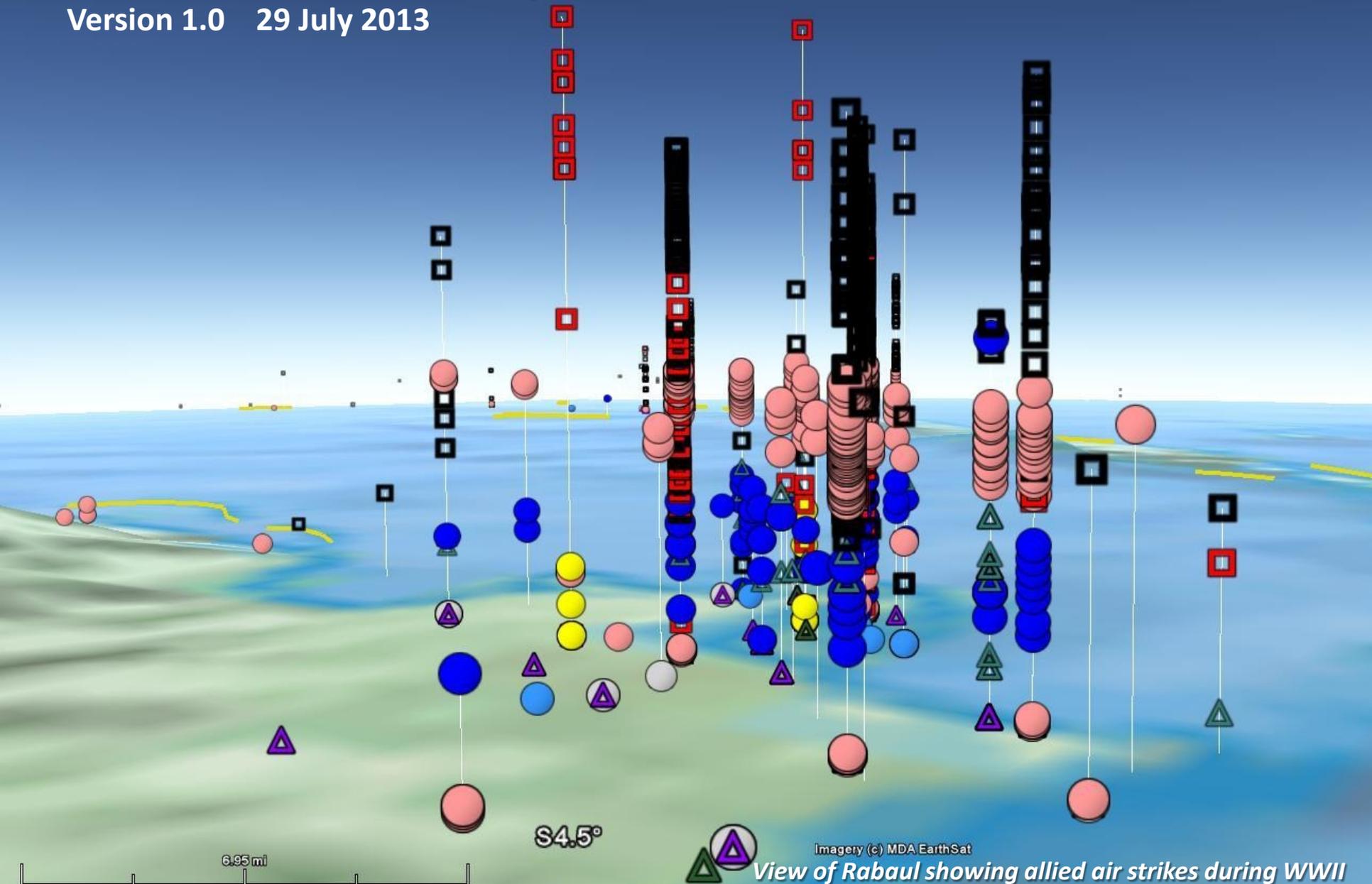


Dec 31, 1945

THOR Website Quick Start Guide

Version 1.0 29 July 2013

1941



6.95 mi

S4.5°

Imagery (c) MDA EarthSat

View of Rabaul showing allied air strikes during WWII

lat -1.243984° lon 150.466774°

Welcome to the *Theater History of Operations Reports (THOR)* Website

You might be asking yourself, so how does this work? This is a quick start guide to walk you through the basics of using the site.

