Navigating the new
Aerial Photo Viewer

Open the *Aerial Photo Viewer*

www.thelist.tas.gov.au/aerial-imagery

1. Getting Started

Heritage and Land Tasmania holds an extensive library of aerial photography dating from the 1940's onwards. The Aerial Photo Viewer is an online digital application which allows users to search, view and download historic Tasmanian aerial imagery for **free** to use under [Creative Commons Copyright.](#)

1. What is the *Aerial Photo Viewer*

The Aerial Photo Viewer allows you to:

- Search, view and **download** Tasmanian aerial images **for free**

- Select photos on an **interactive map**

- Use filters to refine the **search by time and scale**

- View each aerial photo as a **low-resolution image**

- Download the **full resolution image**

The Aerial Photo Viewer (*Viewer*) allows you to search, view and download aerial photography, georeferenced aerial orthophotography (orthophotos) and digital orthoimagery over Tasmania.

The *Viewer* index displays the coverage of each aerial photograph frame (the extent of the image), orthophoto and digital imagery tile. You can quickly view a low-resolution image of the selected photo and download full resolution copies of the desired frame.

2. Compatible browsers and devices

The *Viewer* performs best with the latest versions of modern web browsers such as Firefox and Chrome. While older and other browsers are compatible, it is strongly recommended that you upgrade your browser for optimal performance and security.

Minimum requirements are:

- Firefox 3.6 and above
- Chrome 3.0 and above
- Internet Explorer 8.0 (Windows XP and Vista)
- Internet Explorer 8.0 and above (Windows 7 and 8)
- Safari 5.0 and above.

3. File format

Aerial images are available to download as high-resolution tiff files. All high-resolution files available for download by this *Viewer* are in tiff format with jpeg compression. These files can be opened using most photo and image viewing programs on your PC or laptop.

Georeferenced ortho photos and tiled digital photos are in (COG) Geo Tiff format with JPEG compression.

4. Spatial Reference

The spatial reference, or datum, for all georeferenced imagery is **GDA94/MGA zone 55**.

5. Glossary/Key words

Aerial photo

A photograph taken from a plane or airborne vehicle (including a drone or helicopter). These photos are taken with highly specialized, high-resolution cameras and taken at specific heights, so that they are produced at certain scales. These images are used for a range of purposes, including tracking historical changes and cartography.

Orthophoto

An orthophoto is an aerial photo that has been scale corrected and georeferenced. The aerial photos are geometrically corrected for tilt and terrain, or 'ortho-rectified'. The photo can then be used as a mapping background in GIS (mapping specific) software, as it will be aligned with other information such as contours or property boundaries.

Georeferencing

The process of taking a digital image and aligning with coordinates such so that its location sits in its appropriate place in a real-world representation.

Tiff (Geo Tiff) file

A file format that is typically is used for storing high quality images. Standard image viewing programs can usually open these file types. A Geo Tiff file is a Tiff file that has been georeferenced.

Scale

Scale is the ratio of the distance between two points on an image to the actual distance between the same two points on the ground. It is important to know the scale of the image under examination, as this can affect how you perceive or interpret what appears in the image. Scale also allows features in the image to be measured.

Small scale images, with a ratio of 1:25000 or 1:50000 for example, are those which cover a large area with less detail. A large-scale image, around 1:3000 or 1:5000 for example, will cover a smaller area but will show ground features in more detail.

6. *Viewer* layout

See diagram on the next page for a description of key components of the *Viewer*.

the List...

Zoom In / Out using the + and -

Toggle off/on Year Time slider toolbar below.

The dark blue polygons are areas with results based on both the Filter and Time Range.

Aerial Photo Viewer — LandTasmania

An interactive map displays three layers of data; Aerial Photos, Ortho Photos, and Tiled Digital Photos. Each rectangle feature in a layer represents the extent of the aerial photo.

