МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ

НАЦІОНАЛЬНИЙ АВІАЦІЙНИЙ УНІВЕРСИТЕТ

Факультет лінгвістики та соціальних комунікацій

Кафедра англійської філології і перекладу

**НАВЧАЛЬНО-МЕТОДИЧНІ РЕКОМЕНДАЦІЇ
ДЛЯ СТУДЕНТІВ ЗАОЧНОЇ ФОРМИ НАВЧАННЯ**
з дисципліни «Переклад в авіаційній галузі»

Галузь знань	03	Гуманітарні науки
Спеціальність:	035	Філологія
Спеціалізація:	035.041	Германські мови та літератури (переклад включно), перша – англійська
ОПП:		Германські мови та літератури (переклад включно), перша – англійська

Укладач:
ст. викладач Пилипчук М.Л.

Дана навчальна дисципліна є теоретичною та практичною основою сукупності знань та вмінь, що формують профіль фахівця в галузі авіаційного перекладу.

Метою викладання дисципліни є вивчення особливостей перекладу авіаційної термінології українською та англійською мовами, розвиток перекладацьких умінь студентів та навичок роботи у межах спеціального авіаційного дискурсу.

Завданнями вивчення навчальної дисципліни є:

- вдосконалення практичних навичок адекватного перекладу фахової авіаційної літератури з англійської на українську мову та навпаки;
- вивчення термінологічної лексики авіаційної галузі;
- уміння застосовувати стилістичні, граматичні та лексичні перекладацькі трансформації у процесі перекладу авіаційної літератури.

У результаті вивчення даної навчальної дисципліни студент повинен:

Знати:

- основні граматичні проблеми науково-технічного перекладу взагалі та текстів авіаційної тематики зокрема;
- основні лексичні, термінологічні та жанрово-стилістичні особливості англійських та українських текстів з цивільної авіації;
- основні терміни та термінологічні сполучення авіаційної галузі;
- основні вимоги до перекладу термінів та їх особливості;
- сфери застосування авіаційної термінології;
- способи перекладу термінологічних одиниць;
- лексичні та граматичні перекладацькі трансформації.

Вміти:

- перекладати оригінальну фахову авіаційну літературу;
- володіти лексикою терміносистеми цивільної авіації;
- аналізувати граматичні та лексичні особливості англійського й українського науково-технічного тексту фахової мови авіації.

Система контролю й оцінювання знань, умінь та навичок студентів з навчальної дисципліни складається з поточного та підсумкового контролю у формі екзамену.

- Поточний контроль передбачає перевірку та оцінювання знань студентів у формі домашньої контрольної роботи.
- Підсумковий контроль здійснюється у формі екзамену.

Домашня контрольна робота (ДКР) виконується студентами в письмовому вигляді та роздруковується на папері формату А4. Кожен студент виконує завдання одного варіанту ДКР, залежно від обраного ним рівня складності. Номер варіанту співпадає з порядковим номером прізвища студента в списку групи. Кожен варіант ДКР зосереджений на матеріалі окремої підтеми модуля, тому для володіння повним матеріалом модуля та для підготовки до екзамену студент має ознайомитись з текстами усіх варіантів ДКР.

Тематичний план модуля:

1 (варіант)	Будівля терміналу. Облаштування аеровокзалу.
2 (варіант)	Загальні принципи функціонування аеропортів.
3 (варіант)	Процедура реєстрації.
4 (варіант)	Загальні принципи облаштування

	аеродромів.

Шкала оцінювання ДКР

Виконання та захист ДКР	
54-60	Відмінно
45-53	Добре
36-44	Задовільно
менше 36	Незадовільно

На оцінку **«задовільно»** студент виконує **якісний** письмовий переклад галузевого тексту, що зазначений в його варіанті, подає підкреслені слова з тексту з перекладом у глосарій та робить письмово вправи, зазначені в його варіанті.

УВАГА!!! Не якісний машинний переклад з граматичними помилками перевірятися та оцінюватися не буде! Текст слід подавати у 2 колонках, де ліва – це оригінал, а права – переклад українською мовою. Переклад слів з глосарію також слід підкреслювати у тексті.

