

## **AMATEUR APPROACH TO SATELLITE WEATHER INFORMATION**

Доп. – Сулим В., ИМ-43

By now thousands of artificial satellites have been put in near-earth orbit to serve scientific programs, communication, military etc. and to give information about the current state of our planet. Special systems of satellites launched by different countries obtain and process data about the weather conditions all over the earth surface and transmit it to ground weather-stations where it is used to create forecasts.

National Aeronautics and Space Administration (NASA) has been developed polar-orbiting satellites for the United States scientific agency – National Oceanic and Atmospheric Administration (NOAA). NOAA provides National Environmental Satellite, Data, and Information Service which was created to operate this group of satellites serving National Weather Service. The group includes satellites of series NOAA which provide Automatic Picture Transmission (APT).

APT consists of image data and the signal from NOAA's satellites can be received with inexpensive equipment on very high frequencies (VHF) by radio-amateurs. Special receiver and antenna can be ordered or made by hand. In 2002 Russian magazine "Radio" published an article about a high-quality USW FM receiver developed by Austrian radio-amateurs. Through few changes it can be relatively simply assembled and used to receive a coded signal from NOAA's satellites. With the help of PC and special software including the satellite tracking systems the signal can be decoded and transformed to a picture.

## **THE ENTREPRENEURIAL SPIRIT**

Доп. – Токар Ю.С.

1. Personal independence, unlimited profit potential, the opportunity to work at something that they really love and at

hours they choose are some of the reasons people have given for trying entrepreneurship.

2. Assuming risk is a key ingredient of the entrepreneurial spirit. Everybody should accept that starting a business involves an element of risk, but everybody should learn how to manage the risks by understanding what they are.
3. A common way to learn about a businessman, and the opportunities for starting one similar to it, is to learn while working for someone else.
4. People become owners and operators of small business firms in one of three ways: start s new firm, buy or inherit an existing firm.
5. Three words spell success in business: "Just do it!"
6. One of the greatest obstacles to entrepreneurial spirit is getting started without enough start-up capital.
7. If the small business entrepreneur is going to have a growing and successful business, that person must understand how to manage one of the business's most important resources, people.
8. As the firm sells its products or services, it receives money, which it uses to meet its expenses.
9. About 50 percent of entrepreneurs start their business in industries in which they have some experience.
10. Evidence shows that people who come from families whose members were in business themselves are more likely to start their own companies. Unfortunately, the record shows that two out of three new businesses fail within their first four years.
11. The existence of a strong, healthy small business community has always been recognized as the best way to preserve competition, prevent monopolistic control of any industries, and the population of the benefits of competition through better prices and quality products.
12. Nowadays people who go on business travel a lot.
13. Negotiation is an essential part of the every-day business life. It can take place at any time and in any place. Negotiation is a kind of meeting, but contrary to the latter it may be held in

some unexpected and uncomfortable place such as the street or on the stairs.

14. To be a businessman is not an easy thing.

## **DISCOVERING THE MODEL OF OBJECT RECOGNITION**

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### **1. Discovering model at MIT**

For the first time, scientists have applied a computer model of how the brain processes visual information to a complex, real world task: recognizing the objects in a busy street scene. The researchers were pleasantly surprised at the power of this new approach.

### **2. Recognizing scenes**

Compared to traditional computer-vision systems, the biological model was surprisingly versatile. Traditional systems are engineered for specific object classes. In the biological model, the same algorithm can learn to detect widely different types of objects.

### **3. Modeling object recognition**

Teaching a computer how to recognize objects has been exceedingly difficult because a computer model has to create a representation for a particular object that is very specific. At the same time the representation must be sufficiently "invariant".

### **4. Making it more useful**

Giving the model the ability to recognize such semantic features will empower it for broader applications, including managing seemingly insurmountable amounts of data, work tasks or even e-mail.