To find the photos of interest

- Use the map to pan and zoom to location of interest
- Turn on / off the layers of interest
- Use the time slider control to define the time interval
- Select the photo on the interact map
    - Review the information in the dialog
    - Click thumbnail image to display low resolution image
    - Click the Download link to download full resolution image
- The search can be further refined based on scale for photos, and resolution for the digital tiles

Further further information:

- Link to PDF Help file
- Accessing and Obtaining Aerial Photography

Return to previous view.

Click on a coverage box to display the Aerial Photo Details.

Search by: Address, Feature or Lat Long coordinates.

Find address or place

About the *Viewer* and Help Notes.

Toggle through multiple photo selections

Refine Search

Filter By:

Photo Scale Less Than or Equal

Filter photos based on scale being less than or equal to value

Type in a Value

Apply   Reset

(1 of 21)

Aerial Photos: 1457_186.tif

Date	15 Mar 2011
Film	1457
Frame	186
Run	45
Scale	24,000
Download	More info

Thumbnail

Click to view thumbnail

Zoom to

Download full resolution.

Note: File sizes can be large.

Filter results based on scale or search by film number.

Layers — Bookmarks — Basemaps

Layers

☑ AerialPhoto_TimeV2 TEST
  ☑ Aerial Photos
  ☐ Ortho Photos
  ☐ Tiled Digital Photos

Change the Layers, Bookmarks or Basemap here.

2010 to 2021

40km

143.437 -44.175 Degrees

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Click and drag the two date indicators to filter a date range of photographs.

Open the map on your phone - QR Scan

Or www.thelist.tas.gov.au/aerial-imagery

2. Using the *Viewer*

1. Navigating the *Viewer*

There are several ways to move to a location of interest.

Using the zoom functionality

Zoom into or out of the map in the following ways:

- Move the mouse to the desired location on the map and scroll the mouse wheel forward or back.

- Click on the + and - buttons at the top left corner of the map view.

- Holding down the Shift button on the keyboard and the left mouse button, then drag the mouse (creating a rectangle) over the area of interest.

To zoom to the full extent of the V*iewer*, click on the   button towards the top left of the map.

To zoom to the previous view of the map use the arrow keys   in the top left of the map view

Using the mouse (Panning)

To navigate around the map section of the *Viewer*, click and drag the mouse in the direction you want it to move.

2. Using the search box to find an area of interest

In the top right-hand corner of the *Viewer* is a search box. This box allows you to search using the following inputs:

- Name (or part of a name) of a locality, place or feature (e.g., Hobart, Mount Wellington, Tamar River, Orford Bowls Club)
- Address (or part of an address) (e.g., 134 Macquarie St)
- Coordinates (using GDA94 Lat/Long - Decimal Degrees) (e.g., -41.976,147.10052)

