

RouteFinder



“Flight planning tools for flight simulation”
<http://rfinder.asalink.net/>
©2005 ASA srl – Italy

User’s manual

Contact Information:
RouteFinder team - rfinder@asalink.net

Document Version: 2 JAN 2005

Table of contents

Important notice	2
What is RouteFinder?	3
Current completion status.....	3
Login	4
Auto routing	5
The basic options	6
Advanced options	7
Route editing (NOT IMPLEMENTED YET).....	10
Flight plan export	11
Charting	12
Example – creating an enroute chart for Italy	12
Charting options / parameters.....	14
Database	19
How to query the database	19
NOTAM Section	24
Reference tables	28
Tools	29
Calculation of true bearing and distance between two points.....	29
Determination of a point at a specified bearing and distance from a given starting point	29
Quick-start guide to SVG.....	30
Appendix A – ARINC area codes	31

Important notice

This document describes an on-line system to be used only for PC flight simulation purposes. ASA srl, the maintainer and provider of the service, expressly forbids to use this site and the associated documentation to obtain data to be used for real-world flying or any other operative purposes, especially where human lives may be put at risk. There is no guarantee that the system described here will provide uninterrupted operation, correct data, nor useable results.

ALL REFERENCES to AIRCRAFT, AIRCRAFT SYSTEMS, AVIATION PROCEDURES and anything comparable with its real world counterpart herein described is intended to be referring only and uniquely to a simulated environment.

RouteFinder, flight planning tools for flight simulation – ©2005 ASA srl – Italy

What is RouteFinder?

Those of you who entered the flight simulation world with "Flight Simulator II" (by SubLogic, 1982) may remember that the software was complemented by aeronautical sectional charts covering the Chicago, New York, Seattle and Los Angeles areas. As a matter of fact, they were enough to navigate within the simulated world – there were not other areas to explore, and the simulated aircraft was a Piper Archer PA28, no FMS, no long range flights, no (or very few) updates to the scenery.

Today's PC simulators offer much more complex environments, closer to reality. We even have online ATC, and the flight simulation enthusiasts are even pickier than ever (which is good, isn't it?)

RouteFinder was born in 1997 as an experimental service, built by a "simmer" for "simmers". Not many flight simulator users had the opportunity to use a real aviation enroute chart for planning their flights, and the route between departure and destination airports was a "mystery" for those who didn't have such charts; the idea was to create something which would help Virtual Airlines and virtual pilots finding their way, when they knew the departure and destination airports, but had no idea about how to plan a realistic route between them.

To put it simply, RouteFinder is a collection of tools for planning simulated IFR flights. While it's far from being a complete flight planner (we don't have a route editor yet!), it's already pretty useable.

Since we want to maintain the same spirit that was behind the first version of the system, we keep a "free" version of the RouteFinder online at the following address:

<http://rfinder.asalink.net/free/>

This is a reduced version, which will do auto-routing only, without charting and/or database.

Current completion status

Auto-Routing	Active (at the moment it is almost the same as the free area, with minor algorithm tweaks)
Route Editing	NOT YET OPERATIVE
Aircraft Performance calculations	NOT YET OPERATIVE
FMS Export	Plain text, SquawkBox, Flight Simulator 200X, FSNavigator, PMDG 737, X-Plane 7.30, Wilco's 767 PIC
Charting	Ability to create SVG charts (Enroute-chart style) of any area of the globe. Each graphical feature is linked to the database (see below), so that with a mouse click it is possible to reveal more detailed information. Current limitations - big maps (e.g. entire Europe) may not be practical to plot with all information layers selected (mainly due to performance issues related to the SVG file format).
Database	Ability to query the aeronautical database for: Airports, VOR/DME, NDB, Waypoints, FIR/UIR, PRD zones, Other restrictions, Airways, TMA/CTR/ATZ.
NOTAM	Ability to query the NOTAM database (e.g. to know all applicable NOTAMs for an airport, FIR, or to search for particular text / NOTAM number)

Login

In order to use the features offered by the system it is necessary to log in. Account data (login and password) are assigned upon subscription.

Please refer to the online pages for information about the subscription details, as they may change.



The image shows a login form for RouteFinder. At the top, it says "RouteFinder" in bold. Below that, it says "Log in, [subscribe](#) or access the [free area](#)". There are two input fields: "Login:" and "Password:". Below the password field is a "Login" button.

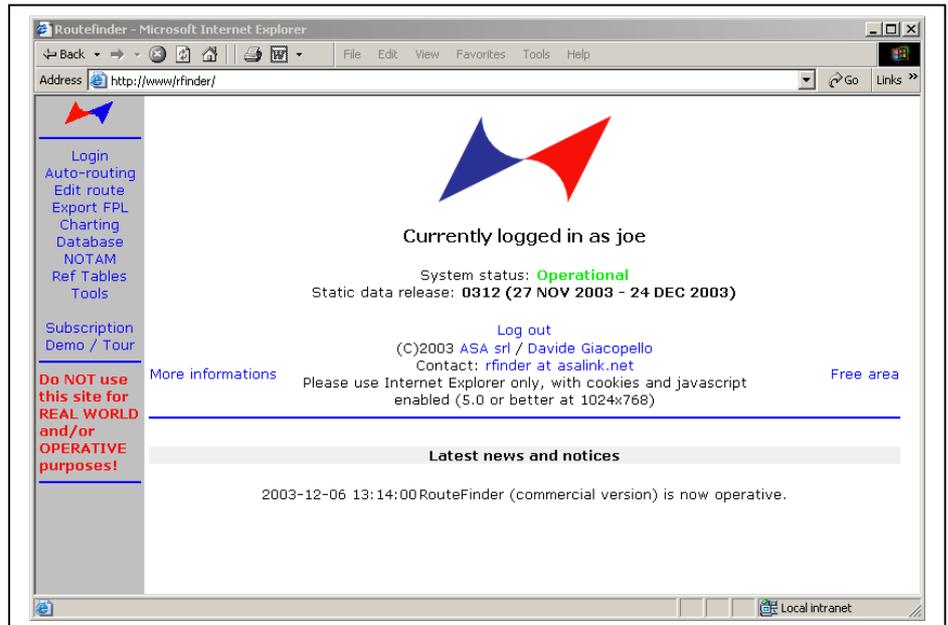
This section of the site has the double function to authenticate legitimate users and, once the user has been identified, show a quick summary about the status of the system.

Sometimes the system may be under maintenance when the user logs in. In this case the "system status" indication will change from "Operational" (green) to "Maintenance" (red).

Please note that while the system may still respond and operate in "Maintenance mode", the behavior and final results may be incoherent.

The currently loaded dataset validity is also shown ("static data release").

The session with the user's browser is maintained for several hours, so that once you log in you won't have to do it again and again if you often close and reopen the browser program.



However please remember to store your login and password data in a safe place in order to avoid losing and forgetting it, and not being able to log back in after the session expires.

We recommend the following configuration to use RouteFinder:

- Windows 2000 or later
- Internet Explorer 5.5 or later
- Adobe SVG Viewer 3.0 or 3.01 (not 6.0 beta) – see <http://www.adobe.com/svg>

Unfortunately, personal firewalls and/or antivirus programs that filter your browser's content in "real time" are known to create problems in some cases. If you see partial pages (forms without fields, missing buttons and links) we suggest you try to disable temporarily your firewall/antivirus while you use this system.

Mozilla-based browser are known to work, unless for the SVG graphics. We have been able to test the system using SVG Viewer 6.0 beta and Firefox browser, but this is not yet a stable configuration.

Auto routing

This module finds a "realistic" routing between two airports.

At the moment, this is the only way to build a flight plan in the system, until the "Edit route" environment will be completed.

This screen has been split into three areas: on the top you will find the basic options, which need to be filled to obtain any useful result from the system.

RouteFinder auto-route module

Departure	Destination
Fix ID / Airport ICAO ID: <input type="text" value="LEPA"/> (e.g.: LIRF)	Fix ID / Airport ICAO ID: <input type="text" value="LIRA"/> (e.g.: EGLL)
Country code: <input type="text"/> (optional)	Country code: <input type="text"/> (optional)
Enroute altitude: between <input type="text" value="FL330"/> and <input type="text" value="FL330"/>	Level: <input type="button" value="Both"/> ▾

Use SIDs
 Use STARs
 Ease transitions
 RNAV equipped
 TACAN routes NATS: ▾

Warn for restrictions: RAD CDR (Use daily CRAM)

User-defined routing restrictions:

The middle part of the screen allows a customization of the auto-routing algorithm, while the bottom part gives the possibility to impose particular restrictions to the algorithm.

After filling in the required fields, use the "find route" button. RouteFinder will "think" for few seconds and come back to you with an (almost) complete flight plan, which can be exported to file or displayed in the graphic subsystem.