On the opening screen, you are presented with four choices. “Download User Manual” is the button to download this document. If you’re not sure what you want to do or you have questions, we have a button for that as well. Let’s choose “THOR FAQ’s”

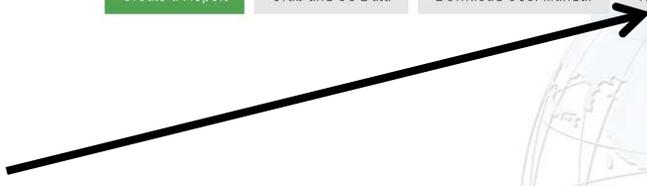


Welcome.

THOR provides a quick and reliable way to view past airstrike data, and provide a historical summary. Additionally, by using [Google Earth](#), this information can be presented graphically, and allow for time series presentations.

- Create a Report
- Grab and Go Data
- Download User Manual
- THOR FAQ's

Click here



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Email Updates:
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Asking a Question

We've put together a list of Frequently Asked Questions to handle the most common requests we get from users. We will update the list periodically, as we get feedback, so you might want to check back from time to time. What if your question isn't answered here? Click on the "Contact" button to write us a short note. Please provide a name and email address so we can respond to your request



FAQ's

Why should I use THOR? What does it provide?

Never before has there been a means of swiftly referencing where and when air strikes have been conducted across the globe. Vague mentions of strategic bombing such as "in Germany" have never allowed a detailed examination of effects generated or joint fires created when combined with land and sea forces. Conversely, anecdotal stories "from the cockpit" usually fail to tell the larger operational or strategic story of how that one plane or one squadron fit into the larger campaign narrative. For the first time, THOR provides a quick and reliable way to view air strike activity from 1915 to 1975, and provides the capability to generate historical summaries based on user-selected criteria to answer basic questions of who (callsign, service, country) how many (strikes, weapons, etc) what kind (aircraft, weapons, etc), when, and where. Additionally, by using Google Earth, this information can be presented geographically, and it allows for time series presentations (movies), as well as strike density and weapon intensity comparisons, to be made. Other sources of information, such as population density, etc, can be graphed on Google Earth to compare with air strike information.

Doesn't this capability already exist? Why did you reinvent the wheel?

If it exists, we haven't found it. We didn't invent THOR because we thought it would be neat, we built it to answer recurring questions about how airpower has been used in war. If you know of a similar or better capability, please contact us at thor@us.af.mil so we can compare ideas.

What does your database currently contain? How current is it?

THOR contains data from 1915 to 1975, covering World Wars I and II and the Vietnam War. It is as complete as we've been able to make it. We suspect there are some gaps in WWI – particularly in the Italian records, and are compiling the French bombing record in WW1. Vietnam is missing data prior to September 1965, and also the month of November 1967 is missing (due to water damage to its magnetic tape archive). To the best of our ability, the rest of the information is as complete as records document. The Korean war records are being hand transcribed from paper mission reports, and will be posted as soon as that action is complete.

Why bother including past wars in THOR? The current war is completely different than ones we've fought before.

Postwar assessments do not necessarily contribute to the current war but may still prove important to employing effects-based operations (EBO) and predictive battlespace awareness (PBA) in future wars. Correctly anticipating enemy responses and the ways airpower can best be used to exploit them might be based on modeling. One way to calibrate predictive models would be to understand how adversaries responded to previous airpower applications. (See "Slow Airpower Assessment: A Cause for Concern?" Lt Col Paul D. Berg, USAF, Air and Space Power Journal, Fall 2004, pp. 75-83) Additionally, some doctrine and strategies may be timeless. By providing the data, this idea can be more fully explored.

Why don't you include Weapon System Video (WSV) or post strike (BDA) imagery?

We look to add new features as our capability grows. We are excited about WSV and BDA imagery, but we would ask for help to host that information in a way we can reliably link to it—including it inside the THOR database would seriously bog down performance, as we are currently sorting through 4 million+ records to process a query.