To zoom to an address, named feature or coordinate, type the value into the '**Find Address or Place**' box (which can be found in the top right corner of the *Viewer*).
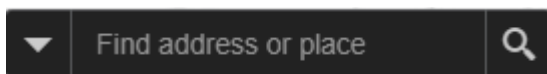
A list of results will appear. If there is more than one result, click on the best match – either select the result manually or use the drop-down arrow to filter the results by type. The *Viewer* will zoom to that location.
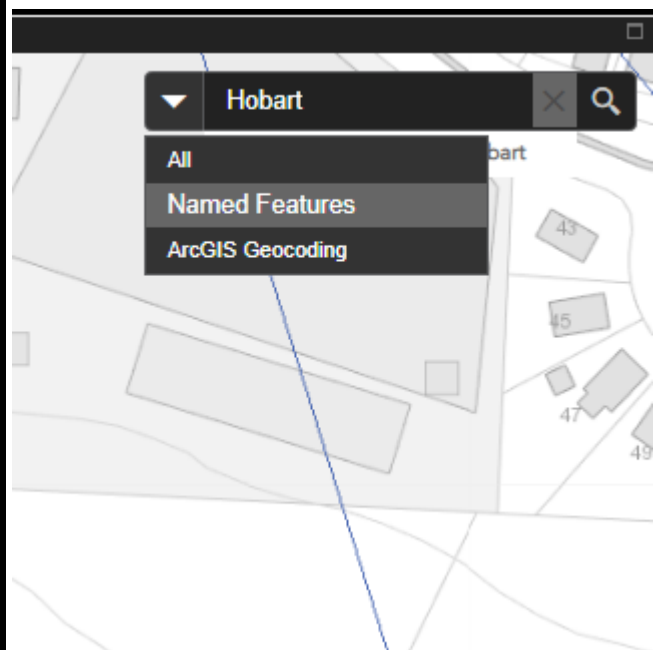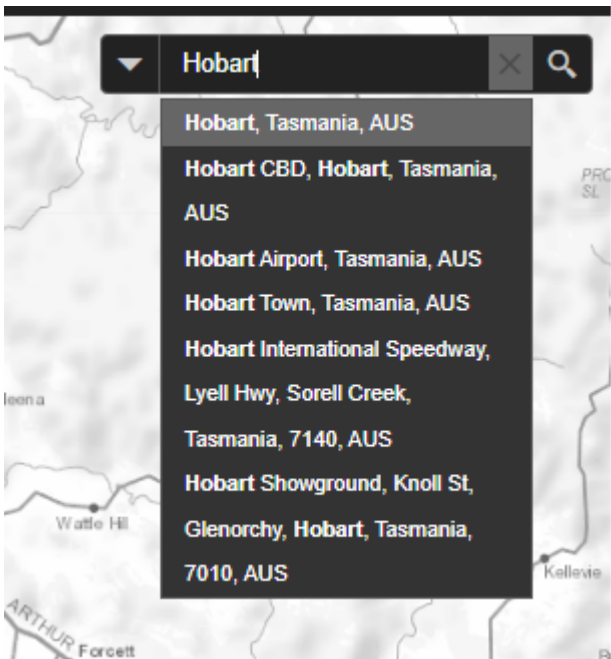
3. Refine search using Scale

You can further refine your search by filtering the results based on the scale of the image.

Select the Refine Search by Filter tab in the panel.
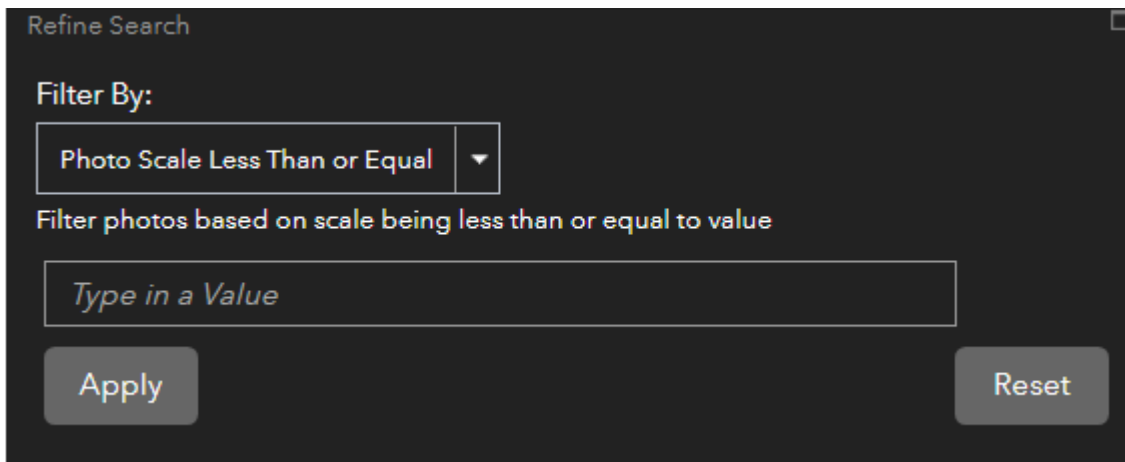
To filter by scale:

- Select from the drop down:
    - Scale Less Than or Equal or
    - Scale Greater Than or Equal
- Type a value into the box
- Click the Apply button

Note: To show results at all scale levels, leave the filter blank.