RouteFinder auto-routing results

Computed route from **PALMA DE MALLORCA** (LEPA, LE) to **CIAMPINO** (LIRA, LI): 12 fixes, 469.9 nautical miles

Cruise altitude between FL330 and FL330

LEPA (0.0nm) -SID-> MORSS (92.2nm) -UM603-> RIPAL (97.2nm) -UM603-> DORAD (220.9nm) -UM603-> ALG (260.9nm) -UL5-> MINKA (291.0nm) -UL5-> POZZO (311.2nm) -UL5-> TALIN (326.1nm) -UL5-> BATOX (354.6nm) -UL5-> TINTO (398.6nm) -UL5-> VALMA (415.6nm) -STAR-> LIRA (469.9nm)

Details:

ID	FREQ	HDG	DIST	Coords	Name/Remarks
LEPA		0	0	N39°33'06.03" E002°44'19.71"	PALMA DE MALLORCA
MORSS		77	92	N39°57'24.00" E004°40'00.00"	MORSS
RIPAL		77	5	N39°58'41.00" E004°46'17.00"	RIPAL
DORAD		77	124	N40°28'42.00" E007°23'18.00"	DORAD
ALG	113.8	78	40	N40°37'41.00" E008°14'38.00"	ALGHERO
MINKA		68	30	N40°49'06.00" E008°51'18.00"	MINKA
POZZO		68	20	N40°56'45.00" E009°15'59.00"	POZZO
TALIN		69	15	N41°02'18.00" E009°34'18.00"	TALIN
BATOX		69	28	N41°12'48.00" E010°09'24.00"	BATOX
TINTO		69	44	N41°28'41.00" E011°04'04.00"	TINTO
VALMA		70	17	N41°34'36.00" E011°25'18.00"	VALMA
LIRA		75	54	N41°47'57.70" E012°35'41.77"	CIAMPINO

Headings are magnetic, distances are in nautical miles.

LEPA SID MORSS UM603 ALG UL5 VALMA STAR LIRA

Store this flight plan as active (for later save/export/charting)

By using the "Store" button you set the displayed route as the "active" flight plan. Once the route is stored as active, you can use it in the "Charting" section or "Export FPL" section. (Future versions of the system software will allow saving several routes and recalling them at wish)

After this brief overview, let's see how each parameter has influence on the generated route.

The basic options

It is necessary to indicate at least the ICAO location indicators of the departure and arrival airports, in the two fields "**Fix ID / Airport ICAO ID**".

RouteFinder can find a routing between any two officially designated aeronautical 'points'. Such 'points' (also called 'fixes' in our context) may be either:

- **Airports**, identified by 4-letters ICAO location indicators (e.g. LIRF, EGLL, KJFK)
- **Navigation aids** (VOR, NDB, TACAN ...), identified by 2, 3, or 4-letters codes
- **Waypoints** (Intersections) usually identified by 5-letters codes

Airport location indicators are unique worldwide, so you can safely disregard entering the "country code" when your starting/ending fixes are airports.

However, navigation aids and intersections may have duplicate identifiers (for example, "**BOL**" may be **Bolsena VOR/TAC** in Italy or **Bolinda NDB** in Australia). In such case the system needs that you indicate the correct ICAO nationality letters (e.g. '**LI**' - Italy, '**YM**' - Australia, also called '**country code**' in RouteFinder) to resolve the ambiguity. If you don't know the correct code, just go ahead and enter only the fix identifier; the system will then propose several alternatives and you can go back and resolve the ambiguity. You can search for the ICAO nationality letters in the "Ref Tables" section of the site.

Once established from where you will depart and where you will arrive, it's time to choose a cruising level. The routing algorithm will focus only on airways that are available in the level range that is specified here. Moreover it's possible to limit the routing only to lower or upper airspace ("Level" parameter).

Usually the altitude range is reduced to a single flight level (e.g.: FL330 to FL330).

Within RouteFinder, altitude may be expressed in the following formats:

- A simple number (11000, 6500) represents AMSL altitude in feet.
- Flight level indication (FL110, FL330).
- Particular values (currently implemented: GND - ground, UNL - unlimited)

Please note that this parameter has a different meaning compared to the "Level" parameter.

Routes are officially designated as belonging to upper airspace, lower airspace or both.

In the USA, high-level airways (jet routes) usually have an identifier starting with '**J**', while lower airways (Victor / VOR airways) start with '**V**'. In Europe, upper airways identifiers are usually prefixed with '**U**'.

Different countries may have different regulations concerning the vertical limit of the lower airspace.

The "Level" setting is usually left to "Both", as the "cruise altitude" setting is enough to automatically select the proper airways using their real vertical limit. However, if you need to exclude the lower or upper airspace for some reason, it is possible to force the auto-routing algorithm to do so.

Advanced options

The following options allow altering the logic used by the system while calculating the route:

Use SID / STAR

These 2 switches selectively enable or disable the use of SID and STAR procedures in the auto-routing process.

The system contains a database of applicable SID/STAR entry/exit points for each airport. At the current stage of implementation no reference is made to specific procedures; instead, the system just considers which fixes can be considered proper exits (when departing from an airport) or proper entries (when arriving at an airport).

The auto-routing algorithm considers all the exits (SID endpoints) from the departure airports and all the entries (STAR starting points) to the arrival airport; then, the best exit/entry pair is chosen (depending basically on the location of the destination airport in relation to the departure, and the availability of routes in between).

Sometimes the system can't find a good routing (mostly because the SID/STAR database is still being fine-tuned), so it may be worth trying to disable the SID and/or STAR switches.

In this case the system tries to find two appropriate fixes, the first near the departure and the second near the arrival, which will function as entry/exit into/from the cruise phase. The transition to/from these fixed is noted as "DCT" ("direct to") in the generated flight plan. (This is also sometimes a real world practice).

Please note that the auto-generated flight plan does not include the detailed description of SID and STAR procedures; it only gives an indication of which SID/STAR procedures you should fly.

Anyway, when planning a flight, you usually don't know from which runway you will take off, or on which runway you will land, and SID/STAR procedures are different for each runway.

Ease transitions

Usually the option "Ease transitions" is left disabled (unchecked).

The auto-routing algorithm always stays at the flight level (altitude) assigned when selecting the airway segments to be crossed. However in some cases SID/STAR procedures do not connect fixes which are part of an airway at the requested altitude, and the system finds a "discontinuity" which does not permit to find any route between the requested departure and destination.

In such case it may help to set the parameter "Ease transitions", which will withdraw the vertical limits of airway segments ending/beginning on a SID/STAR endpoint at the departure/arrival airport. This effectively eliminates the discontinuity, but may also lead to unrealistic results. In extreme cases, when the system can't find a routing even with this option enabled, you may consider switching off the SID and/or STAR option.

RNAV equipped

Some airways are officially designated as "RNAV". To be able to fly through these routes, your aircraft must be properly equipped (e.g. it should be able to maintain an higher navigation accuracy). Unchecking this option instructs the auto-routing algorithm to avoid RNAV routes.

TACAN routes

The Routefinder database contains some additional routes designated as "TACAN ROUTES" (military). If the corresponding option is active, the auto-routing subsystem will consider such routes. The default action is to exclude them.

NAT routes

There are special routes used when crossing the Atlantic. These routes change daily depending mainly on weather (winds aloft). The auto-routing algorithm may be instructed to act differently in relation to North Atlantic Tracks, depending on the value of the "NATs" option:

Disabled - Ignore north atlantic tracks completely.

Real-world - Use daily-updated tracks from real world

VATSIM - Use simplified tracks as published on VATSIM site (they are changed once a month)

The system will choose the most appropriate NAT track depending on the requested route. Such tracks are indicated in the flight plan as NAT-A, NAT-B, NAT-X, NAT-Y, and so on.

Warn for restrictions

Not all airway segments are available at all times and to all aircraft.

RouteFinder uses a constantly updated database of restrictions for Europe, as defined by Eurocontrol.

There are different types of restrictions:

- **RAD** (Route Availability Document) - quoting from the RAD introduction:
The RAD is a sole-source-planning document that combines AIP Route Flow Restrictions with ATFM routeing requirements designed to make the most effective use of ATC capacity. The RAD is finalized during the ATFM strategic planning process organised by the EUROCONTROL Central Flow Management Unit (CFMU).
- **CDR** (Conditional routes) - Each state publishes in its AIP (Aeronautical Information Publication) the conditions under which some airway segments are made available or unavailable. Quoting from the EATCHIP ASM Handbook (Eurocontrol):
A Conditional Route (CDR) is a non-permanent ATS route or a portion thereof, which can be planned and used only under certain specified conditions.
Such route segments are categorized into:
 - **CDR 1** - Permanently plannable CDR during the times published in AIPs
Available most of the times, not available on specific conditions (e.g. activation of a military training zone)
 - **CDR 2** - Non-permanently plannable CDR
Available on specific conditions such as facilitating traffic flow and increasing ATC capacity
 - **CDR 3** - Not plannable CDR
Available on short notice, useable only on ATC instructions

The availability (CDR2) or unavailability (CDR1) of routes is reported in the **CRAM** (Conditional Route Allocation Message), published daily by the Eurocontrol CFMU.

