September 18 was held the eighth meeting of the people, not just hams, interested in satellite communications.

The location of the meeting was the Joseph Hotel in Marina di Pietrasanta (Lu), well known to the most because since many years hosts also the national EME convention.

The meeting, according to the tradition and the best Ham Spirit, is open to everybody and offers an agenda of great appeal, ranging from current issues about Ham's world, general situation of the satellites, technical lectures.

The opening of the meeting was held by the Vice-President of the ARI Tuscany Regional Committee I5XFD, Franco, who welcomed the presents and remembered the president of the CRT IK5NFD Sergio Marinelli, recently passed away.

IKONSY, Stefano, presented a detailed assessment of the current costs of construction and launch of a cubesat class satellite, based on what is published in specialized magazines such as SatMagazine, upon recent experiences of Italian universities and by consulting a number of suppliers of materials and launch services.

In recent years, these small satellites, having just one liter of volume and a weight of a kilogram, have become very popular for teaching/training purpose and their costs are nowadays particularly affordable.

Their launch is done in groups of three, filling the "spare room" left by the main load (payload) on the launcher.

Forecasts suggest for the next three years, the launch of at least 80 cubesat by various associations and universities. It would be intention of the group which met here, working in such a way that Italians hams will return to get into orbit a satellite designed and built by them.

In order to simplify the length and the cost list of the approval procedures, it is now possible to buy some "general purpose" modules already prepared and certified for flight ad orbit. This possibility reduce a lot the development time and the cost of the project. The development team could thus focus its efforts on the "customization" of the satellite, developing new operating mode, control systems, on-board experiments and testing of innovative materials and technologies, just to mention few of the ideas on the table.

Several proposals are already on discussion and evaluation and in a close future the team will sort out the "winning ones".

The total project cost is today estimated at € 30-50000 depending on the complexity of the experiments that will be chosen and implemented and the "best price" possible for the launch.

Pierluigi IW4BLG, presented his book titled: "Hamsat", entirely dedicated to amateur satellites, their history, associations, technology, optimization of the radio station, antennas and propagation phenomena Earth to space.

The book is available from the publisher (www.sanditlibri.it) in various libraries of the major cities, on Ebay and in almost all the italian fairs of electronics and ham gears.
Afterwards, Angiolo, I5SXN, presented the development of some broad band preamplifier based upon the studies of Piero Moroni, I5TDJ. Outstanding features of these amplifiers include high-dynamic range and isolation as well as very good return-loss of the input and output ports.

IK5FGJ Raffalele, presented some sketches on how to make a good pre-amp 144/430 MHz basing his work on a deep optimization of various projects already known. In a close future, all the papers will be available on the net as well as a suitable printed circuit board for SMD proto.

IZ5IOW, Marco, presented a study about not conventional antennas.
At this large family of devices, belong the CFA (Crossed Field Antenna), the EH W5QJR, the fractal antennas, the patches and the chiral ones.
Many of these antennas are widely used on devices such as satellites, mobile phones, data network (WiFi). From that, the invitation to experiment them for amateur applications.

Andrea IZ5TLU, also icon of the younger generation, presented an exciting study on the "Earth-Space" propagation, in other words all about all phenomena that perturbing the path of the signal at various frequencies (21MHz-24GHz!) now and then used in traffic-satellite.

Roberto IW5BSF, satellite manager for ARI has presented the state of the art about two important topics.
The first "hot topic" is the interference recently experienced in the international ham satellite traffic. Those frequencies were subject in our country of repeated disturbances from other services (analog and digital repeaters in particular) that accordingly the international agreements (IARU), should be allocated on other portions of the band.
The outcome of this conflicting situation between different ham services was quite severe and it has certainly damaged the images of our country and community of amateur.
The conviction of all present, is that we must reach as soon as possible a complete sharing of the international rules (IARU) all over the puzzled world of the italian hams associations.
Final goal is to aloud to everyone, without membership or affiliation distinction, to be able to experiment and "enjoy the radio" without compromising the rights and pleasure of others to do the same in with other means.
For the success of this mission, it will be very important the role of the ARI.

The second report, long awaited, updated the present on the AMSAT-DL project known as the P3-E satellite, which should replace Oscar40. Because of the world wide economic crisis occurred on the latest years and some change on the structures of AMSAT-DL, the project's suffered some delay.
Today, the P3-E is expected to be placed in an elliptical orbit similar to that of its predecessors AO10, 13, and 40. It should carry 3-linear transponder and be the base of experimentation for the future P5, intended to be flown up to the Mars orbit.
Although many agencies have been contacted, it seems that only with the new ESA Arianne5 we will may on a future not far off (2012-2018), finally see it fly high over our heads.

At the end of the intense morning of presentations, Antonio I5NQK, illustrating the "fun and sorrows" about the use of the very popular FunCube Dongle. To the undeniable miniaturization, convenience of use, flexibility and sensitivity he opposed the limitations of the device such as poor dynamic front end and little selectivity.

In the afternoon, was set up a test bench to allow the measurement and comparison of different electronic equipment.

All the guests of the meeting, received a free copy of the CD prepared by Roberto, containing all the presentation.
For those interested in deeply exploring the themes discussed, they can visit:
  Yahoo group: hamsats_ari
    that gathers all the fans now active on projects in progress,
  Or visit the web:
  www.hamsats.altervista.org

See you then in orbit!

We thank IZ1ERR IZ5IOW for photographs of the meeting and all participants for the very pleasant day.

Pierluigi Iw4blg