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Idaho Transportation Department (ITD) – Aeronautics App Suite: Airfield Inspection Survey and Dashboard User Guide

Prepared for:

ITD

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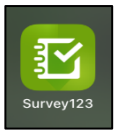
1.0 Introduction

The Department of Agriculture requires that ITD log information about every herbicide application job along state roadways, rest areas, and yards. This application suite provides a modernized mobile workflow that empowers the applicators to record the required information in the field. Once entered the information is used to generate spatial data that can be displayed in a map as well as queried and exported to meet reporting needs.

2.0 Airfield Inspection Survey

Survey123 for ArcGIS is a simple and intuitive form-centric data gathering solution that makes creating, sharing, and analyzing surveys easy. This User Guide will focus on the workflow completed within the Survey123 app.

2.1 Download and Install

a. Open the Apple App Store if on an iOS device or the Google Play Store if on an Android device
b. Search for Survey123 for ArcGIS in the App Store or Google Play 

c. Download Survey123 for ArcGIS to the device

2.2 Configure and Login

d. Open Survey123 for ArcGIS on the device
e. Hit Manage ArcGIS Connections on the home screen. This will open the interface below. Hit add connection at the bottom of the screen.

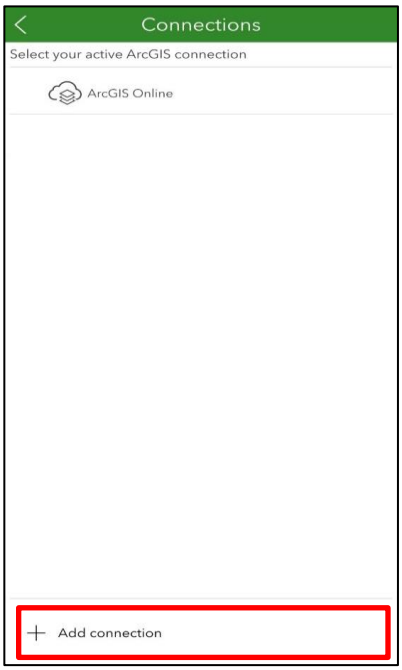


Figure 1(a): Add Connection

f. In the ArcGIS connection URL box enter: https://gisp.itd.idaho.gov/portal and hit Add. Leave the use external browser for sign in toggled off.

Figure 1(b): Add ITD Portal Connection

g. Hit the back button at the top of the screen, this will take you back to the home screen. On the home screen hit Sign in with ITD ArcGIS Enterprise and select ITD Employees

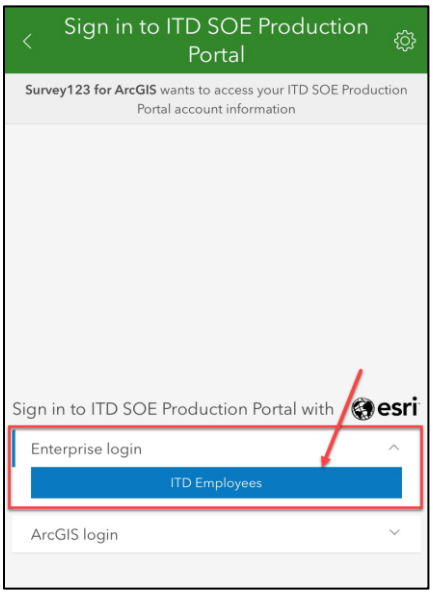


Figure 2(a): Enterprise Login

h. Enter your ITD username and password and click on Sign in.

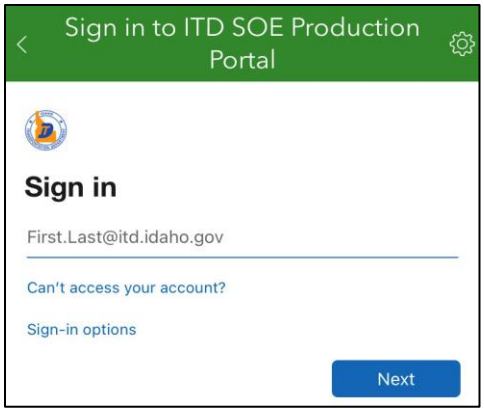


Figure 2(b): ITD Portal Login

2.3 Downloading Surveys

a. On the main page click on Download Surveys.