RouteFinder implements the following scheme to consider those restrictions:

- When options **RAD**, **CDR** and **CRAM** are disabled, the restrictions are ignored and not reported.
- When options **RAD** and/or **CDR** are enabled, after the auto-routing process the system generates a report of restrictions that are potentially applicable to the computed route.
- If **CRAM** option is enabled, the CRAM message currently in force is checked against the flight plan, and the report is completed with the indication "**currently CLOSED**" or "**currently OPEN**" if such information is available and applicable to the flight plan.
- Moreover, for convenience, CDR2 routes are pre-selected for exclusion, unless the current CRAM reports them as OPEN. Similarly, CDR1 routes are pre-selected for exclusion when CRAM reports them as CLOSED. CDR3 routes are always pre-selected for exclusion.
- The user can interactively decide to exclude the flight plan segments which have applicable restrictions (For example "Not available between FL300 and FL390" - should be excluded if the flight plan will be filed for FL330)

- If any segments used in the flight plan are to be excluded, it is possible to ask the system for another route, avoiding the excluded segments (**Reroute** button)

RAD/CDR restriction analysis:			
Route segment	Rest. type	Details	Exclude?
UM603 DORAD-ALG	RAD	Not available for traffic Dest. Rome CTR Above FL345	<input type="checkbox"/>
UM603 MORSS-DORAD	RAD	Only available for traffic Via ALG	<input type="checkbox"/>

Apply restrictions:

Reroute

By using an interactive process it is possible to determine a routing which will pass the Eurocontrol Flight Plan Validation most of the times.

However, compulsory RAD routings are not yet implemented, so ignore them for now.

Custom restrictions

The text area "User defined routing restrictions" can be filled using a particular notation, which will explain to the system which airways you DO NOT want to cross.

User-defined restrictions shall be entered in the format:

```
airway(startfix-endfix)
```

... where "airway" is the identification of the airway, "startfix" is the starting point of the segment to ignore, "endfix" is the last point of the segment.

For example:

```
UL995 (TZO-FRZ) - Exclude segments of airway UL995 from TZO (Trezzo VOR/DME) to FRZ (Firenze VOR/TAC)
```

Multiple restrictions may be specified:

```
A1 (TOP-ADISO) UM729 (TONDA-GEN) - Exclude selected segments of airway A1 and UM729
```

It is also possible to enter restrictions manually after the routing has been generated, which helps if you really don't want to fly the suggested route.

It is planned to add a "Route through..." option, which will allow the user to obtain a flight plan which goes through the specified airway segments, while maintaining the convenience of the auto-routing for the rest of the flight plan.

Route editing (NOT IMPLEMENTED YET)

Not implemented in the current system version.

RouteFinder flight plan editor

Route editor not yet operative.

Edit waypoint
Fix: ICAO region: Type:
 (Update route) (Remove from flight plan)

(Details about this fix) (New fix before this one)

Fix	Crs	Dist	Via
LEPA	PALMA DE MALLORCA		SID
MORSS	MORSS		UM603
RIPAL	RIPAL		UM603
DORAD	DORAD		UM603
ALG	ALGHERO		UL5
MINKA	MINKA		UL5
POZZO	POZZO		UL5
TALIN	TALIN		UL5
BATOX	BATOX		UL5
TINTO	TINTO		UL5
VALMA	VALMA		STAR
LIRA	CIAMPINO		

Flight plan export

Once the user session contains an active flight plan, it is possible to export it to several formats so that it will be possible to have it automatically loaded into the FMS once on board the aircraft.

Currently the following formats are available:

Format	Remarks
Plain Text	Generates a text file containing the summary of the flight plan.
SquawkBox	Tested - OK
Flight Simulator 2002 and 2004	Tested - OK
FSNavigator 3.x and 4.x	Tested - OK
PMDG 737	Tested - OK
X-Plane 7.30	Tested - OK (May work with other versions too, but not tested)
Wilco's 767 "Pilot in command"	Tested - OK

To export the current flight plan and receive the route file, just press the appropriate button in the "Export FPL" section.

The system will respond by sending the route file to your browser, which will prompt you to start the download.

Note: Some firewall programs and/or Internet Explorer settings may prevent the download to happen. Check your browser settings in case you are experiencing difficulties with this functionality.

Charting

The charting module (based on ASA's product "AvioView") offers a graphical representation of the aeronautical database. Charts are generated on the fly in SVG format (Scalable Vector Graphics).

Important: You need to install the **"Adobe SVG Viewer plugin 3.0"** to be able to use this feature of the system. Other SVG plugins may not work, and the Adobe SVG Viewer 6.0 beta version is known to work only partially. Please visit <http://www.adobe.com/svg> for information.

RouteFinder Charting Subsystem

Map centering and extension:

Window Min
 Center/Range Max
 Fix/Range Specify limits of display area, or draw rectangle on preview
 Active Route

Vertical limits: From GND to UNL ft
Level: Low/Lower scale: 1:750 000

Display distances in Nm

Auto calculate airway headings and distances
 Display airway details
 Popup labels Link to DB
 Geogrid MORA Display active flightplan

AD/HP: Airports Heliports
Airspace: FIR TMA CTR ATZ
Restrictions: PRD MTW SG EL F
IFR: NAV WPT AWY
Other: Towns Coastlines

Do not display - Send as SVG file

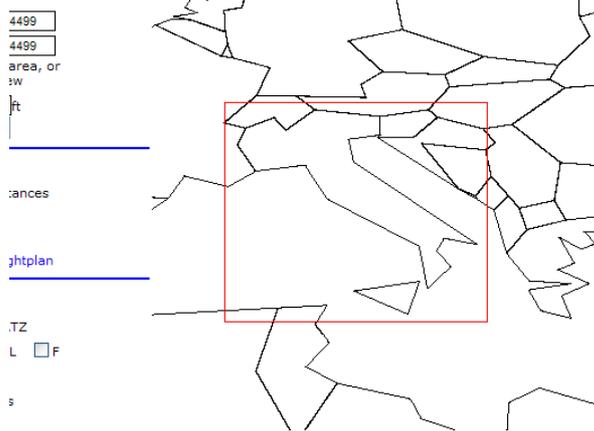
On the left are the chart generation options, while on the right we have a rough preview of the World that may be used to select the area to display using the mouse. Please note that this preview is static (does not display information).

Maps are generated using the Lambert Conformal Conic projection, with cutting parallels set 20 degrees above and under the latitude on which the chart is centered. The reference meridian has the same longitude of the map center. The ellipsoid used is WGS84.

Example – creating an enroute chart for Italy

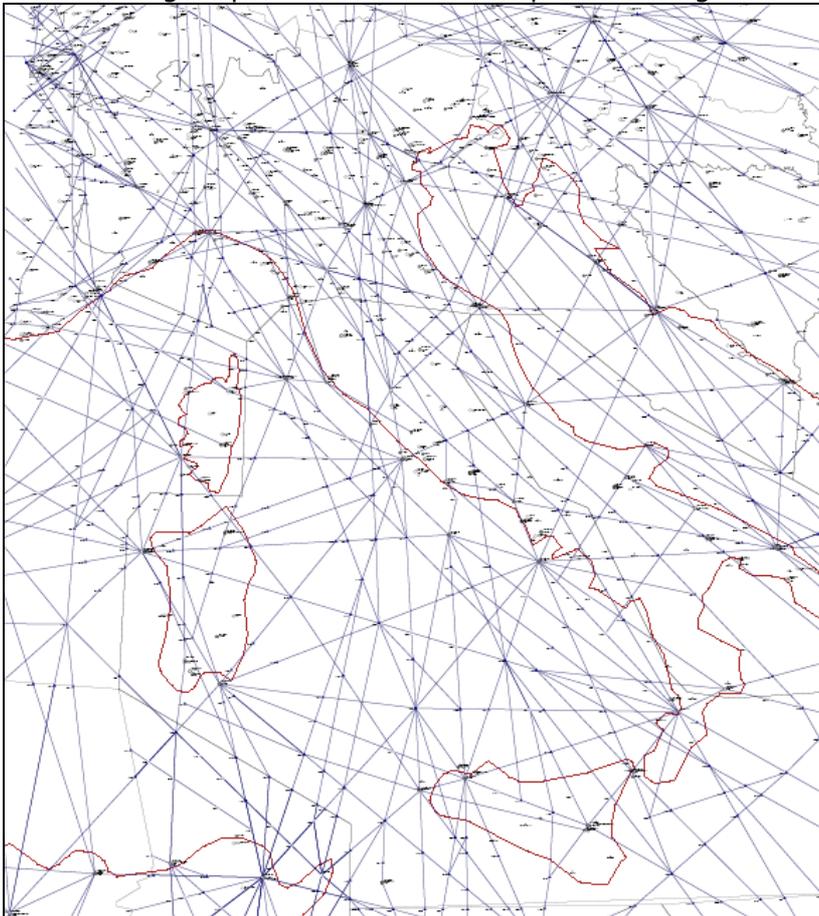
- a) Zoom into the preview by holding the "CTRL" key and clicking on the desired spot. (you can also draw a zoom rectangle by "click-and-drag")

- b) Mark the area of interest by drawing a rectangle around Italy (click-and-drag; the rectangle will be red).



