WORKING PLACE & EQUIPMENT

Most air traffic controllers do their job without seeing aircraft they guide.

1. Can you describe your working place?
2. What do radar screens allow you to do?
3. What information do you get from auxiliary flight data displays?
4. How should you act if your equipment fails?

Air traffic controllers use modern and reliable equipment (systems, facilities). ATC working positions are ***equipped with radar displays***, auxiliary flight data displays and voice communication control panel.

Radar screens (displays) allow the controller to ***monitor area of responsibility*** and ***track aircraft***. Main radar display shows a map of the sector, airways, significant points and ***aircraft blips*** accompanied by labels. The label gives the aircraft callsign, position, flight level and ***progress of flight***. The ground speed, rate of climb or descent is also displayed on the screen. The controller can enter assigned flight level and ETOver (estimated time over some point) to predict (forecast) traffic situation. Besides, there are different ***conflict alert systems*** installed, which warn controllers about potential danger or conflict.

Auxiliary flight data displays ***provide controllers with*** meteorological information (i.e. metreports, forecasts, SIGMETS), navigational information and aerodrome data. Controllers communicate with pilots ***using (via) radio stations***. ATC controllers coordinate information with adjacent units (neighbor sectors) and necessary services via telephone. They ***exchange different information*** concerning flights, current conditions and restrictions.

ATC consoles (working positions) are duplicated to provide non-stop operations. Technical engineers (technicians, technical service) ***maintain ATC equipment*** and provide its proper work. Radar and radio operational status is regularly checked. In case of malfunction, technical staff ***repair (fix) faulty equipment*** and replace it. In such situations, controllers ***change to backup (auxiliary) systems*** and continue work.

Today air traffic controllers use complex systems and up-to-date computers (software). ATC equipment is ***constantly upgraded*** and new systems are developed, for example, OLDI (On-Line Data Interchange). OLDI helps send information to a neighboring center ***electronically*** instead of a phone call. CPDLC (Controller Pilot Data Link Communication) is another technology used. It sends text messages ***instead of voice messages***. It is especially useful for long-range communications (e.g. when aircraft over oceans) or in a congested airspace. One more modern technology ***(satellite-technology)*** called ADS-B (Automatic Dependent Surveillance – Broadcast) is implemented now. ADS-B makes radar displays more accurate.