На оцінку **«добре»** студент виконує вимогу для оцінки «задовільно» та орієнтується в теоретичному матеріалі тексту (може усно відповідати на питання за тематикою тексту), а також знає переклад термінології з глосарію на пам'ять.

На оцінку **«відмінно»** студент виконує усі вищезазначені вимоги, окрім письмового перекладу може спонтанно перекласти фрагмент тексту усно з листа, володіє термінологією, тобто знає переклад усіх підкреслених слів у тексті, володіє теорією по тексту, виконує всі зазначені у його варіанті вправи після тексту.

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КОНТРОЛЬНА РОБОТА

з дисципліни:

«ПЕРЕКЛАД В АВІАЦІЙНІЙ ГАЛУЗІ»

(ВАРІАНТ №___)

ВИКОНАВ:

студент ___курсу ____ групи

Спеціальність: 035 «Філологія»

Спеціалізація: 035.04

«Германські мови та літератури

(переклад включно), перша – англійська»

ІВАНЕНКО ІВАН ІВАНОВИЧ

ПЕРЕВІРИЛА:

Старший викладач кафедри

англійської філології і перекладу

ПИЛИПЧУК М.Л.

Київ

Unit IV. Airport Characteristics

Text 1.

Read and translate the following text into Ukrainian.

Terminal Design

As an essential / integral component of the air transportation system, the airport is the physical site where a modal transfer is made between <u>air mode</u> and <u>surface mode</u>. It should provide the space, facilities and services appropriate for that modal transfer. The function of the airport facilities is to enable aircraft to land, <u>unload and load payload and crew</u>, be serviced, and take off. Therefore, airport design should take into account the landing and take-off of aircraft, the landside access by surface transport modes as well as the handling of passengers and cargo, in order to guarantee successful modal transfer. <…>

The terminal area is the major interface between <u>airside</u> and <u>landside</u>. For example, the passenger terminal should function as the landside access, the <u>processing center</u> of passengers and baggage, and the <u>boarding area</u> for departing passengers. <…> the passenger terminal system has three major components: <u>access interface</u>, <u>processing</u>, and <u>flight interface</u>. The **access interface** consists of the <u>terminal curbs</u>, <u>car park</u> and the <u>road system</u> used for <u>circulation in landside</u> of the airport. The facilities in the **processing system** include <u>airline counters for ticket issue and check-in</u>, <u>security checking facilities</u>, and the <u>associated service facilities</u> such as <u>amenities</u>, <u>concessions</u>, restaurants, <u>lobby for circulation and waiting</u>, spaces for <u>airline offices</u>, and <u>baggage handling and claim</u>. The services under governmental auspices, such as <u>customs</u>, <u>immigration</u> and <u>quarantine</u>, are also included in passenger processing. The **flight interface** comprises the connections between the <u>terminal</u> and the <u>parked aircraft</u>. This system is composed of the <u>concourse</u>, <u>departure lounge</u>, <u>passenger boarding device</u>, <u>airline operation space</u>, <u>security facilities</u>, other service areas, such as amenities, and the areas for building maintenance and utilities belonging to the nonpublic area.

Factors to Consider in <u>Passenger Terminal Design</u>

In providing a service, the needs of the users or customers must be considered first and likewise in the design of an airport passenger terminal. The primary customers of the airport services are <u>air passengers</u> and <u>airlines</u>. In recent years, visitors and surrounding communities have occasionally been included in the category of airport customers. This is because the <u>non-aeronautical commercial activities</u> in airport terminal buildings are gaining consideration as an important part of <u>airport operation</u>. To determine the factors influencing the design of the terminal building, it is necessary to overview the needs of air passengers, airlines, <u>airport management</u>, and communities in and around the passenger terminal.