The **Reset** button will clear the Filter.

4. Layers

Layers are different datasets which can be overlayed (displayed) on top of the basemap.

Three imagery index layer libraries are available for searching and viewing:

Aerial Photos are the raw analogue (film) aerial photos, with no georeferencing.

The Aerial Photos layer contains a polygon that represents the extent of an aerial photo. The attributes (fields) of the polygon contain the film number, frame number, scale, and date of the aerial photo. A field contains the URL or link to the thumbnail, and a URL to the image for download.

These photos include images from 1944 to 2012.

Ortho Photos are the aerial photos geometrically corrected for tilt and terrain, or 'ortho-rectified'.

The Orthophoto Coverage layer contains a polygon that represents the extent of an orthorectified aerial photo. Raw aerial imagery cannot be used in a GIS until it has been processed such that all pixels are in an accurate (x, y) position on the ground. Orthorectified images have been processed to apply corrections for optical distortions from the sensor system, and apparent changes in the position of ground objects caused by the perspective of the sensor view angle and ground terrain. The attributes (fields) of the polygon contain the film number, frame number, scale, and date of the photo. A field contains the URL to the thumbnail, and a URL to the image for download.

These photos include images from 1944 to 2012.

Tiled Digital Photos are images of digital orthorectified and mosaiced aerial imagery that have been tiled (split) into 1 km square tiles for ease of download.

These photos include images from 2009 to present.
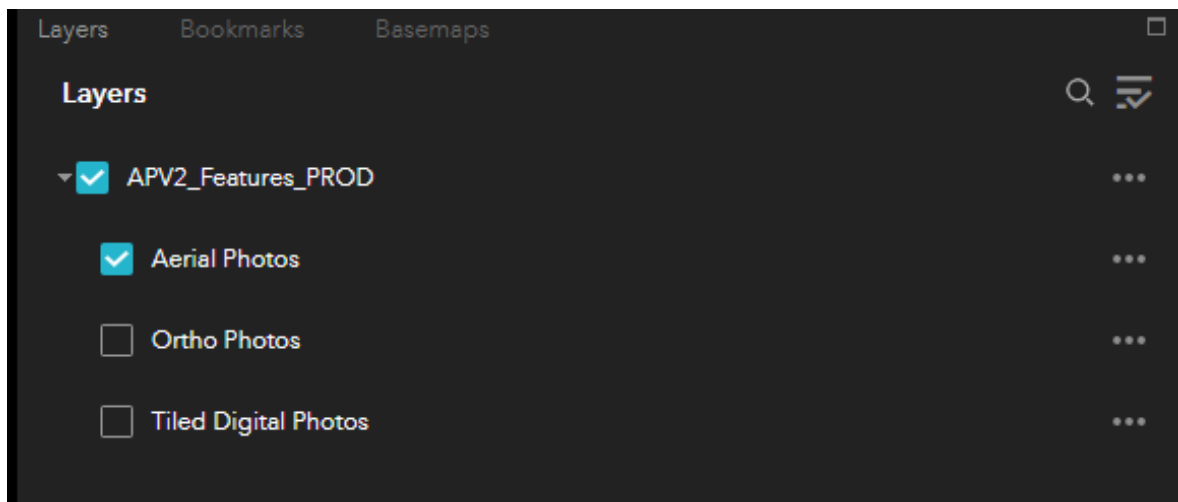
5.Bookmarks

