwinID	GUID		IrwinID of the Incident to which the resource record is linked.	Assigned by IRWIN when Incident is created. Required for update.	Must be not null on Update.	Error: Required Field Missing Submit: NA Update: Record rejected	N/A	N/A	N/A
		RESOURCE	FireResourceAgency	String(7)	BLM, USFS, BIA	A general classification of the agency providing fire resources to an incident - top level hierarchy of resources.	Required to submit resource information. Valid values are BIA, BLM, BOR, DOD, DOE, NPS, USFS, USFWS, State, Private, Foreign, Tribal, City, County.	Must be not null if InitialResponseResourceQuantity is not null OR DailyResourceQuantity is not null. Must match a valid value.	Error: Required Resource Field Missing Error: Not a Valid Value Submit: Resource record not inserted Update: Resource record not inserted	NONE		NONE (request submitted)
		RESOURCE	FireResourceProvider	String(6)	SSUUUU	The NWCG Unit Identifier data standard to identify the agency that is providing the resource.	Reference NWCG Unit Identifiers for valid values.	Maximum Length 6. Minimum Length 5. SS must be valid 2-letter state code.	Error: Data Element Length Error: Invalid State Code Submit: Resource record not inserted Update: Resource record not inserted	NONE		NONE (request submitted)
		RESOURCE	FireResourceKind	String(10)	Aircraft, Crews, Equipment, Overhead	A general classification of operational resources available to respond to a fire.	Required to submit resource information. Reference NWCG standard for valid values.	Must be not null if InitialResponseResourceQuantity or DailyResourceQuantity is not null. Must match a valid value based on NWCG standard.	Error: Required Resource Field Missing Error: Not a Valid Value Submit: Resource record not inserted Update: Resource record not inserted	Fire Resource Kind, Category & Type	http://www.nwcg.gov/pms/stds/standards/fire-resource_v1-0.htm	Approved
		RESOURCE	FireResourceCategory	String(25)	Kind = Aircraft, Cat = Airtanker, Fixed Wing, etc...	An intermediate classification of operational resources available to respond to a fire - a further breakdown of kind.	Required to submit resource information. Reference NWCG standard for valid values.	Must be not null if InitialResponseResourceQuantity or DailyResourceQuantity is not null. Must match a valid value based on NWCG standard.	Error: Required Resource Field Missing Error: Not a Valid Value Submit: Resource record not inserted Update: Resource record not inserted	Fire Resource Kind, Category & Type	http://www.nwcg.gov/pms/stds/standards/fire-resource_v1-0.htm	Approved

CAD Req	Req	IRWIN Table ID	IRWIN Data Element	API Data Type	Format/LOV Example	Short Description	Source System Submit/Update Requirements	IRWIN Validation	IRWIN Validation Failure Possible Errors	NWCG Data Element Name	NWCG Data Standard Link	NWCG Data Standard Status
		RESOURCE	FireResourceType	String(60)	Kind = Aircraft, Cat = Airtanker, Type = Heavy (Type 1), etc...	An intermediate classification of operational resources available to respond to a fire - a further breakdown of kind.	Required to submit resource information. Reference NWCG standard for valid values.	Must be not null if InitialResponseResourceQuantity or DailyResourceQuantity is not null. Must match a valid value based on NWCG standard.	Error: Required Resource Field Missing Error: Not a Valid Value Submit: Resource record not inserted Update: Resource record not inserted	Fire Resource Kind, Category & Type	http://www.nwcg.gov/pms/stds/standards/fire-resource_v1-0.htm	Approved
		RESOURCE	FireResourceQuantity (FireResourceStatus = "Initial Response")	Integer		The total number of fire resources (by agency, provider, kind, category, and type) used during initial response.	Reference the NWCG standard for business rules associated with reporting resource quantities. Only one set of Initial Response Resource records will be associated with an incident. Use the UpdateIncident operation to replace the currently reported initial response resources if they need updated because of an error when submitting the incident. Previous records sent will be deleted.	Must be >= 0.	Error: Resource quantity must be > 0 Submit: Resource record not inserted Update: Resource record not inserted	Initial Response Resource Quantity	http://www.nwcg.gov/pms/stds/standards/initial-response-resource-qty_v1-0.htm	Approved
		RESOURCE	FireResourcePersonnelQuantity (FireResourceStatus = "Daily")	Integer		The total number of personnel assigned to the fire resource being reported (by agency, provider, kind, category, and type).	Use the UpdateIncident operation to add daily resource personnel quantities as reported. Previous records sent will be deleted.	Must be >= 0.	Error: Resource quantity must be > 0 Submit: Resource record not inserted Update: Resource record not inserted			
		RESOURCE	FireResourceQuantity (FireResourceStatus = "Daily")	Integer		The total number of fire resources (by agency, provider, kind, category, and type) currently being utilized by the incident.	Use the UpdateIncident operation to add daily resource quantities as reported. Previous records sent will be deleted.	Must be >= 0.	Error: Resource quantity must be > 0 Submit: Resource record not inserted Update: Resource record not inserted	NONE	-	NONE (request submitted)
		RESOURCE	ResourceQuantityCurrentAsOf	DATE/TIME		The date and time that reflects the period for which the resource counts are current.	Must be submitted in UTC to match format specified. Example: 2012-03-10T01:24:08Z.	Must be not null if DailyResourceQuantity is not null. Must be valid date/time format. Must be a valid date/time: Date is >=FireDiscoveryDateTime	Error: Required Field Missing Error: Invalid Date/Time Format Error: Invalid Date/Time Submit: Resource record not inserted Update: Resource record not inserted	NONE	-	NONE (needs request)
		RESOURCE	FireResourceStatus	String(16)		Indicates if the resource record being submitted or updated is an initial response resource or daily resource record.	Valid values are "Initial Response" or "Daily"	Must match a valid value.	Error: Not a Valid Value	None		NONE (needs request)

CAD Req	Req	IRWIN Table ID	IRWIN Data Element	API Data Type	Format/LOV Example	Short Description	Source System Submit/Update Requirements	IRWIN Validation	IRWIN Validation Failure Possible Errors	NWCG Data Element Name	NWCG Data Standard Link	NWCG Data Standard Status
		RESOURCE	RecordSource	String(255)		ArcGIS Server Username of system that created the IRWIN Resource record.	NONE	NONE	NONE	NONE		NONE (needs request)
		RESOURCE	CreatedBySystem	DATE/TIME		ArcGIS Server Username of system that created the IRWIN Resource record.	NONE	NONE	NONE	NONE		NONE (needs request)
		RESOURCE	CreatedOnDateTime (Incident)	DATE/TIME		Date/time that the IRWIN Resource record was created.	NONE	NONE	NONE	NONE		NONE (needs request)
		RESOURCE	OBJECTID	Long Integer		Geodatabase table field ID that is read-only and managed by the geodatabase.	NONE	NONE	NONE	NA		NA