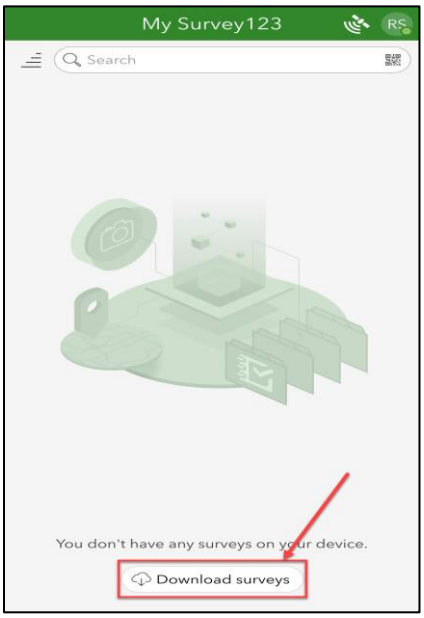


Figure 3(a): Download Surveys

b. The download page will open, search for ITD Airfield Inspection Survey and hit the cloud icon to download.

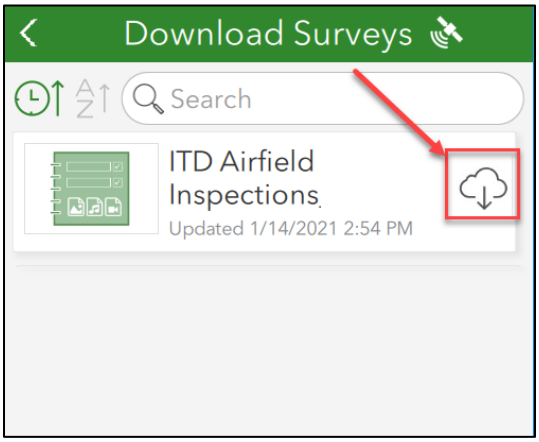


Figure 3(b): Download ITD Weed Control Survey

c. Once the survey has downloaded hit the back arrow in the top left corner. The survey will now appear on the main page.

2.4 How to use Surveys

Once the ITD Airfield Inspection survey has been downloaded, it will be stored locally on your device in the "My Surveys" section of the Survey123 app.

a. To begin using the survey, first click on the ITD Airfield Inspections icon.

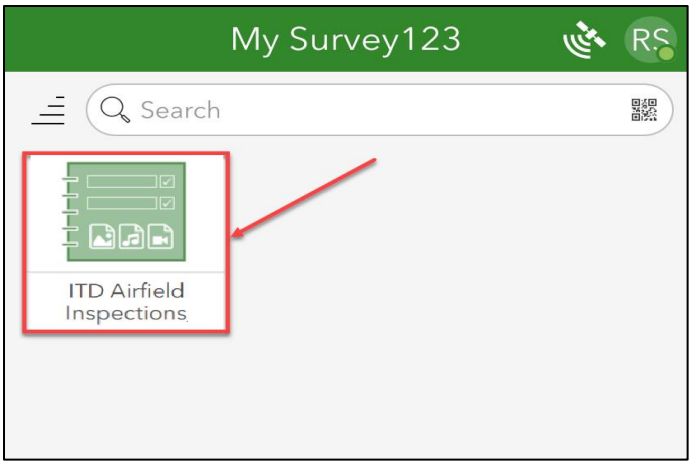


Figure 4: My Surveys

b. Once on the ITD Airfield Inspections survey home screen, select the "Collect" button to open the survey

