

**МІНІСТЕРСТВО ВНУТРІШНІХ СПРАВ УКРАЇНИ  
ХАРКІВСЬКИЙ НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ ВНУТРІШНІХ СПРАВ  
КРЕМЕНЧУЦЬКИЙ ЛЬОТНИЙ КОЛЕДЖ**

**Циклова комісія економіки, соціально-гуманітарних та фундаментальних  
дисциплін**

**ТЕКСТ ЛЕКЦІЇ**

з навчальної дисципліни  
«Професійна англійська мова  
(розмовна мова, фразеологія радіообміну)»  
обов'язкових компонент  
освітньо-професійної програми  
першого (бакалаврського) рівня вищої освіти

**Аеронавігація**

**За темою № 1. – Основні вимоги щодо мовної підготовки фахівців авіаційної галузі відповідно до нормативних документів Міжнародної організації цивільної авіації (ICAO).**

**ЗАТВЕРДЖЕНО**

Науково-методичною радою  
Харківського національного  
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Протокол від №

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Протокол від №

**ПОГОДЖЕНО**

Секцією науково-методичної ради  
ХНУВС з гуманітарних та соціально-  
економічних дисциплін  
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**Розробник:**

1. Викладач циклової комісії філологічних дисциплін, кандидат педагогічних наук, спеціаліст вищої кваліфікаційної категорії Поддубей Олена Вікторівна
2. Викладач циклової комісії філологічних дисциплін, спеціаліст вищої категорії Ришкова Інна Сергіївна

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2. Кірюхіна М. В. – викладач циклової комісії соціально-гуманітарних дисциплін та фізичної підготовки, кандидат педагогічних наук, спеціаліст вищої кваліфікаційної категорії, викладач-методист, Кременчуцького льотного коледжу ХНУВС.

## **План лекції**

1. The concept of radiotelephony.
2. Definitions of principal terms.
3. Transmitting technique.

### **Рекомендована література:**

#### **Основна:**

1. Doc 4444 ATM/501: Air Traffic Management: Procedures for Air Navigation Service. 15th ed. Montreal: International Civil Aviation Organization, 2001. 64 p.
2. ICAO Manual on the Implementation of ICAO Language proficiency Requirements (Doc 9835 AN/42) International Civil Aviation Organization. Montreal, 2010. 149 c.
3. ICAO Manual on the Implementation of ICAO Language proficiency Requirements (Doc 9432 AN/925) International Civil Aviation Organization. Montreal, 2007. 134 c.

#### **Допоміжна:**

1. Robertson F., and E. Johnson. Airspeak: Radiotelephony for Pilots. London: Prentice Hall, 1987.
2. Weir, C.J. Language Testing and Validation — An Evidence-Based Approach. Palgrave MacMillan, 2005.

#### **Інформаційні ресурси в Інтернеті:**

1. International Civil Aviation Organization (ICAO)  
<http://www.icao.int/icao/en/trivia/peltrgFAQ.htm#lang>
2. English Language Proficiency for Aeronautical Communication (ELPAC)  
<http://www.elpac.info/>

## 1. THE CONCEPT OF RADIOTELEPHONY.

Radiotelephony (RTF) provides the means by which pilots and ground personnel communicate with each other. The information and instructions transmitted are of vital importance in the safe and expeditious operation of aircraft. Incidents and accidents have occurred in which a contributing factor has been the use of non-standard procedures and phraseology. The importance of using correct and precise standardized phraseology cannot be overemphasized.

ICAO phraseologies are developed to provide efficient, clear, concise, and unambiguous communications, and constant attention should be given to the correct use of ICAO phraseologies in all instances in which they are applicable. However, it is not possible to provide phraseologies to cover every conceivable situation which may arise, and the examples contained in this manual are not exhaustive, but merely representative of radiotelephony phraseology in common use.

Users may find it necessary to supplement phraseologies with the use of “plain” language. When it is necessary to use plain language, it should be used according to the same principles that govern the development of phraseologies in that communications should be clear, concise, and unambiguous. Sufficient proficiency in the language being used is also required.

In addition to correct use of phraseologies and adequate language proficiency, it is also important to keep in mind that the language being used in radiotelephony is often not the first language of the receiver or originator of a transmission. An awareness of the special difficulties faced by second-language speakers contributes to safer communications. Transmissions should be slow and clear. Direct statements which avoid idiomatic expressions are easier to understand than indirect statements or colloquialisms or slang.

Furthermore, certain States may specify in their aeronautical information publication (AIP) particular requirements on first contact when entering their airspace or prior to leaving their airspace. Pilots should, therefore, ensure that they are aware of such procedures by referring to the relevant instructions (e.g. AIP and NOTAM) before undertaking international flights.

## 2. DEFINITIONS OF PRINCIPAL TERMS

*Aerodrome control service.* Air traffic control service for aerodrome traffic.

*Aerodrome traffic.* All traffic on the manoeuvring area of an aerodrome and all aircraft flying in the vicinity of an aerodrome.

*Aerodrome traffic circuit.* The specified path to be flown by aircraft operating in the vicinity of an aerodrome.

*Aeronautical mobile service (RR S1.32).* A mobile service between aeronautical stations and aircraft stations, or between aircraft stations, in which survival craft stations may participate; emergency position-indicating radiobeacon stations may also participate in this service on designated distress and emergency frequencies.