- c) Ensure that under "Map centering and extension" the option "Window" is selected. Note that the limit coordinates have been filled in automatically when you drawn the red rectangle.
d) Select the level: "High/Upper"
e) Click on "Generate map"

A new browser window will open and after a brief time the map will begin to be displayed. The SVG plugin will begin to display the data as it is still being received from the server. The resulting map can be zoomed and panned using the SVG Viewer commands.



See the chapter "Quick-start guide to SVG" for some quick tips about the SVG Viewer.

Charting options / parameters

Map centering and extension

The charting subsystem needs to know the exact extension of the map before generating it. The four options are:

- **Window** - The extension of the chart is defined by four values, arranged as following:
Minimum latitude, minimum longitude
Maximum latitude, maximum longitude
 - You may enter the values directly, one for each input box, for example:
N35 E004
N48 E021
 - Or you may draw a rectangle by click-and-dragging the mouse on the preview shown on the right
- **Center/Range** - The chart is centered on a specified point (latitude, longitude) and shows an area within the specified range from the center.
Center point may be entered manually (e.g. N42 E012) or indicated with a single mouse click on the preview.
- **Fix/Range** - The chart is centered on a specified fix (airport, navaid, waypoint) and shows an area within the specified range from the center.
The fix may be specified as:
 - An airport (e.g.: LIRF, EGLL, KJFK)
 - A radio aid (e.g.: OST, BPK, JFK) optionally with an ICAO country code (LI - Italy, EG - England, ...) to help the system distinguish between radioaids with the same identification in different countries
 - A waypoint/intersection (e.g.: TIBER, BODAN, ADISO), also optionally with an ICAO country code to resolve ambiguities (e.g. if there is more than one fix with the same identification)
- **Active Route** - The map limits are automatically determined to include the route that is active in the current RouteFinder session. If there is no active route, the results are undefined.
To actually see the route you need also to activate the option "Display active flightplan" (this is done automatically for you whenever you select "Active route" centering option).

Vertical limits

Airspaces and airways will be included in the generated chart only if their vertical limits are compatible with those entered in this parameter. The default is to show everything (from GND - ground to UNL - unlimited).

Vertical limits may be specified in feet or flight levels (e.g. FL180)

Level

Airspaces and routes are classified as belonging to upper airspace, lower airspace or both. This option allows selection of which objects (airspaces and routes) will appear on the generated chart depending on the airspace level they belong to.

Please note that this option interacts with the Vertical Limits parameter. If you select "low/lower" lever and vertical limits between FL330 and FL390, it is very unlikely that you will see airways on the generated map. On the contrary, you will perhaps see some airspace, as many of them have extended vertical limits (for example GND-UNL, ground to unlimited - especially prohibited, restricted or danger areas)

Scale

The chart is generated using millimeters as drawing units (an unit on the generated SVG represents a printed millimeter). The symbols have fixed size. Changing the scale has the visual effect of changing the size of the symbols compared to the distances represented. When the PDF output option will be implemented, the indicated scale will represent the actual scale when the chart is printed.

The default scale (1:750000) works quite good to represent a country like Italy without having too much clutter once you zoom in to a level that allows the labels to be readable.

The best use of the option is to experiment starting from the default value, until you get a good compromise depending on the area you want to represent.

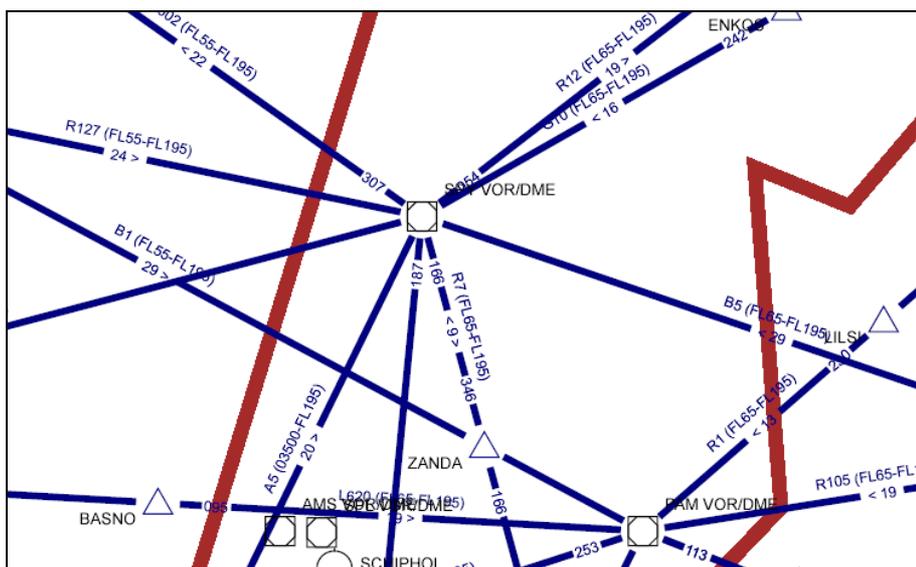
Distances (Nm/Km)

Distances displayed on the airway segments may be expressed in Nautical Miles or Kilometers.

Display airway details

To minimize the download size of the generated chart and declutter the view, the airway segments are drawn as simple lines.

However this parameters permits to obtain all the details related to each airway segment: route identifier, vertical limits, bearings and distances.

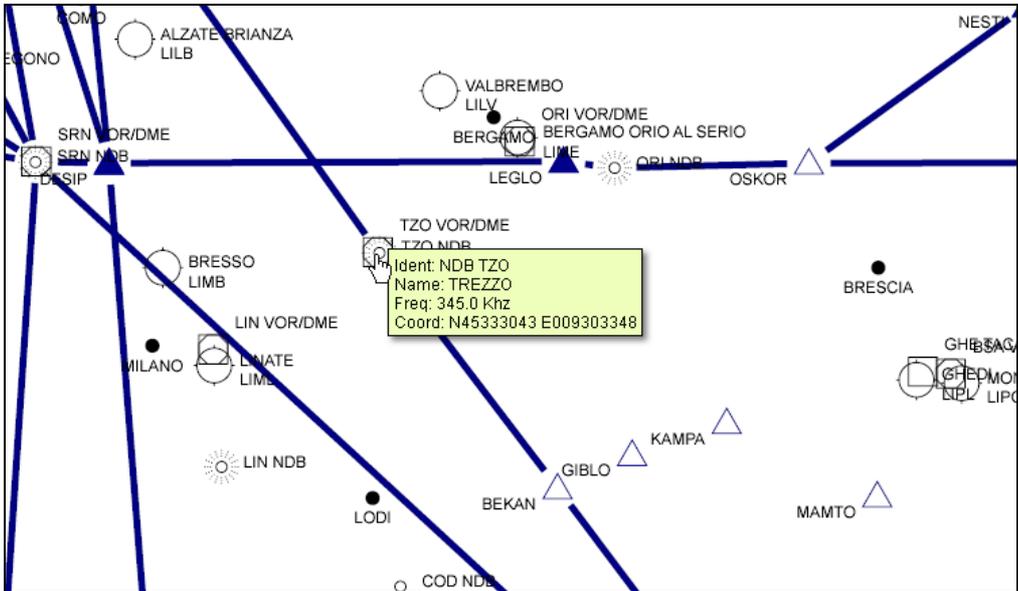


Note that it is possible to obtain more data by clicking on any displayed feature, when the "Link to DB" option is active, or by hovering the mouse on an object, when the "Popup Labels" option is activated.

Popup labels

When this option is activated, the generated chart contains embedded information about what is displayed on the map. Hovering the mouse on any displayed feature will trigger the display of a window containing more information on the selected object (airspace, fix, airport, airway segment).