Bookmarks to major Tasmanian population centres are an easy way to quickly move to a location in the *Viewer*. In the bottom left panel of the *Viewer*, ensure the Bookmark Tab is selected (by clicking on the Bookmarks text), then click the bookmark to zoom to that location. This will then move the map view to the selected Bookmark location.
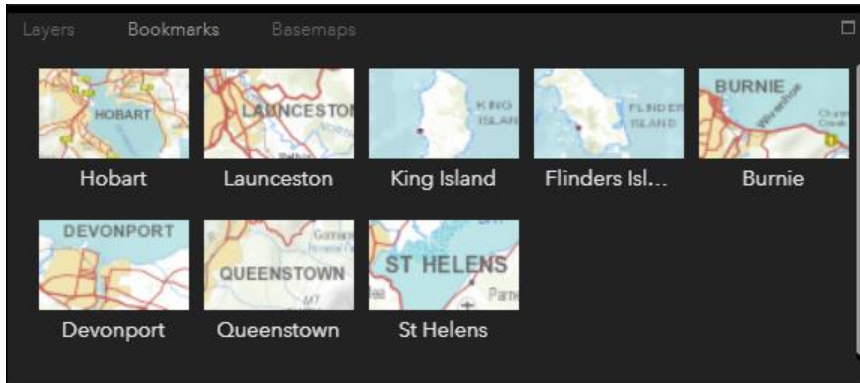
6. Changing the basemap

Basemaps are a collection of image/s, or maps which provide a reference for the *Viewer* to overlay information on. The function of the basemap is to provide background detail necessary to orient the location of the map that can help the user visualize where they are in the real world.

The default basemap is the Topographic Grey. You can change the basemap by clicking the Basemaps tab in the panel on the left, then selecting the preferred basemap from the selection.

The current basemaps which we currently include are:

**DPIPWE Simplified** – a simple map which only shows very basic cartographic features.

DPIPWE State Aerial Photo – Tasmania State Orthophoto compilation. The resolution of the raster capture varies, with many urban areas at a higher resolution.

DPIPWE Topographic – a more complex basemap containing topographic features which will change in detail depending on the viewing scale.

DPIPWE TASMAP Basemap – a basemap created using historic TASMAP maps which will change depending on the viewing scale.

DPIPWE Topographic Gray – a gray version of the DPIPWE Topographic map.

Imagery with Labels – a basemap which is a compilation of satellite imagery provide by that has with major features labeled.
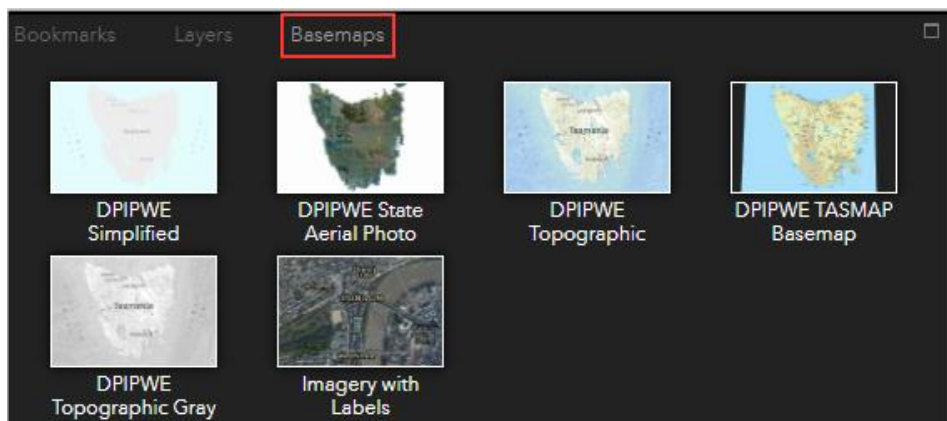
3. Filter the Year with Time Slider