*Aeronautical station (RR S1.81).* A land station in the aeronautical mobile service. In certain instances, an aeronautical station may be located, for example, on board ship or on a platform at sea.

*Air-ground communication.* Two-way communication between aircraft and stations or locations on the surface of the earth.

*Air traffic.* All aircraft in flight or operating on the manoeuvring area of an aerodrome.

*Air traffic control clearance.* Authorization for an aircraft to proceed under conditions specified by an air traffic control unit.

*Air traffic service (ATS).* A generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service).

*Air traffic services unit.* A generic term meaning variously, air traffic control unit, flight information centre or air traffic services reporting office.

*Airway.* A control area or portion thereof established in the form of a corridor.

*Altitude.* The vertical distance of a level, a point or an object considered as a point, measured from mean sea level (MSL).

*Approach control service.* Air traffic control service for arriving or departing controlled flights.

*Apron.* A defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance.

*Area control centre (ACC).* A unit established to provide air traffic control service to controlled flights in control areas under its jurisdiction.

*Automatic terminal information service (ATIS).* The automatic provision of current, routine information to arriving and departing aircraft throughout 24 hours or a specified portion thereof.

*Data link-automatic terminal information service (D-ATIS).* The provision of ATIS via data link.

*Voice-automatic terminal information service (Voice-ATIS).* The provision of ATIS by means of continuous and repetitive voice broadcasts.

*Blind transmission.* A transmission from one station to another station in circumstances where two-way communication cannot be established but where it is believed that the called station is able to receive the transmission.

*Broadcast.* A transmission of information relating to air navigation that is not addressed to a specific station or stations.

*Clearance limit.* The point to which an aircraft is granted an air traffic control clearance.

*Controlled airspace.* An airspace of defined dimensions within which air traffic control service is provided in accordance with the airspace classification.

*Control zone.* A controlled airspace extending upwards from the surface of the earth to a specified upper limit.

*Expected approach time.* The time at which ATC expects that an arriving aircraft, following a delay, will leave the holding fix to complete its approach for a landing.

*Flight information centre.* A unit established to provide flight information service and alerting service.

*Flight plan.* Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft.

*Heading.* The direction in which the longitudinal axis of an aircraft is pointed, usually expressed in degrees from North (true, magnetic, compass or grid).

*Holding fix.* A geographical location that serves as a reference for a holding procedure.

*Holding procedure.* A predetermined manoeuvre which keeps an aircraft within a specified airspace while awaiting further clearance.

*IFR flight.* A flight conducted in accordance with the instrument flight rules.

*Instrument meteorological conditions (IMC).* Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for visual meteorological conditions.

*Level.* A generic term relating to the vertical position of an aircraft in flight and meaning variously, height, altitude or flight level.

*Manoeuvring area.* That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons.

*Missed approach procedure.* The procedure to be followed if the approach cannot be continued.

*Movement area.* That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron(s).

*Radar approach.* An approach in which the final approach phase is executed under the direction of a radar controller.

*Radar identification.* The situation which exists when the radar position of a particular aircraft is seen on a radar display and positively identified by the air traffic controller.

*Reporting point.* A specified geographical location in relation to which the position of an aircraft can be reported.

*Runway visual range (RVR).* The range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line.

*Touchdown.* The point where the nominal glide path intercepts the runway.

*Track.* The projection on the earth's surface of the path of an aircraft, the direction of which path at any point is usually expressed in degrees from North (true, magnetic or grid).

*Vectoring.* Provision of navigational guidance to aircraft in the form of specific headings, based on the use of radar.

*VFR flight.* A flight conducted in accordance with the visual flight rules.

*Visual approach.* An approach by an IFR flight when either part or all of an instrument approach procedure is not completed and the approach is executed in visual reference to terrain.

*Visual meteorological conditions.* Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima.

### 3. TRANSMITTING TECHNIQUE

The following transmitting techniques will assist in ensuring that transmitted speech is clear and satisfactorily received:

- a) before transmitting, listen out on the frequency to be used to ensure that there will be no interference with a transmission from another station;
- b) be familiar with good microphone operating techniques;
- c) use a normal conversational tone, and speak clearly and distinctly;
- d) maintain an even rate of speech not exceeding 100 words per minute. When it is known that elements of the message will be written down by the recipient, speak at a slightly slower rate;
- e) maintain the speaking volume at a constant level;
- f) a slight pause before and after numbers will assist in making them easier to understand;
- g) avoid using hesitation sounds such as “er”;
- h) be familiar with the microphone operating techniques, particularly in relation to the maintenance of a constant distance from the microphone if a modulator with a constant level is not used;
- i) suspend speech temporarily if it becomes necessary to turn the head away from the microphone;
- j) depress the transmit switch fully before speaking and do not release it until the message is completed. This will ensure that the entire message is transmitted;
- k) the transmission of long messages should be interrupted momentarily from time to time to permit the transmitting operator to confirm that the frequency in use is clear and, if necessary, to permit the receiving operator to request repetition of parts not received.

An irritating and potentially dangerous situation in radiotelephony is a “stuck” microphone button.

Operators should always ensure that the button is released after a transmission and the microphone placed in an appropriate place ensuring that it will not inadvertently be switched on.