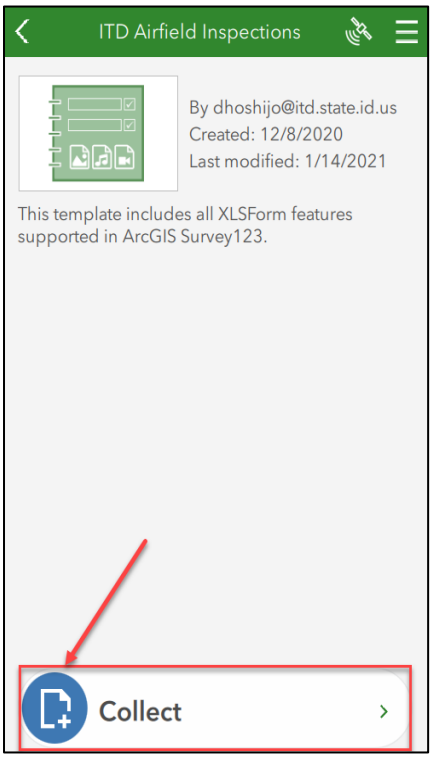


Figure 5: Collect data in Survey

c. Begin the survey by selecting an Airfield from Airfield Name drop down and some fields (Airfield City, FAA Identifier) are pre populated based on selected Airfield.

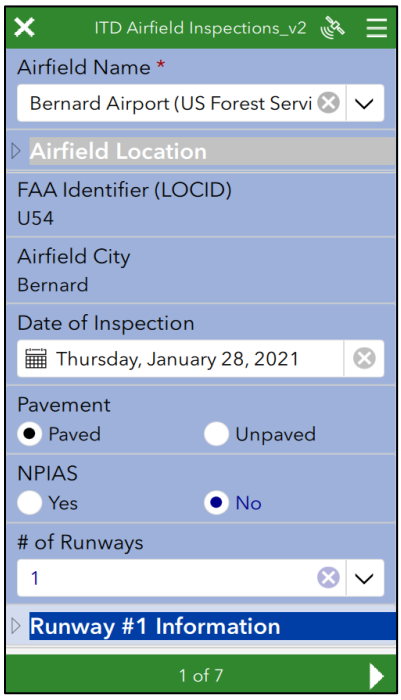


Figure 6(a): Survey Form

d. Click on the arrow at the bottom of the survey page to view the next page of the survey and fill data in the required fields (marked with *) for all the pages of the survey

e. Click on the check mark at the bottom of the screen to submit the data entered in the survey form. The following options are displayed:
   - Send now: Submit the survey immediately
   - Continue the Survey: Return to the survey to keep entering information
   - Save in Outbox: Save the survey data as a draft and it can be accessed on the survey home page under Outbox. This option can be used if user is in Offline mode and needs to save the entered survey information. Survey can be submitted from the Outbox once the user is connected to internet again.