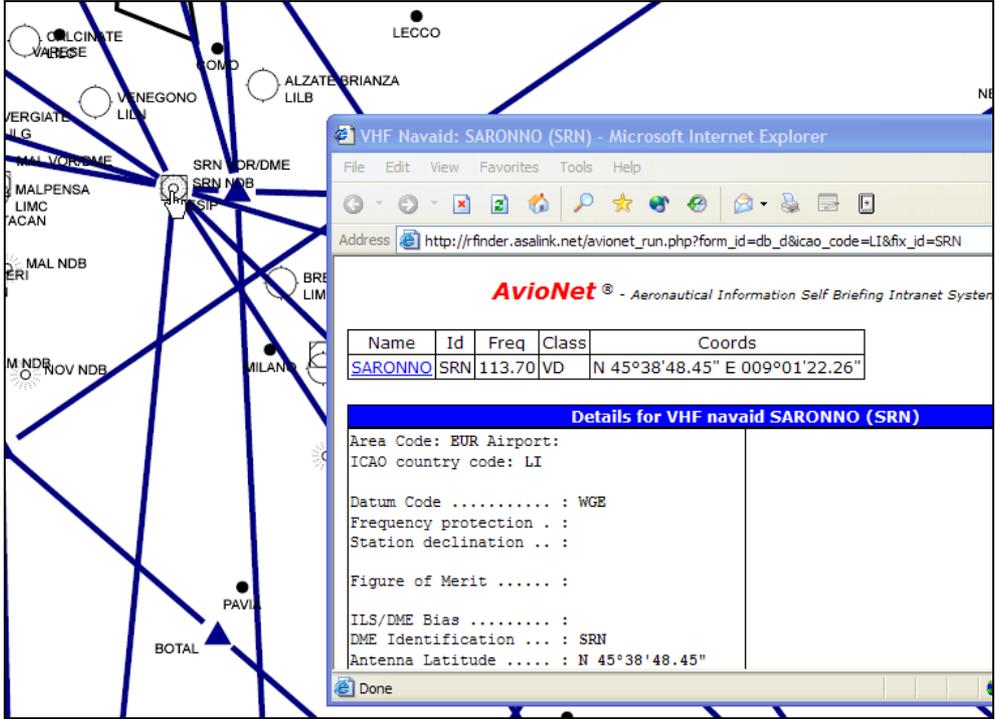
Please note that this option adds considerable overhead on the download size of the generated chart.



Link to DB

When this option is activated, the generated chart contains hyperlinks to the online database, so that it is possible to click on any displayed feature to obtain a detailed report. These reports are the same that can be generated in the "Database" section of the system.

Please note that this option adds considerable overhead on the download size of the generated chart.

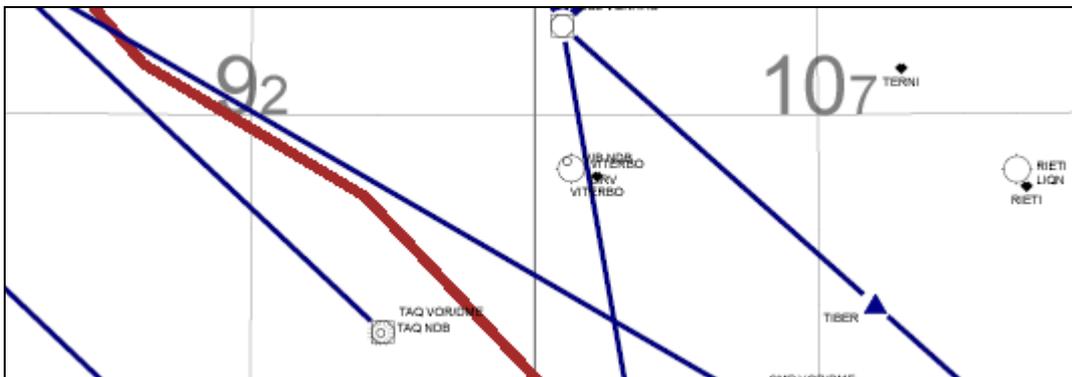


Geogrid

This option displays meridians and parallels on the map at half-degree interval.

MORA

MORA option displays the Minimum Off-Route Altitude on the map for each latitude/longitude degree square (Option "Geogrid" must be activated too). These altitudes are displayed as thousands of feet (big number) and hundreds (small number).



Display active flightplan

With this option active, the charting subsystem plots the currently active route on the generated map.

The following features are displayed:

- Departure airport - highlighted with a blue circle
- Arrival airport - highlighted with a blue circle
- Enroute part of flight plan - highlighted with a magenta strip centered on the route path.

Note that (for the moment) no SID/STAR are displayed, and also the path joining the departure/destination airport with the route is not displayed. This is intentional, because a later update of the software will display all the procedures at the departure and arrival airport, graphically joining the airports with the enroute part of the flight plan.

This option is usually used in conjunction with the "Active Route" centering option, so that the chart limits are automatically determined to fit the active route on the display; however you may still select different display limits, for example if you are planning a long-haul flight and are interested only in the departure and destination area.

Choosing which information layers to display

Feature	Remarks
Airports	
Heliports	Very sparse data is currently available
FIR	
TMA, CTR, ATZ	Displayed in blue
PRD	Protected, Restricted, Dangerous areas (red)
MTW	Military, TSA, Warning areas (red)
SG	Parachuting (S), Aerobatic / Training (G) areas
EL	Sensitive (E), Low level overflying interdiction (L) areas
F	Military firing areas (red)
NAV	Navigation aids
WPT	Intersections / Waypoints
AWY	Airways
Towns	shows main cities (available only for Italy at this moment)
Coastlines	Currently available with low detail

Saving the map on your local disk

The option "Send as SVG file" prevents the chart from being displayed inside the browser, and sends it directly to you as a file download.

When downloading the map using this option, the map size limit is withdrawn.

Database

All other modules depend on the data stored in RouteFinder's database, which is built upon ASA's "AvioData" database structure, developed following the ARINC 424 specification as a guideline.

The database is designed to work with two types of aeronautical data:

- Static data – Any information which may change with AIRAC periodicity (28 days) but remains stable within this time frame (airways, radio aids, airports, runways, ...)
- Dynamic data – Information which are subject to frequent changes (NOTAM, CRAM messages, METEO information, ...)

Static data

- Airports
 - ARP – Aerodrome Reference Point
 - Geographical data *
 - Available services *
 - Runway information
 - Communication facilities
 - Radio aids (ILS)
- VHF nav aids (VOR/DME/TACAN)
- NDB nav aids
- Airway intersections / waypoints
- FIR/UIR airspace
- PRD airspace
- Other restrictions (Sensitive areas *, Firing areas *, Aerobatic/Training areas *, Parachuting areas)
- Airways
- TMA, CTR, ATZ *
- Eurocontrol CDR route catalog **, RAD route availability **

Dynamic data

- NOTAM messages (updated at least weekly)
- Daily CRAM message **
- Twice-daily North Atlantic Tracks (NAT) messages **

Note: Items marked with an asterisk (*) are only available for Italian airspace at this moment. Items marked with a double asterisk (**) are received, processed and used by the system, but currently not directly browseable by the user

The AvioData database (and thus, the RouteFinder database) inherits some peculiar characteristics from the ARINC 424 standard, so that most records are classified by:

- Area code (see appendix A)
- 2-letter ICAO region (see "Reference Tables" section), also indicated as "ICAO code" or "ICAO Nationality Letters" (not to be confused with the 4-letter "ICAO location indicator")

How to query the database

Enter the database environment by clicking on the "Database" link on the left of the screen.

On the top of the browser window you will see a compact menu:

RouteFinder database query - Static data release: 0312 (27 NOV 2003 - 24 DEC 2003)
[\[Airport\]](#) [\[VOR/DME\]](#) [\[NDB\]](#) [\[WPT\]](#) [\[FIR\]](#) [\[PRD\]](#) [\[Other rest\]](#) [\[AWY\]](#) [\[TMA/CTR/ATZ\]](#)

Each of the links (Airport, VOR/DME, ...) will display a gray bar (containing the available search fields) just under the menu, with different content depending on the section of the database you are accessing.

Fill one or more search fields and press the "Submit" button to obtain the information.

The RouteFinder database query works following these principles:

- If more than one entity match the search criteria, the user will be provided with a list from which it is possible to select the exact information to be displayed;
- If only one entity matches, it will be shown directly in detail.

Usually it is necessary to fill at least one field to search the database.

Each database section is described below:

Airport information

ICAO Loc ind: Name: Area: Ctry: (ICAO)

You may search an airport by specifying its 4-letters ICAO location indicator, a part of the name, the geographical area, or the 2-letters ICAO region.

If more than an airport is found matching the specified criteria, a list is displayed:

ICAO Loc ind: Name: Area: Ctry: (ICAO)

AvioNet® - Aeronautical Information Self Briefing Intranet System

[CYSU](#) SUMMERSIDE N46261300 W063493200
[EGNJ](#) HUMBERSIDE N53342800 W000210300
[EGNY](#) TEESIDE N54303308 W001254586
[FAMS](#) MORNINGSIDE FARM S25415000 E026544100
[KRAL](#) RIVERSIDE MUMI N33570675 W117264237
[SAZN](#) PRESIDENTE PERON S38565640 W068092056
[SEBR](#) PRESIDENTE JUSCELINO KUBITSCHKE S15514530 W047544560
[SDN](#) PRESIDENTE PRUDENTE S22103020 W051252870
[SBJP](#) PRESIDENTE CASTRO PINTO S07085417 W034570245
[SEBR](#) PRESIDENTE MEDICI S09520897 W067533866
[SURV](#) PRESIDENTE GENERAL DON OSCAR D S30582845 W055283428
[UPDL](#) PRESIDENTE NICOLAU LOBATO INTL S08324759 E125312899

12 records found.