The Time Slider is found at the bottom of the screen when you first open the *Viewer*. It allows the user to adjust the time range of that the user would like to search on. When the *Viewer* is first launched, the Time Slider is set to limit photo coverage to the years 2010 to 2021.
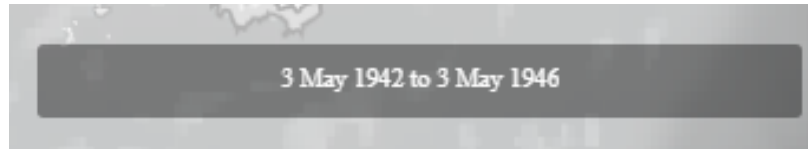
1. Year Time Slider Filter

To adjust the Time Slider, activate it by hovering your mouse over the dates. The date range and slider bar filter will be displayed, which can be utilized to adjust the search to your desired date range.
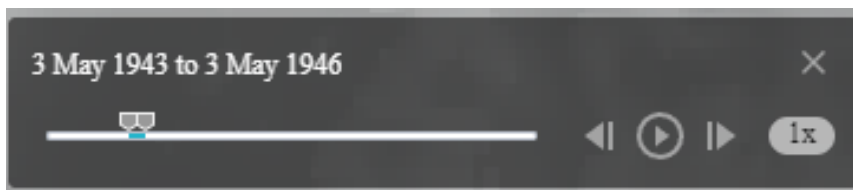
Additional functionality of the Time Slider includes:

- Using the Previous / Next buttons to step up and down through time (one year at a time).

- A play button which will adjust both ends of the range forward by 1 year, updating continuously every three seconds – though this can be adjusted using the multiplier to speed up or slow down this progression.

  If you close the time slider using the x in the top right of the filter, the filter will be turned off and all photos will be shown in the *Viewer*.

- To re-enable the Time Slider, click the Time Slider button in the top left of the map.
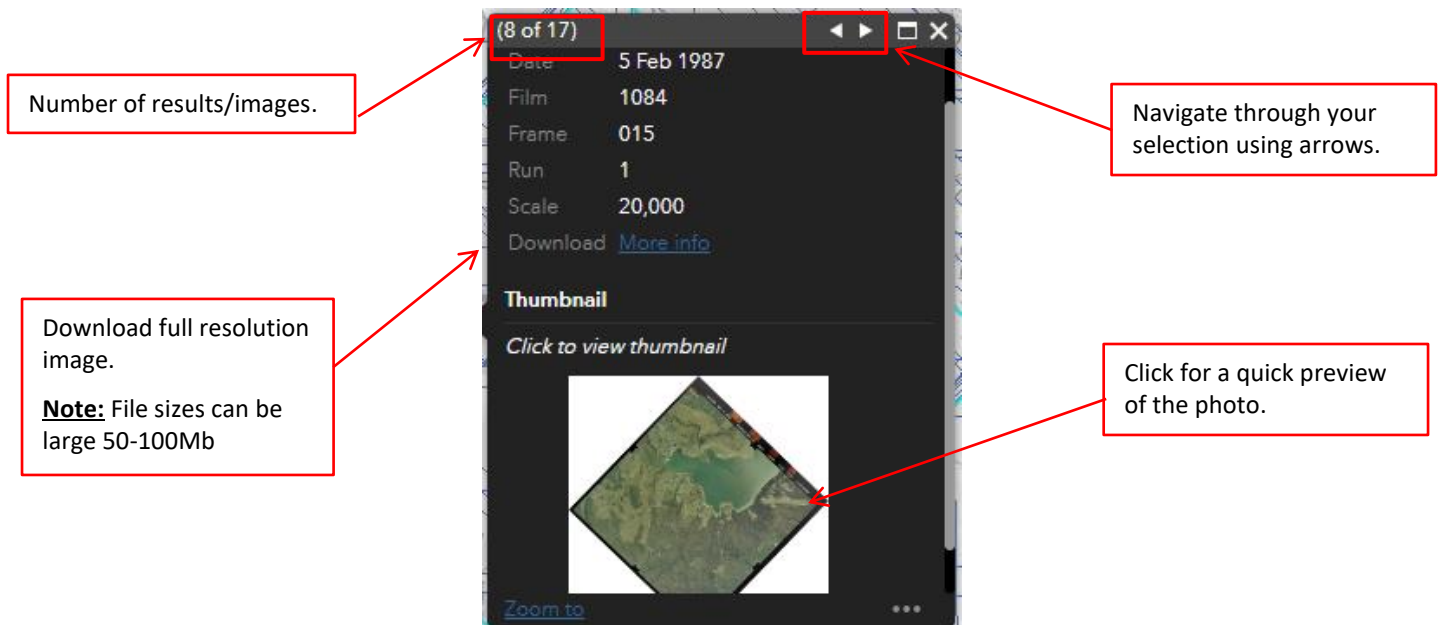
4. Viewing a preview and downloading photos

