

resource conservation in production, and the value of biodiversity to humans, respectively.

4. Thus, every country must choose the most suitable variant of solving this problem for itself and continue to fight with the environmental pollution.

## **WHAR ARE HOLLOGRAPHIC INFOEMATION CARRIERS?**

Доп. – ЯНКОВ Д.С., ДМ-41

CD was the first optical store. First CD disk was created in 1980 only for music purpose. The capacity of one CD is near 700MB. DVD was created in 1995. Rewritable disks were created in 2001. The capacity of single-ply DVD is 4,7GB that is near 6,7 times greater than CD.

Nowadays InPhase Technologies Corporation create a new type of storage called a HOLOGRAPHIC storage

The major challenge to creation holographic storage has been the development of a suitable storage medium. The scientists at Bell Labs worked on media and systems for seven years, and developed the solution that eluded other research teams.

It's likely to be one of the first commercial systems to use "holographic storage," in which bits are encoded in a light-sensitive material as the three-dimensional interference pattern of lasers.

Unlike CDs and DVDs, which store data bit by bit on their surfaces, holographic discs store data a page at a time in three dimensions, enabling huge jump in capacity and access speed.

Holographic storage could even compete with the magnetic hard drive as the computer's fundamental storage unit. And on a larger scale, corporate and government data centers could replace their huge storerooms of server magnetic-tape reels with the quiet drone of holographic disc drives.

But this is no ordinary recording process. The disc has more than 60 times the storage capacity of a standard DVD, while the drive writes about 10 times faster than a conventional DVD burner. That means the disc can store up to 128 hours of video, so you can store there near 100 films.

InPhase earlier this year demonstrated a 300GB prototype at the National Association of Broadcasters using film provided by Turner Broadcasting System.

300GB disk will be available in July this year. 1,6 TB disk expected by 2010.

One 300GB disk can replace approximately 210 000 floppy disks(diskettes) or 430 CDs or 66 single-ply DVDs.

Eventually, if the hardware becomes affordable for consumers, holographic storage could replace DVDs and become the dominant medium for games and movies. Portable movie players and phones that download multimedia from the Web would take off.

But in the meantime, both the Optware and InPhase drives are targeted at the enterprise storage market, with drives priced at approximately \$12,000 and media at \$120.

## **- THE LATEST DEVELOPMENTS OF MOBILE PHONES**

Доп. – Єременко А.А., ФЕ-41

1. The Japanese company Fujitsu has made for Japanese operator NTT DoCoMo watertight mobile telephone F703i.

The Producer guarantees that the owner of this telephone can use his means of mobile communication in any rainstorm, and its water protection makes it possible to keep the telephone under water at the depth of up to one meter for half an hour without any harm.

2. The Company Elek Sen announced a fabrics keyboard for mobile telephone Orange SPV, which is intended for more suitable set of non digital information. The users of Orange mobile telephone will now be able to extend their mobile functional opportunities for those cases, when quick and suitable non digital set is necessary (for example, sms).

3. One of the slimmest mobile telephones is Smart S100 (7.7 millimeter thick). Besides its size this telephone may surprise you with original location of its buttons reminding of a disc telephone. In the centre of this disk there is a Joystick for controlling.

4. The Finnish company Nokia has given its own concept of a mobile telephone, named Aeon. It's a rather slim monoblock. Its