Why do you report weapons dropped by weight? is that really the best metric?

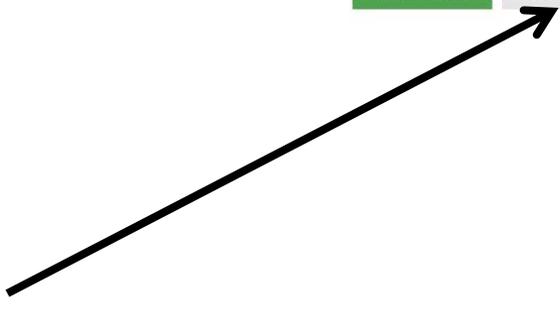
Click here

Welcome to the *Theater History of Operations Reports (THOR)* Website

To make your life easier, we've posted the results from some of the more popular searches and made them available for immediate download. It may save you from having to do multiple or complex queries. Let's choose "Grab and Go Data" from the Welcome screen (or click "Downloads" from the menu bar.)



Click here



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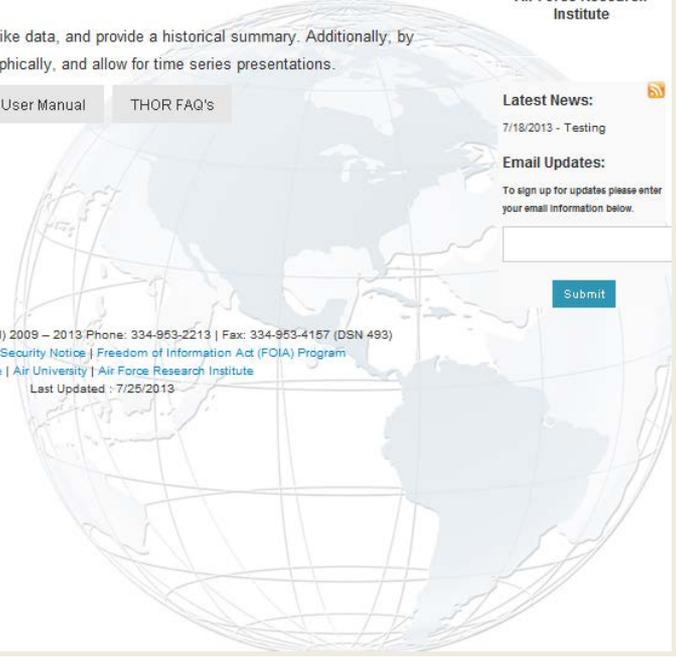


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Last Updated - 7/25/2013



“Grab and Go” Data

Sometimes you just want to look at the big picture, or don't have time to do multiple queries. Take a look at the data ready to download in the “Grab and Go” section. If you see what you want, click on it and the data will begin downloading to your computer. Need the entire THOR dataset (WWI, WWII, and Vietnam)? Click on the Full Database Download link. It will send you to a contact form where we request your email address so we can alert you to future data updates and fixes, and then your download will begin



Downloads

We have provided you with the entire THOR dataset for your own use. We have also created some "Grab and Go" KML files for Google Earth. If you have any questions about the data or wish to show us a project you have used THOR for please [let us know!](#)

Click here for full database download

Full Database Downloads

Download the entire THOR dataset [Here](#).

Grab and Go Data

Data we have already prepared for you to use in Google Earth (.kml files).

World War 1

[Western Front](#)
[Italian Front](#)

World War 2

[European/Mediterranean Theaters](#)
[European/Mediterranean Theaters USSAF Only](#)
[European/Mediterranean Theaters RAF Only](#)
[European/Mediterranean Theaters](#)
[Pacific/CBI Theaters](#)

Vietnam

[1965](#)
[1966](#)
[1967](#)
[1968](#)
[1969](#)
[1970](#)
[1971](#)
[1972](#)
[1973](#)
[1974](#)
[1975](#)

Select “Grab and Go” Data

Welcome to the *Theater History of Operations Reports (THOR)* Website

If the prebuilt solutions in “Grab and Go Data” don’t meet your need, then you can create your own custom report in just a few simple steps. On the opening screen, you are presented with three choices. Let’s choose “Create a Report”