In this example the operator entered part of the name and the system displayed the matching records.

By clicking on the ICAO location indicators it is possible to access the detailed information about the chosen airport.

Alternatively if the search fields match one and only one airport, the detailed information are shown at once:

ICAO Loc ind: Name: Area: Ctry: (ICAO)

AvioNet® - Aeronautical Information Self Briefing Intranet System

[LIRF](#) FIUMICINO N41481611 E012150287

Aerodrome information report
LIRF - FIUMICINO

Quicklinks: [Geodata](#) [Op.Hours](#) [Handling](#) [PaxServices](#) [Rescue/Fire](#) [Clearing](#) [Surfaces](#) [Markings](#) [Obstacles](#) [Meteo](#) [Runways](#)
[Distances](#) [Lighting](#) [Aux.Lighting](#) [Heliport](#) [Communications](#) [Radio aids](#)

Related queries: [NOTAMS](#)

Location Indicator: Name:

Section 2: Geographical and Administrative data

ARP: N41481611 E012150287 Site: See AD chart AGA 2-41.5 Town: 18.9 NM WSW from Rome	Elevation: 00015 ft Magnetic Variation: 1.5 E (year: 2003) Annual change: +0.5	Reference temperature: 28,3 C
Aerodrome administration: ENAC (Civil Aviation Authority) "Leonardo da Vinci" 00050 FIUMICINO Phone: +39 06 65010024 AFTN: LIRFYDYX	Traffic Type: INTERNATIONAL COMMERCIAL AIR TRANSPORT Civil/Military: C Remarks:	

Remarks:

Section 3: Operational Hours

Service	Service hours	Remarks	Administration
AD Administration	(H 0800-1800)		ENAC (Civil Aviation Authority) "Leonardo da Vinci" 00050 FIUMICINO Phone: +39 06 65956030
AD Operator	H24		Aeroporti di Roma S.p.A. "Leonardo da Vinci" 00050 FIUMICINO Phone: +39 06 65951
			ENAV

Note that it is possible to jump to the NOTAM section and directly display the active NOTAM messages related to the airport.

The "quicklinks" allow scrolling directly to the individual sections of the report page.

VHF Nav aids (VOR/DME/TACAN)

Information about VHF navigation aids can be obtained from this section.

VOR/DME ID: Name: Area: Ctry:

AvioNet® - Aeronautical Information Self Briefing Intranet System

Name	Id	Freq	Class	Coords
KENNEDY	JFK	115.90	VD	N 40°37'58.40" W 073°46'17.00"
KENNEDY SPACE CENTER	TTS	112.25	T	N 28°37'34.20" W 080°41'45.00"

2 records found.

Details for VHF navaid KENNEDY (JFK)

Area Code: **PAC** Airport: [KJFK](#)
 ICAO country code: **KZ**

Datum Code : **WGE**
 Frequency protection . :
 Station declination .. :
 Figure of Merit :

ILS/DME Bias :
 DME Identification ... : **JFK**
 Antenna Latitude : **N 40°37'58.40"**
 Longitude : **W 073°46'17.00"**
 Elevation :

MAP datum code: **WGE**

Crossing airways: [A300](#) [A523](#) [J146](#) [J222](#) [J225](#) [J37](#) [J63](#) [J70](#) [J79](#) [V1](#) [V16](#) [V229](#)

NDB Nav aids

NDB ID: Name: Area: Ctry: (ICAO)

AvioNet® - Aeronautical Information Self Briefing Intranet System

Name	Class	Variation	Ident	Frequency (MHz)	Coordinates
AMALIAS	H	2.8 E	AML	367.0	N 37°46'29.00" E 021°20'48.00"
ASTYPALAJA	H	3.2 E	KHZ	422.0	N 36°44'43.38" E 026°22'31.02"
FISKA	H M	3.3 E	FIS	314.0	N 41°05'55.00" E 022°59'30.00"
KARPATHOS	H	3.2 E	KRC	314.0	N 35°25'11.30" E 027°09'00.12"
KASTORIA	H	3.0 E	KSO	372.0	N 40°26'41.00" E 021°16'46.00"
KAVOURI	H M	3.1 E	KVR	357.0	N 37°48'51.00" E 023°45'34.00"
KORINTHOS	H M	3.0 E	KOR	392.0	N 37°55'56.00" E 022°55'58.00"
KOS	H	3.3 E	KOS	311.0	N 36°47'43.00" E 027°05'28.00"
LARISA	H M	3.1 E	LSA	362.0	N 39°38'43.51" E 022°27'41.59"
PAROS	H M	3.1 E	PAO	386.0	N 37°00'45.37" E 025°07'43.91"
SAMOS	H	3.4 E	SMO	375.0	N 37°41'07.00" E 026°55'00.00"
SOUDA	H	2.9 E	SUD	409.0	N 35°31'15.00" E 024°09'08.00"
SOUNION	H M	3.1 E	SUN	319.0	N 37°40'05.00" E 024°02'42.00"
SYROS	H M	3.1 E	SYR	417.0	N 37°25'17.40" E 024°56'51.88"
TANAGRA	H M	3.1 E	TNG	303.0	N 38°19'56.00" E 023°43'51.00"
THESSALONIKI	H M	3.2 E	THS	345.0	N 40°35'33.00" E 022°56'52.00"
THIRA	H	3.1 E	THR	307.0	N 36°24'00.00" E 025°28'49.00"

17 records found.

WPT (Waypoints, Airway intersections)

Waypoint ID: Name: Area: Ctry: (ICAO)

AvioNet® - Aeronautical Information Self Briefing Intranet System

Name	ID	Coordinates
JUDDS	JUDDS	N 41°38'05.04" W 073°06'20.74"

Details for IFR waypoint JUDDS (JUDDS)

Region code: **KZBW** Magnetic Variation: **14.3 W**

Airways: [J75](#) [V167](#) [V419](#) [V58](#)

FIR/UIR airspace

FIR ID: Name: Ctry: (ICAO)

AvioNet® - Aeronautical Information Self Briefing Intranet System

FIR ID	FIR/UIR	Name	FIR upper limit (ft)	UIR lower limit (ft)	UIR upper limit (ft)
LIRR	F	ROMA FIR	FL195		

Details for FIR ROMA FIR (LIRR)

Boundary description: N431000 E0094500 - N433500 E0101800 - N434300 E0111000 - N433100 E0132000 - N425500 E0130500 - N412700 E0142300 - N411200 E0150700 - N391400 E0161500 - N385900 E0163100 - N385300 E0171000 - N385300 E0190000 - N363000 E0190000 - N363000 E0113000 - N373000 E0113000 - N390000 E0080000 - N410000 E0080000 - N412000 E0082000 - N412000 E0094500

PRD zones (protected, restricted, dangerous)

Rest ID: Name: Ctry: (ICAO)

AvioNet® - Aeronautical Information Self Briefing Intranet System

ICAO Code	Type	Designation	M	Name	Low limit (ft)	High limit (ft)
LI	D	LID30		CHIANTI	01500 AMSL	FL080

Details for danger area CHIANTI (D LID30)

Activity : ATTIVITA' AVIOGETTI MILITARI
 SVC Hours: NOTAM
 Remarks : REQ GROSSETO APP
Boundary description: N433000 E0114000 - N425200 E0120900 - N424200 E0114400 - N431600 E0111900 - N432300 E0112200

Other restricted zones

Additional zones which are not published as P/R/D.

AWY (Airways)

Route ID: Fix ID: Ctry: (ICAO)

AvioNet® - Aeronautical Information Self Briefing Intranet System

Route ID
J28

Significant points and coordinates	Mag. Track	Distance	Vert. Limits (ft/fl)	Remarks
Δ ICT (VHF) WICHITA N37444292 W097350179				
	268 088	42 nm 77 km	FL450 FL180	
Δ KYLER (IFR WPT) KYLER N37480689 W098271979				
	262 082	108 nm 200 km	FL450 FL180	
Δ GCK (VHF) GARDEN CITY N37550864 W100433030				
	267 083	177 nm 328 km	FL450 FL180	
Δ PUB (VHF) PUEBLO N38173931 W104254599				
	262 085	10 nm 19 km	FL450 FL180	
Δ FSHER (IFR WPT) FSHER N38183488 W104385114				
	265 083	80 nm 149 km	FL450 FL180	
Δ ELWAY (IFR WPT) ELWAY N38245662 W106203520				

TMA / CTR / ATZ airspace

CTR ID: Name: Ctry: (ICAO)