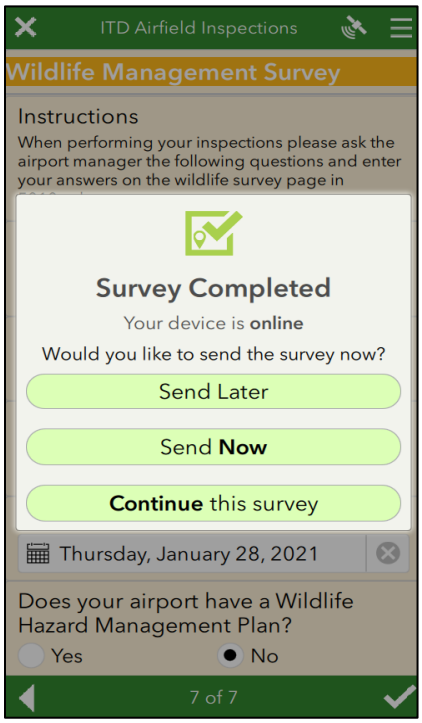


Figure 7: Submit Survey Data

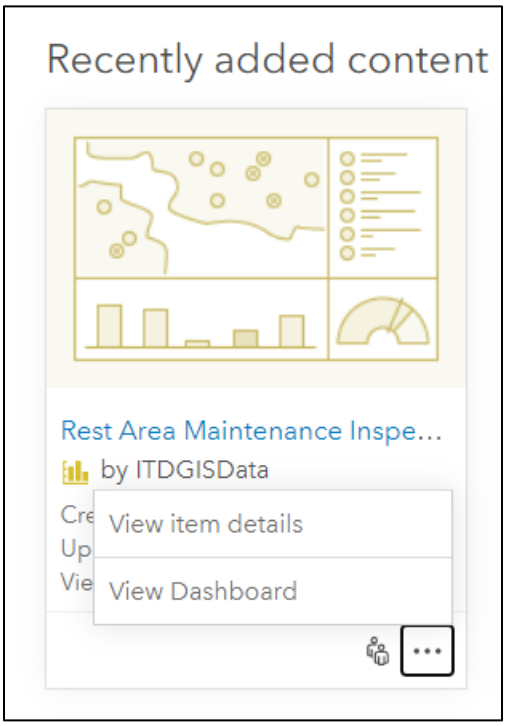
3.0 Airfield Inspection Viewer

3.1 Access the Dashboard

In order to access the Airfield Inspections Viewer, click on the following URL:

https://gisp.itd.idaho.gov/portal/apps/opsdashboard/index.html#/878897e5077148e2a096fede42cc61fd

- Click "**Sign In**"
- Under "**Enterprise login**", select the "**ITD Employees**" option and sign in to the added portal using ITD credentials.
- Once you are signed in, click on "**Groups**" in the top banner
- Navigate to the **Aeronautics** and open the **Airfield Inspections Viewer** by clicking on View Dashboard.



3.2 Using the Dashboard

The Airfield Inspection Viewer application allows personnel to review and update information regarding each airfield visit and inspection.

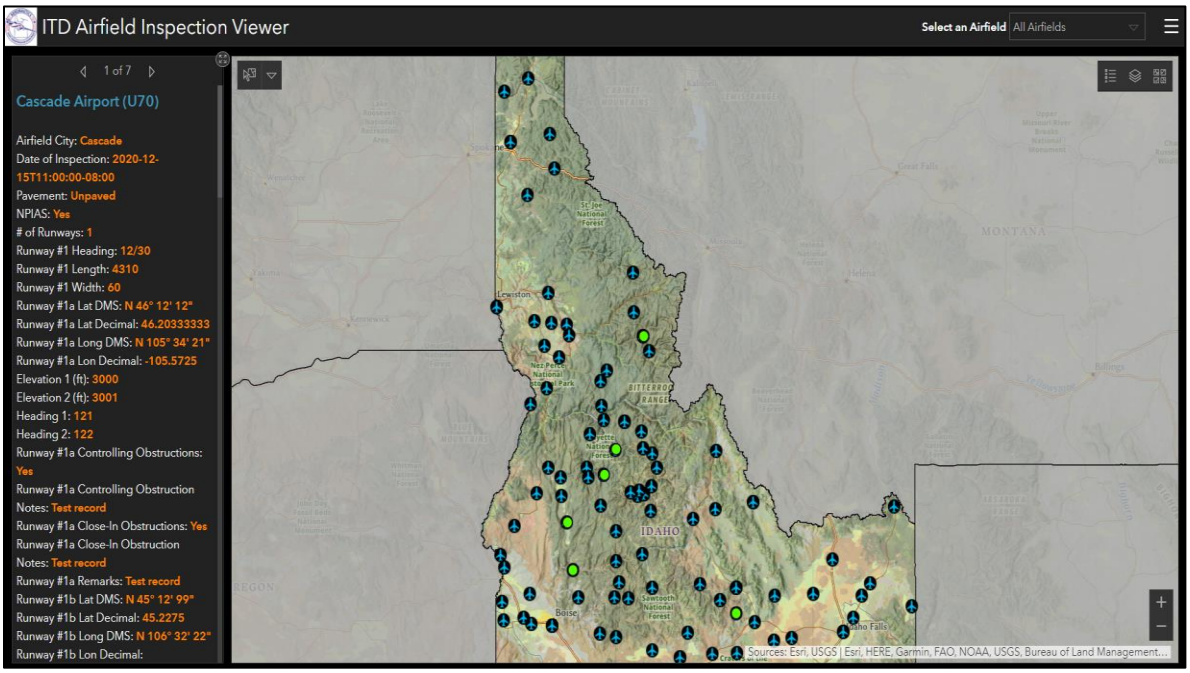


Figure 8: Airfield Inspection Viewer (Default View)