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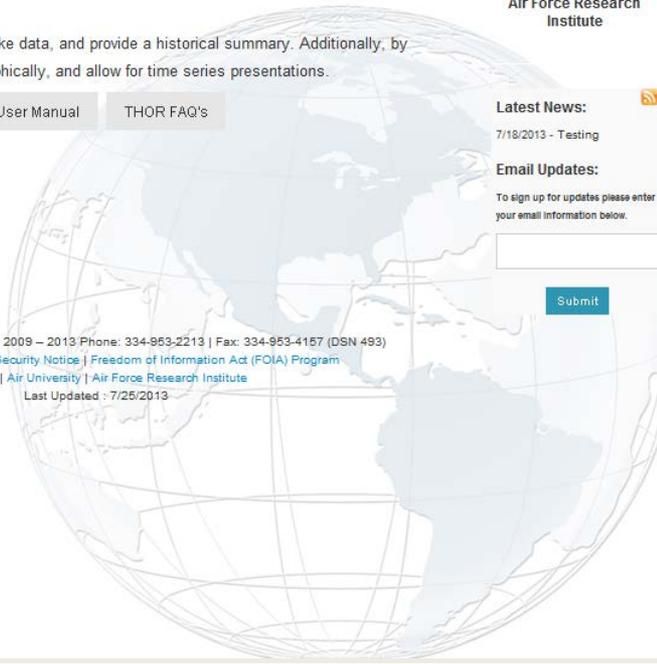
Click here →

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Choosing a Data Set

After selecting “Create a Report” you are given the option of choosing which war’s data you wish to query. Each war’s data is organized slightly differently, so each data set is tuned to that conflict’s information structure.

Let’s choose World War 2 by clicking on the campaign ribbon for that war



Choose your Conflict

World War 1

Comprised of 743+ allied records from WWI, US data in the collection is digitized from the Daily Raid Reports of the 1st Daylight Bomb Group of the American Air Service in World War 1. This includes records from the 98th, 20th, 11th, and 168th Aero Squadrons. These daily records span dates from June to November 1918, and are the most detailed records found to date. British records of the Royal Naval Air Service/Royal Flying Corps/Royal Air Force (RNAS/RFC/RAF) cover the period from 30 June 1918 to November 1918 for the No. 55, 97, 99, 10, 104, 110, 115, 215, and 216 Sqdns. Italian Front data covers the period from 1915 to October 1918, and contains data on Italian and American-piloted bombing missions. The Italian data is drawn largely from official bulletins released during the war, which understandably omit many of the operational details of the Italian missions (exact bomb load, exact number of aircraft, etc are often missing). French data from 1914-1918 is still being researched and is not included at this time.

Click here 

World War 2

Drawn from the newly digitized records of the United States Strategic Bombing Survey and the US Army Air Forces Evaluation Board as well as individual unit records, the 178,000+ WWII records includes the following theaters of war:

European Theater (ETO): RAF and USAAF (8 AF, 9 AF, 15 AF, 1 TAC) Combined Bomber Offensive Sep 1939- May 1945 in Europe. Some strikes lack Numbered Air Force affiliation and unit information is not currently available for the records.

Mediterranean Theater (MTO): RAF 1940-1945 (partial records; known gaps Jan-Aug 1942, partial data 1942-1945 - exact aircraft numbers and bomb loads missing from some entries); USAAF (9 AF, 12 AF, 15 AF) June 1942- May 1945. It is believed that the records in THOR constitute of only a fraction of the RAF contributions in the war effort in this theater, and that more records are needed.

Pacific Theater (PTO): USAAF Dec 1941-Aug 1945 (5 AF, 7 AF, 11 AF, 13 AF, 14 AF, 20 AF); RAAF Dec 1941-Dec 1942; RNZAF Oct 1943-Aug 1945. It is believed that the records in THOR constitute of only a fraction of the RAAF and RNZAF contributions in the war effort in this theater, and that more records are needed. 11 AF Kiska and ATTU islands data complete from 1943-1945. Additional data on attacks on these islands in 1942 is being reviewed for completeness. US Navy and Marine Corps aircraft data is only available at monthly summary resolution.