AvioNet® - Aeronautical Information Self Briefing Intranet System

Icao Code	Airspace type	Identification	M	Name	Lower limit (ft)	Upper limit (ft)
LI	CTR	LIBA	0	AMENDOLA ZONE 1 CTLZ	GND	FL105
LI	CTR	LIBB	0	AMENDOLA ZONE 2 CTLZ	01000 AGL	FL205
LI	CTR	LIBB	1	PESCARA ZONE 1 CTLZ	GND	04500 AMSL
LI	CTR	LIBB	2	PESCARA ZONE 2 CTLZ	02000 AGL	FL115
LI	CTR	LIBD	0	BARI ZONE 1 CTLZ	GND	02000 AMSL
LI	CTR	LIBD	1	BARI ZONE 2 CTLZ	02000 AMSL	FL085
LI	CTR	LIBD	2	BARI ZONE 3 CTLZ	04000 AMSL	FL085
LI	CTR	LIBG	0	GROTTAGLIE ZONE 1 CTLZ	GND	FL065
LI	CTR	LIBG	1	GROTTAGLIE ZONE 2 CTLZ	FL065	FL100
LI	CTR	LIBR	0	BRINDISI ZONE 1 CTLZ	GND	01500 AGL
LI	CTR	LIBR	1	BRINDISI ZONE 2 CTLZ	01500 AGL	FL065
LI	CTR	LIBV	0	GIOIA DEL COLLE ZONE 1 CTLZ	GND	FL085
LI	CTR	LIBV	1	GIOIA DEL COLLE ZONE 2 CTLZ	GND	FL225
LI	CTR	LIBV	2	GIOIA DEL COLLE ZONE 3 CTLZ	03000 AMSL	FL085
LI	CTR	LICA	0	LAMEZIA ZONE 1 CTLZ	GND	FL095
LI	CTR	LICA	1	LAMEZIA ZONE 2 CTLZ	02000 AMSL	FL095
LI	CTR	LICA	2	LAMEZIA ZONE 3 CTLZ	03000 AMSL	FL095
LI	CTR	LICC	0	CATANIA ZONE 1 CTLZ	01500 AGL	FL215
LI	CTR	LICC	1	CATANIA ZONE 2 CTLZ	GND	01500 AMSL

NOTAM Section

The RouteFinder system contains a NOTAM database that is updated more or less once a week; the coverage is almost worldwide.

The NOTAM messages in this database have real-world origin, but they absolutely must not be used when planning a real flight.

While it is possible to argue if it makes sense or not to use real-world NOTAM in a simulated environment, we thought it might be an interesting feature to include in our system. Virtual Airline pilots may find new challenges as they find out, for example, that they need to use an alternate procedure because a runway, navaid or service at the destination airport is temporarily unserviceable. (of course it won't be out of service in the simulator, but good fantasy is the base of our hobby anyway!)

NOTAM messages will be displayed according the selection criteria specified in the form fields.

Country code (ICAO)

Select by two-letters ICAO nationality letter (e.g. LI – Italy, EG – England).

FIR

Select by four-letters FIR identifier (e.g. LIRR – Rome FIR, EBBU – Belgium FIR)

RouteFinder NOTAM inquiry

Country code: (ICAO) FIR: Aerodrome:

Series/Number: Q...

Validity from: to: (YYMMDDhhmm)

Search for text:

Purpose: N B O M Scope: A E W

Traffic type: IFR VFR

AvioNet® - Aeronautical Information Self Briefing Intranet System

A0390/97 NOTAMR A3591/94 19990923
[LIRR](#) / QNSLW / IV / M / W / 000 / 120 / 3636N01141E001
A) [LIRR](#) B) 9701301306 C) 9705312359EST D)
E) WARNING. HEL ACT 1NM RADIUS AROUND 3636N 1141E /18NM SW PANTELLERIA/ DUE TO OFFSHORE FLOATING PRODUCTION AND STORAGE UNIT. CTN DUE TO DANGEROUS CHANGE OF IGNITING GAS ASSOCIATED WITH OIL. F) GND G) FL120)

A1030/04 NOTAMR A7149/02 20040227
[LIRR](#) / QNXAW / V / B / AE / 000 / 999 / 4147N01235E001
A) [LIRA](#) B) 0402271354 C) PERM D)
E) VDF COMPLETELY WITHDRAWN. REF AIP AGA 2-39.7)

A1031/04 NOTAMR A2804/01 20040227
[LIRR](#) / QOBCE / IV / M / A / 000 / 999 / 4147N01235E005
A) [LIRA](#) B) 0402271358 C) PERM D)
E) TWO FRANGIBLE POLES WITH WHITE FLASHING LGT ERRECTED ALONG RWY THR33 WITH FLW CHARACTERISTICS: 1.DISTANCE RWY THR 34.4M RIGHT AND LEFT SIDE FM RCL 2.HGT 1.10M ON THR 33 ELEV 3.ICAO SIGNALS NOT PROVIDED.REF AIP AGA 2-39.7.1)

A1032/04 NOTAMR A4188/02 20040227

Aerodrome

Four-letters ICAO location indicator of an airport

RouteFinder NOTAM inquiry

Country code: (ICAO) FIR: Aerodrome:

Series/Number: Q...

Validity from: to: (YYMMDDhhmm)

Search for text:

Purpose: N B O M Scope: A E W

Traffic type: IFR VFR

AvioNet® - Aeronautical Information Self Briefing Intranet System

A0949/04 NOTAMR A0745/04 20040723
[EBBU](#) / QMRHW / IV / NBO / A / 000 / 999 / 5054N00429E005
A) [EBBR](#) B) 0407230949 C) 0412172259 D)
E) IMPORTANT WIP ON RWY 02/20 AND RWY 07L/25R. DETAILS TO BE FOUND IN SUP 07/2004.)

A1020/04 NOTAMN 20040811
[EBBU](#) / QOBCE / IV / M / A / 000 / 999 / 5054N00429E005
A) [EBBR](#) B) 0408160001 C) PERM D)
E) GROUND RADAR SOUTH 505322N0042949E OBST 82.2M/MSL-18.6M/AGL. ICAO DAY AND NIGHT MARKINGS)

A1264/04 NOTAMR A0765/04 20040930
[EBBU](#) / QSAXX / IV / BO / A / 000 / 999 / 5054N00429E005
A) [EBBR](#) B) 0409300905 C) 0412231400EST D)
E) D-ATIS AVBL ON TRIAL (ARR AND DEP) SUPPORTED INDICATORS ARE A, C, D, E AND T. THE CONTRACT MODE IS AUTOMATICALLY TERMINATED AFTER 60 MIN. THE RCVD INFO SHOULD BE CHECKED WITH VOICE. ANOMALIES SHOULD BE REPORTED VIA FAX 32 2 206 9179. REF AIP BELGIUM AND G.D. OF LUXEMBOURG AD2 EBBR 2.18))

A1265/04 NOTAMR A0786/04 20040930
[EBBU](#) / QSVXX / IV / B / AE / 000 / 999 / 5054N00429E040
A) [EBBR](#) B) 0409300906 C) 0412231400EST D)
E) D-VOLMET AVBL ON TRIAL, SUPPORTED INDICATORS ARE A, C, D, E AND T. THE CONTRACT MODE IS AUTOMATICALLY TERMINATED AFTER 60 MIN. THE RCVD INFO SHOULD BE CHECKED WITH VOICE. ANOMALIES SHOULD BE REPORTED VIA FAX 32 2 206 9179. REF AIP BELGIUM AND G.D. OF

Series/Number

If you are looking for a particular NOTAM message, enter here the exact series and number.

Country code: (ICAO) FIR: Aerodrome:

Series/Number: Q...

Validity from: to: (YYMMDDhhmm)

Search for text:

Purpose: N B O M Scope: A E W

Traffic type: IFR VFR

AvioNet® - Aeronautical Information Self Briefing Intranet System

A1485/04 NOTAMR A3090/03 20040324
[LIMM](#) / QMRXX / IV / NBO / A / 000 / 999 / 4526N00916E005
A) [LIML](#) B) 0403241558 C) 0406242200EST D)
E) RWY STRIP SURFACE NOT REGULAR DUE TO A DRAIN 110M RIGHT RCL RWY36R EXTENDED FM TWY R1 TO R4. REF AIP AGA 2-25.5)

1 records displayed.

“Q...” – Notam qualification – NOTAM code

The 4 letters following the “Q” letter describe the SUBJECT (2 letters) of the NOTAM and the related CONDITION (status) – 2 letters too.

Example:

QMRLC – Closed runway (MR – Runway; LC – Closed)

(To be completed in a future version of the document)

Validity from – to

Use “YYMMDDhhmm” (year, month, day, hour, minute) format to select only NOTAM that are in validity within the specified time frame (UTC).

Fill only the “from” field to obtain NOTAM in validity “at” the requested time.

Partial fields are accepted (e.g. 20050101 – 1st JAN 2005, without time-of-day indication)

Enter “PERM” in “to:” field to list only permanent NOTAM messages.

