GNNS TRACK FLIGHT MAPPING SOFTWARE COMPARISON

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The goal was to evaluate most of the available market mapping software for flight analysis, using IGC files downloaded from IGC or other loggers. The panel was composed of three pilots having a good knowledge of PC systems and three different interests in soaring: long distance and records flights, in particular in wave systems, FAI competition at international level and touristic and pioneer flying.

Four products had to discarded at the screening stage: Garmglide because immature, TaskNav because of total lack of maps and some inaccuracy in the database, FlightPlanner because of its high cost and not well suited for soaring, TaskFinder because of the poor (DOS like) user interface. Some of these products are however of high quality but not relevant for the aim of the study. TaskNav can be very useful for contest organizers who care only about the few turn points of the day for all pilots, more than for individuals who want to know every detail of their own and few other fellow's flights.

Products finally intensively studied have been: CoutraCi, Flight Display, SeeYou and StrePla

Two families of products have been identified: basic and advanced, with two types of distribution: free (or almost free) and paid commercial licences. All of them use vector or raster maps, most (but not all) use raster maps. Raster maps are by far the most accurate and realistic, they are easy to produce but they cannot be sold unless a licence is obtained from the editor. Considering the high number of editors in Europe, getting rights from ICAO editors is unrealistic. SeeYou is presently negotiating an agreement with Jeppesen and it could be a good solution, although Jeppesen GPS maps have rather poor representation of the terrain and topography. Vector maps (only SeeYou and StrePla) do not offer sufficient accuracy and almost zero information about the terrain. They are sufficient for the evaluation of a flight, but you will not be able to determine what was the hill that created that small wave or confluence that made you come back home that evening.

In the first family, our preference went to CoutraCi. We believe that it will satisfy 90% of the soaring population at near to zero cost. All basic functions are very easily available (also in English), but the statistics is almost absent. It works well on any PC, even an old 486 under Windows 3.1, even directly from a diskette (but without map, since it accepts map size up to 16 Mb). It reads most waypoint formats.

The statistics of Flight Display is somehow better, but limited to a single flight and not easy to manage. We could not find any animation, and the use is more tricky and less intuitive then CoutraCi. The management of the waypoint database is far more complex and it uses a proprietary format.

In the second family, our preference went very clearly to SeeYou. The interface is more modern, more intuitive, "Office like", and puts most of the standard and advanced Windows 95/98/NT functions at the disposal of the user, at a single click. The calibration of the raster maps needs some improvement (it uses cylindrical projection while ICAO use conical with elliptic parallels), which will not be any more necessary when Jeppesen maps

will be included (rectangular grid). In any case, it is better than nothing, like StrePla. The price was very attractive, considering that all the maps of the word are included. Only for flying in the Alps, it costs 50% less then StrePla. StrePla is more complete, and has some interesting features as shown in the following table, such as the graphic preparation of the task. Finding and understanding how these functions work is time demanding, and we had doubts that most of them would have been forgotten during the non cross country flying season (six months in our countries). Both SeeYou and StrePla have issued a new release few weeks ago, seen at the Aero 2001 in Friedrichshafen. SeeYou has improved some details, is available in more languages and has announced the Jeppesen GPS VFR maps in a near future. Graphic editing of waypoints, although excellent, has been improved. StrePla was also advertising a lot of improvements, but since there was not other language than German, we could not start any "hands on" testing. Also prices were soaring ….

All details with many pictures in Italian language in the magazine.

Some useful addresses:

CoutraCi: http://perso.wanadoo.fr/y.ctr/
Flight Display: http://www.go.com/Split?pat=go&col=WW&qt=flightdisplay
Flight Explorer (by Cambridge): http://www.cambridge-aero.com/flight_explorer.htm
Flight Planner: http://www.ifos.de/fpweb/news.htm
SeeYou: http://www.seeyou.ws/
SeeYou (in Italiano): http://italy.seeyou.ws/seeyou/index.htm
StrePla: http://www.aero-online.com/strepla/english/index.html
Taskfinder: http://home.clara.net/eagle/home.htm
TaskNav: http://www.decollage.org/cendron/

Raster maps (examples) for CoutraCi (and others): http://perso.club-internet.fr/jmpradie/

Fédération Aéronautique Internationale, section IGC: http://www.fai.org/gliding/

All the free software for soaring pilots: http://acro.harvard.edu/SSA/ssa_programs.html
All mathematical formulas for aviation: http://www.best.com/~williams/avform.htm

Word database for waypoints: http://acro.harvard.edu/SSA/JL/TP/HomePage.html
Word database for waypoints (Michael Meier): http://www.segelflug.de/

Additional information about waypoints (word):
http://acro.harvard.edu/SSA/JL/TP/links.html
Everything about GPS: http://vancouver-webpages.com/pub/peter/index.html
Everything about GPS (commercial) : http://www.gpsworld.com/
Other sites about GPS: http://home.sprynet.com/~brimmer/bookmarksgps.htm
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	Coutraci V 1.04	FL Display V 1.5.3.0	SeeYou V 1.11	StrePla V.170
We liked very much ...	- **Easyness of use and very fast learning** - **the price, practically free, for the present time** - **The extreme accuracy of the raster maps** - **The direct connection to the logger for down/uploads.** - **The stability and speed of the PC** - **The possibility to work in real time, during the flight, when connected to any GPS logger and any PC (very low cost excellent moving map computer)**	- **The price: free.** - **The extreme accuracy of the raster maps** - **The stability and speed of the PC**	- **Modern graphic interface, excellent and logical ergonomy.** - **Plenty of options, full use of native functions of W95/98/NT** - **Direct Drag & Drop of several flight files on the icon.** - **Vector maps of the whole word are free.** - **The Save Desktop function** - **Excellent statistics (the best of all)** - **The "Optimize" function that calculates the waypoints for the best task.**	- **Graphic preparation of the task** - **The direct connection to the logger for downloads.** - **Very high number of functions (we probably could not explore all of them).**
We did not like ...	- **Very few statistics** - **File names troncated to 8 characters (16 bits software)**	- **No flight parameter** - **No connection between barogramme and flight track** - **Very limited statistics** - **Long time to load the track in high resolution mode** - **The proprietary WP format.**	- **Low accuracy of the vector maps (Varese airport is in the middle of the lake)** - **In graphic mode, preparation of the task is limited to the open map.** - **Time for loading vector maps at any change of zoom.** - **Saving the file and options with .IGC extension. Very dangerous: makes your declaration invalid!**	- **Low accuracy of the vector maps (Varese airport is in the middle of the lake)** - **Low quality of the vector maps** - **The VERY HIGH PRICE TO PAY for getting vector maps of Europe.** - **Impossibility to use raster maps.** - **File names troncated to 8 characters** - **THE PRICE !!**