The Airfield Inspection Viewer includes the following nine widgets:

Map Element Widgets		Header Widgets	
	Zoom widget		Legend widget
	Home widget		Layer List widget
	Basemap Gallery widget		

3.2.1 Widget Overview

3.2.1.1 Zoom Slider widget

The **Zoom Slider widget** provides interactive zoom controls in the map display.

Use the Zoom Slider widget

Click the zoom slider button to zoom in or out on the map. User can also double click in an area to zoom in to the map.

Figure 9(a): Zoom Widget

3.2.1.2 Home Button

The **Home Button widget** zooms the map to the initial map extent – in this case, the extent of Idaho State.

Use the Home Button widget

The Home Button widget is automatically enabled when the app starts. Clicking the widget resets the map extent to the map's initial extent.

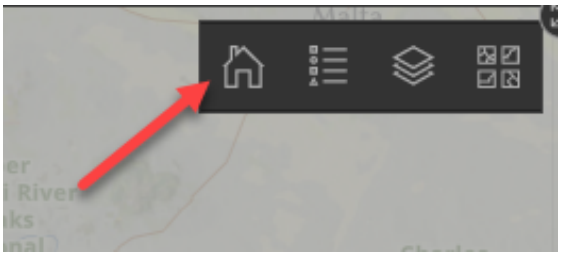


Figure 9(b): Default extent of the Map

3.2.1.3 Legend

The **Legend widget** displays labels and symbols for layers in the map.

Use the Legend widget

When the application starts, the Legend widget is automatically enabled. Clicking the Legend widget displays the Legend window. Clicking the x in the upper right corner of the Legend window closes it.

Note: Certain layers are "scale dependent" and only appear once the user zooms in. When zooming in, the layers appear in the map and the Legend widget and when zooming out, the layers disappear in the map and the Legend widget.

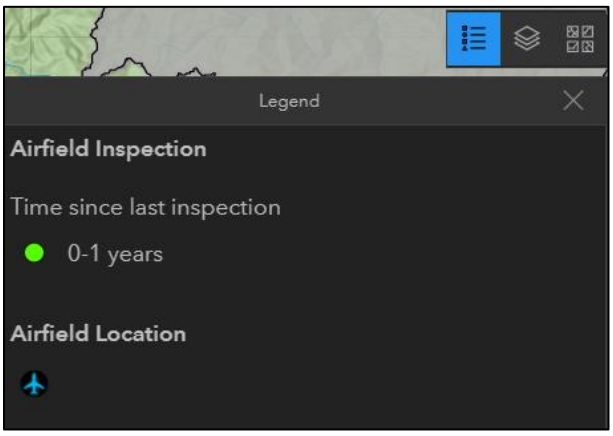


Figure 9(c): Legend

3.2.1.4 Layer List Widget

The **Layer List widget** provides a list of operational layers and their symbols and allows you to turn individual layers on and off. Each layer in the list has a check box that allows you to control its visibility.

Scale Dependent layers:

Certain layers are scale dependent and will only be displayed once the user zooms past a certain scale.