Country code:	<input type="text"/> (ICAO)	FIR:	<input type="text"/>	Aerodrome:	<input type="text" value="LIRA"/>
Series/Number:	<input type="text"/>	Q..	<input type="text"/>		
Validity from:	<input type="text" value="20050101"/>	to:	<input type="text" value="20050102"/>	(YYMMDDhhmm)	
Search for text:	<input type="text"/>				
Purpose:	<input checked="" type="checkbox"/> N	<input checked="" type="checkbox"/> B	<input checked="" type="checkbox"/> O	<input checked="" type="checkbox"/> M	Scope: <input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> E <input checked="" type="checkbox"/> W
Traffic type:	<input checked="" type="checkbox"/> IFR	<input checked="" type="checkbox"/> VFR	<input type="button" value="Submit"/> <input type="button" value="Reset"/>		

AvioNet® - Aeronautical Information Self Briefing Intranet System

A1030/04 NOTAMR A7149/02 20040227
[LIRR](#) / QNXAW / V / B / AE / 000 / 999 / 4147N01235E001
A) [LIRA](#) B) 0402271354 C) PERM D)
E) VDF COMPLETELY WITHDRAWN. REF AIP AGA 2-39.7)

A1031/04 NOTAMR A2804/01 20040227
[LIRR](#) / QOBCE / IV / M / A / 000 / 999 / 4147N01235E005
A) [LIRA](#) B) 0402271358 C) PERM D)
E) TWO FRANGIBLE POLES WITH WHITE FLASHING LGT ERRECTED ALONG RWY THR33 WITH FLW CHARACTERISTICS: 1.DISTANCE RWY THR 34.4M RIGHT AND LEFT SIDE FM RCL 2.HGT 1.10M ON THR 33 ELEV 3.ICAO SIGNALS NOT PROVIDED.REF AIP AGA 2-39.7.1)

A1032/04 NOTAMR A4188/02 20040227
[LIRR](#) / QLEFX / IV / NBO / A / 000 / 999 / 4147N01235E005
A) [LIRA](#) B) 0402271415 C) PERM D)
E) APCH LGT COMPONENTS TWO FRANGIBLE POLES WITH WHITE FLASHING LGT ERRECTED ALONG RWY THR 15 WITH FLW CHARACTERISTICS: 1.DISTANCE RWY THR 34.4M RIGHT AND LEFT SIDE FM RCL. 2.HGT 1.10M ON THR 15 ELEV. 3.ICAO SGL NOT PROVIDED. REF AIP AGA 2-39.7.1)

A3120/04 NOTAMR A6677/03 20040607
[LIRR](#) / QFAXX / IV / NBO / A / 000 / 999 / 4147N01235E005
A) [LIRA](#) B) 0406071055 C) 0406302359EST D)
E) DISTANCE MARKING RWY 15/33 NOT AVBL. REF AIP AGA 2-39.3.2 ITEM 14)

Search for text

Only NOTAM containing the specified text will be displayed.

Country code:	<input type="text"/> (ICAO)	FIR:	<input type="text"/>	Aerodrome:	<input type="text"/>
Series/Number:	<input type="text"/>	Q...	<input type="text"/>		
Validity from:	<input type="text"/>	to:	<input type="text"/>	(YYMMDDhhmm)	
Search for text:	<input type="text" value="volcanic ash"/>				
Purpose:	<input checked="" type="checkbox"/> N	<input checked="" type="checkbox"/> B	<input checked="" type="checkbox"/> O	<input checked="" type="checkbox"/> M	Scope: <input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> E <input checked="" type="checkbox"/> W
Traffic type:	<input checked="" type="checkbox"/> IFR	<input checked="" type="checkbox"/> VFR	<input type="button" value="Submit"/> <input type="button" value="Reset"/>		

AvioNet® - Aeronautical Information Self Briefing Intranet System

A5175/04 NOTAMR A2445/04 20040914
[LIRR](#) / QACXX / IV / NBO / E / 000 / 999 / 3727N01503E015
A) [LIRR](#) B) 0409141554 C) 0411141700EST D)
E) DUE TO VOLCANIC ASH CLOUD INDETERMINABLE ON ALTITUDE DIRECTION AND/OR DENSITY DUE TO VARIABILITY IN THE METEOROLOGICAL CONDITION ALL FLT WI CATANIA CTR MUST BE CONDUCTED WITH MAX ATTENTION.ALL CREW WILL USE MAX CAUTION TO AVOID ANY CONTACT WITH MENTIONED PHENOMENA.UNEXPECTED VARIATIONS AS PER DIRECTION ALTITUDE AND/OR DENSITY OF THE CLOUD SHOULD BE CAREFULLY CONSIDERED TAKING INTO ACCOUNT PROPER ISSUE SIGMET)

A7143/04 NOTAMR A7136/04 20041216
[LIRR](#) / QWWXX / IV / NBO / W / 000 / 110 / 3745N01500E050
A) [LIRR](#) B) 0412160704 C) 0412161730EST D)
E) CATANIA CTR VOLCANIC ETNA MOUNT 3745N 1500E ACT ALT 10750FT PRESENCE VOLCANIC ASH FROM VOLCANO ETNA NOT OBSERVABLE DUE TO POOR VISIBILITY. REF AIP RAC 4-3-11.2 ITEM 5.3
F)SFC G)10750FT AMSL)

2 records displayed.

Purpose

N = NOTAM selected for the immediate attention of aircraft operators.
B = NOTAM selected for PIB entry
O = Operationally significant NOTAM
M = Miscellaneous

Scope

A = Aerodrome
E = Enroute
W = Warning

Traffic type

Display NOTAM related to IFR and/or VFR traffic

Reference tables

We have created a section of the site to hold some reference information that comes handy when using the other tools.

Currently there is the possibility to search the ICAO nationality letters matching a particular country name (or vice-versa).

Looking for the country matching ICAO nationality letters "ED":

ICAO country code/region:	<input type="text" value="ED"/>	Country Name:	<input type="text"/>	<input type="button" value="Search"/>
ICAO region	Country name			
ED	Germany			

Looking for the nationality letters corresponding to Belgium:

ICAO country code/region:	<input type="text"/>	Country Name:	<input type="text" value="belg"/>	<input type="button" value="Search"/>
ICAO region	Country name			
EB	Belgium			

Tools

This section currently offers two utility functions:

Calculation of true bearing and distance between two points

Bearing and distance			
Point A:	Any	LEPA	
Point B:	Any	EGKK	<input type="button" value="Calculate"/>
Point defined as bearing/distance from a starting location			
Point A:	Any		
Distance:		Nm Bearing:	<input type="button" value="Calculate"/>
Calculation results			
Point A: A LEPA (PALMA DE MALLORCA) N39330603 E002441971,			
Point B: A EGKK (GATWICK) N51085300 W000112500,			
Distance: 706.984645947 Nm			
True bearing: 350.962553994			

Determination of a point at a specified bearing and distance from a given starting point

Point defined as bearing/distance from a starting location			
Point A:	Waypoint	GERSA	
Distance:	60	Nm Bearing:	235 <input type="button" value="Calculate"/>
Calculation results			
Point A: W GERSA (GERSA) N47022200E008315600,			
Point B: N46273622E007203788			

Quick-start guide to SVG

Here is a quick guide to get started and quickly be able to use the charting features of RouteFinder:

- Firstly, at the time of this writing, there are 2 SVG viewers available, from Adobe and Corel. Routefinder was developed and tested only with the Adobe SVG Viewer version 3.
- Download the "Adobe SVG Viewer 3.01" from this link:
<http://www.adobe.com/svg/viewer/install/>
- Run the downloaded file to install the SVG viewer.
- Access once again the RouteFinder charting page. If the SVG viewer was installed correctly, on the right of the screen you will see a world map. Also, the first time you visualize SVG graphics, you will see a dialog box containing the license agreement for the SVG viewer, which you have to acknowledge.
- Remember, the Adobe SVG page is at: <http://www.adobe.com/svg/>
- **Important notice:** If you are using Windows 98 or ME, it is recommended that you upgrade at least to Internet Explorer 6.0. There are known issues when using Windows 98/ME with Internet Explorer 4/5.x and SVG Viewer to visualize dynamic SVG content.

You may use the following commands with the SVG viewer:

- **Zoom in** - hold down the **CTRL** key (the cursor becomes a magnifying glass icon) and **click** on the map. You may also click-and-drag to draw a zoom rectangle.
- **Zoom out** - hold down the **CTRL** and **SHIFT** keys and **click** on the map.
- **Pan** - hold down the **ALT** key (the cursor becomes an hand icon) and **drag** the map with the mouse.
- An useful **pop-up menu** can be accessed with the **click** of the **right** mouse button.

Moreover if the SVG file you are viewing has some interactivity, there may be some hot-spot to click to accomplish a particular action, or the pop-up menu may contain additional options. (in our case, you can click on an airport symbol and get more information).

That's pretty much all you need to know about how to view SVG files.

Appendix A – ARINC area codes

Area Code	Meaning
USA	USA
CAN	Canada and Alaska
PAC	Pacific
LAM	Latin America
SAM	South America
SPA	South Pacific
EUR	Europe
EEU	Eastern Europe
MES	Middle East – South Asia
AFR	Africa