China-Burma-India (CBI): USAAF Dec 1941-Aug 1945 (10 AF, 14 AF, 20 AF); RAF data 1942-1944 has significant gaps in coverage. It is believed that the records in THOR constitute of only a fraction of the RAF contributions in the war effort in this theater, and that more records are needed.

Vietnam

Data represents 4.3+ million airpower records from three Vietnam-era Joint Chiefs of Staff databases: Combat Activities File (CACTA) 1965-1970, Southeast Asia Database (SEADAB) 1970-1975, and Strategic Air Command Activities Database (SACCOACT) 1965-1975. These three databases have been combined to provide a comprehensive database on bombing from October 1965-April 1975, and contain records from the USAF, USN, USMC, and allies during this time period. There are some gaps in the record, namely Nov 1967 is missing, due to water damaged data files. There are also isolated gaps occurring throughout the record totaling approximately three weeks. To provide and preserve the most complete record possible, non-bombing missions (reconnaissance, cargo, etc) have also been kept in the database, allowing other aspects of airpower to be explored.

Filtering the Data

Here's where you get to interact with the data. For performance reasons, output is limited to 20,000 records per query. One query will currently encompass all of WWI, Nine queries would encompass all of WW2, and 225 queries would be needed to cover all of the Vietnam war records – so filtering can play a vital role in narrowing your search

The most important search criteria is setting the Date Range



THOR - World War 2

For speed and performance reasons, the search function will return *limited* records per search. You may need to perform multiple search queries to retrieve all of your desired data, or consider downloading the entire database from our [downloads](#) page. Please contact us at THOR@us.af.mil if you have questions or concerns.

Date is mandatory. Leave everything else blank to see all data.

Report Types

On Screen Reports

- Excel Spreadsheet
- HTML

Google Earth Report

- At Ground/Altitude

[Get Data](#)

Start Date:
Day Month Year

End Date:
Day Month Year

Country Flying Mission:
Choose One

Aircraft Type:
Choose One

Service:
Choose One

Target:
Choose One

Munition Type:
Explosive
Choose One

Write the characters in the image below.

Incendiary
Choose One

Fragmentation
Choose One

Set Start and Stop Dates here



Filtering the Data 2

Next, choose whatever other criteria you wish to use to narrow your data search. Leaving an option field blank means that the database will return all options for that field that it finds in the first 20,000 records

You can narrow your search by:

1. The Country flying the mission
2. The Service flying the mission
3. The specific munition type
4. The aircraft type
5. The target country

Or combinations of criteria

Theater History of Operations Reports Database FAQ Downloads Contact Links

THOR - World War 2

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Date is mandatory. Leave everything else blank to see all data.

Start Date: Day Month Year End Date: Day Month Year

Country Flying Mission: Choose One

Service: Choose One

Munition Type: Explosive Choose One

Incendiary Choose One

Fragmentation Choose One

Aircraft Type: Choose One

Target: Choose One

Write the characters in the image below.

SPANGLES Get a new challenge

Get Data

Report Types

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Data Output

Once you've chosen your criteria, the next step is to choose what you want the output to look like. You can choose between a table of the data viewable on-screen, a downloadable Microsoft Excel table of the data, or a downloadable Google Earth-compatible file



THOR - World War 2

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Date is mandatory. Leave everything else blank to see all data.

Start Date:

Day Month Year

Country Flying Mission:

Choose One

Service:

Choose One

Munition Type:

Explosive

Choose One

Incendiary

Choose One

Fragmentation

Choose One

End Date:

Day Month Year

Aircraft Type:

Choose One

Target:

Choose One

Write the characters in the image below.

SPANGLES [Get a new challenge](#)

Report Types

On Screen Reports

Excel Spreadsheet

HTML

Google Earth Report

At Ground/Altitude

[Get Data](#)

Once you've made your choice, Select "Get Data" and the database will process your query

Google Earth screenshot of THOR data for the WWII European and Mediterranean Theaters of Operations by USAAF and RAF aircraft