Use the Layer List Widget

1. Click the Layer List widget in the app to display the layer list window.
2. Click on the check box next to one of the layers
3. The selected layer is removed from the Map
4. Click on the check box next to an unchecked layer
5. The selected layer is added back and symbolized in the Map

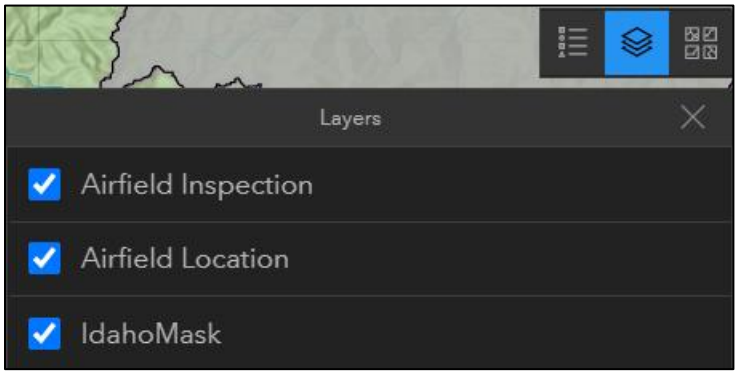


Figure 9(d): Layer List

3.2.1.5 Basemap Gallery Widget

The Basemap Gallery widget presents a gallery of basemaps and allows you to select one from the gallery as the basemap for your app.

Use the Basemap Gallery widget

Clicking the **Basemap Gallery widget** displays all the available basemaps. Clicking a basemap thumbnail sets it as the active basemap for the app. Click the x in the upper right corner of the Basemap Gallery window to close it.

The following basemaps are displayed in the tool:

Dark Gray Canvas, Imagery, Imagery Hybrid, Light Gray Canvas, National Geographic Style, Navigation, Oceans, OpenStreetMap, Streets, Streets (Night), Terrain with Labels and Topographic.

The Imagery basemap is displayed by default in the map.

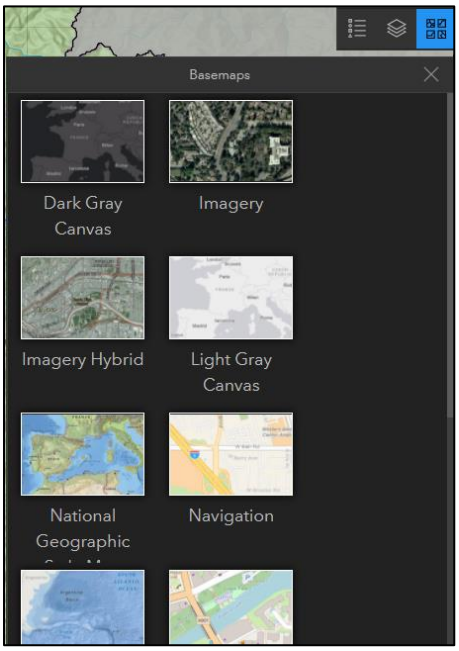


Figure 9(e): Basemap Gallery

3.2.2 Pop-up Windows

Pop-ups bring to life the attributes associated with each layer in the map, such as bridges, interstates or mile posts.

For example, the user clicks on a local bridge feature in the map and the pop-up displays on the left-hand side of the screen:

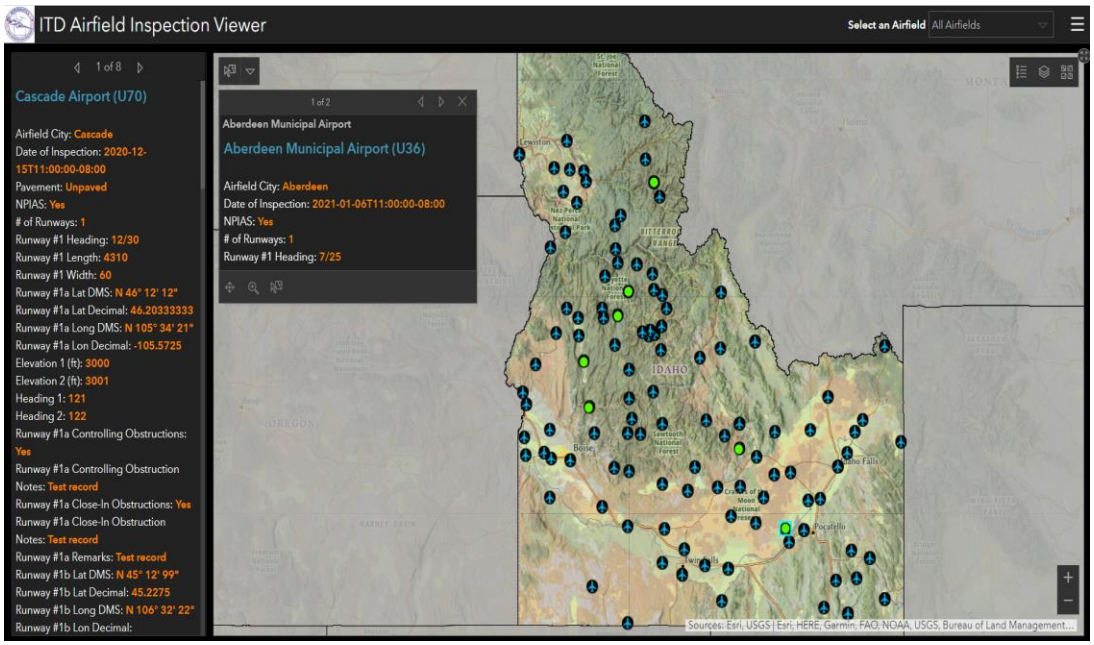


Figure 10: Pop-up displayed in Map

Pop-up Content

Airfield pop-ups display the information submitted using the Airfield Inspection survey.

User can also Pan to, zoom to or select a data point from the pop-up using the tools displayed at the below the pop-up window (Figure 11).

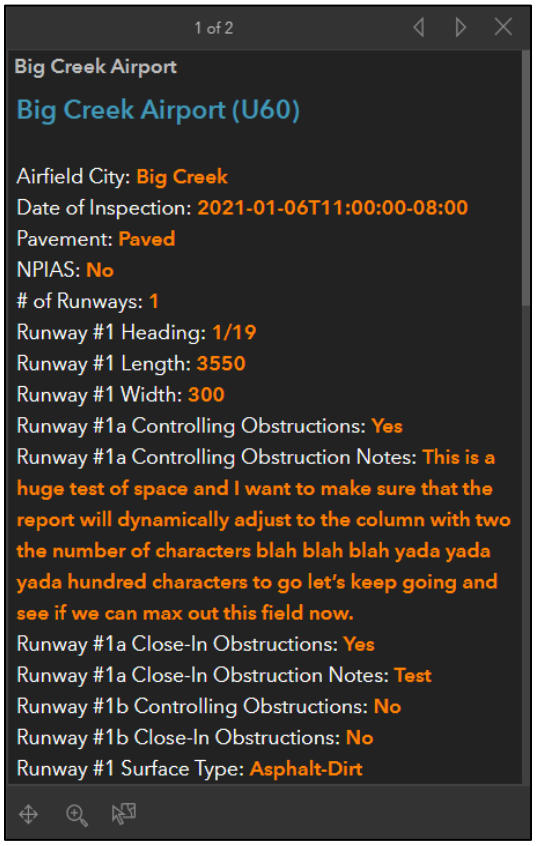


Figure 11: Information displayed in Pop ups

3.2.2.1 Multiple Pop-ups

If there are multiple data point selections, click on the arrows on top of the pop-up to view details for the other selected data points in the map. Clicking on Close button to close the pop-up window.

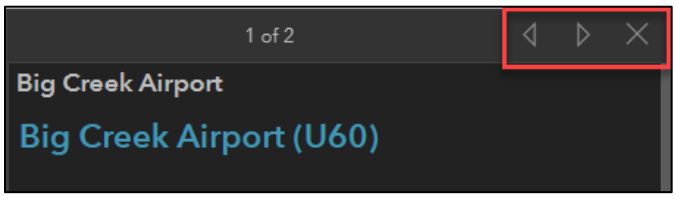


Figure 12(a): Information displayed in Pop ups

Pop-up Tools

Users can click on the three dots to display the following tools available in the pop-up window:

- **Pan To**: Map pans to the selected data point location
- **Zoom To**: Map zooms to the selected data point location
- **Select**: Selected data can be used to create a feature layer

Figure 12(b): Pop ups tools