1. Viewing a photo from the map view and downloading

Once you have:

- selected an index layer
- zoomed to your area of interest and
- refined the search using the Time Slider,

Click inside a blue coverage box that covers that area. A pop-up window will display preview of the available photo(s), along with its details.

Number of results/images.

Navigate through your selection using arrows.

Download full resolution image.

Note: File sizes can be large 50-100Mb

Click for a quick preview of the photo.

If more than one photo covers the area, the number of results will be displayed at the top of the pop-up window. The arrow is used to navigate the selection. As details of each photo are displayed, the outline of the corresponding photo is highlighted in light blue.

Each photo area displays:

Date (the photo was taken).

The film number (The unique reference number assigned to the physical film from which the image has been scanned from).
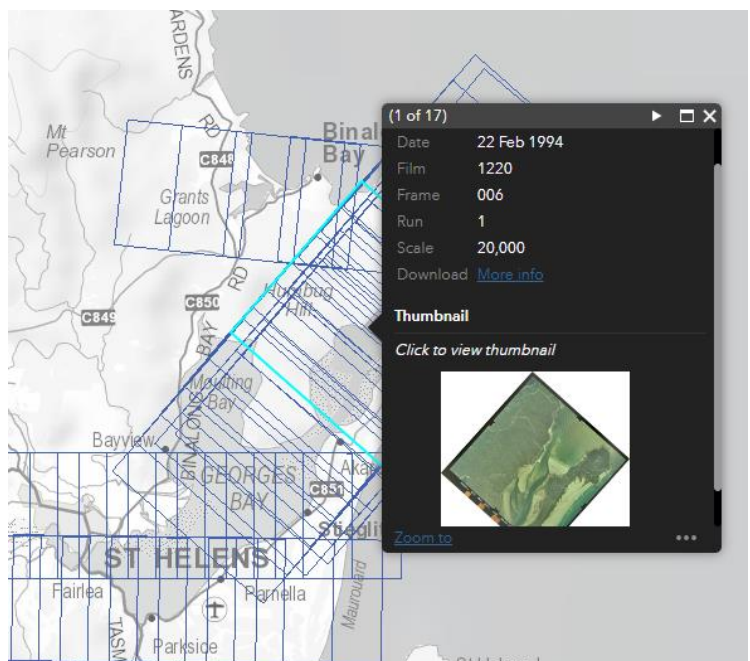
The frame number (The unique reference number assigned to each frame on the roll of film.)

Run number (The reference number assigned to each flight path of the aircraft for a project.)

Scale of photo.

Download link (for the full resolution photo).

Thumbnail image of the photo (to see a preview).

5. Copyright, Licensing and Data use

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https://listdata.thelist.tas.gov.au/public/LandTasmaniaDataAttributionGuidelines.pdf

6. Further Support

For general enquiries relating to use of the application, conditions of use or download issues contact:

LIST Help Desk

Phone: (03) 6165 4444

Email: listhelp@nre.tas.gov.au

For specific enquiries regarding aerial photography (e.g., Image capture program) contact:

 aerialphotos@nre.tas.gov.au

For more information on Tasmanian Aerial Photography visit:

https://nre.tas.gov.au/land-tasmania/aerial-photography