Firstly, the passengers need convenient and comfortable services for processing in the terminal building. While normally hating long waiting times, complicated procedures and long walking distances, they have great interest in <u>on-time services</u>. To satisfy such needs, the location and the number of terminals are important, as are the facilities inside the terminal. The walking distances can be reduced somewhat by proper positioning of the terminal. Where traffic demand is too large to be accommodated in one terminal, it is impossible to reduce walking distances to a proper level, without operating multiple terminal buildings. However, the operation of multiple terminal buildings has a strongly negative influence on <u>operating costs</u>. In addition, a <u>multiple terminal building system</u> increases the complication for transfer passengers in connecting with their next flight in another terminal building. To reduce the degree of passenger flow complication, it is necessary for the convenience of the passengers to separate the <u>enplaning and deplaning passengers</u> and to simplify the parking facilities access. The <u>signage</u> guiding the passengers to the required facilities should be easy to follow and located at proper positions. To reduce the passenger waiting time at each processing stage, the number and layout of the facilities as well as the <u>utilizing procedure</u> should be designed with consideration for the features of passenger demand.

Secondly, the airline wants the space and facilities to be able to process the passengers and baggage in terminal building, with maximum efficiency and a proper level of service. To satisfy such needs, the flow of passengers and baggage should be direct and efficient, including <u>domestic and international, originating, terminating, and transfer traffic</u>. The airline also wants an environment that enables the provision of efficient and effective security.

Thirdly, the airport management has its own objectives in being responsible for maintaining all the facilities required for the provision of airport service. With concern for the overall airport terminal

operation, the airport management organization wants to maximize the revenue from <u>concessionaires</u> and other sources while minimizing the expenses of maintenance and operation.

This objective of profit maximization would bring about a potential 'conflict' between aviation and commercial activities.

Fourthly, the objectives of the community where the airport is located are complex. But they are primarily centered around a preference for the airport to display an operation concept of being environmentally oriented. Noise, air pollution, water pollution, and waste production are the major concerns related to airport operation that are held by the community. However, some community members desire a direct contribution from the airport service into their life, for example, employment and business opportunities as well as shopping and cultural events in airport terminal buildings. <…>

Factors to Consider in Cargo Terminal Design

The cargo terminal performs the function of cargo processing, including <u>conversion, sorting, storage, facilitation</u> and <u>documentation</u>. The factors affecting the size and form of the cargo terminal are as follows: (1) the mix and flow characteristics of the cargo, (2) the characteristics of the <u>surface and air vehicles</u>, (3) the <u>materials handling</u>, documentation, and <u>communication techniques</u>, and (4) the degree of <u>mechanization</u>. The location of the cargo terminal can be determined by considering the <u>landside access</u>, <u>airside access</u>, separation of <u>freight vehicles</u> from passenger terminal traffic, layout of airside service roads, and the availability of utilities.

The various elements to be considered in the design of cargo terminals are the volume and characteristics of market demand, the cargo volume composition of <u>domestic/international, inbound/outbound transfer</u>, and cargo/mail, the nature and amount of <u>material requiring special care</u>, and the seasonal/daily/hourly fluctuations of demand. The <u>fleet mix</u>, type of operations (all <u>cargo, combination and belly loads</u>), frequency, and number of aircrafts handled simultaneously on the apron greatly influence the design of the cargo terminal as well. In addition, the level of mechanization, security and safety should be considered for the design.

Exercise 1. *Using a monolingual dictionary of aviation or encyclopedia, please, find the definition of the following words and word combinations.*

Air mode, surface mode, airside, landside, processing center, boarding area, terminal curb, airline counter, amenity, concession, baggage handling and claim, customs, immigration, quarantine, parked aircraft, concourse, departure lounge, air passengers, airport management, on-time services, operating costs, enplaning, deplaning, signage, originating traffic, terminating traffic, transfer traffic, concessionaires, conversion, facilitation, mechanization, freight vehicles, inbound transfer, outbound transfer, fleet mix, belly load.

Exercise 2. *Answer the questions.*

1. What is an airport?
2. What is the function of airport facilities?
3. What should the airport design take into account?
4. What are the three major components of the passenger terminal?
5. What does access interface / processing system / flight interface consist of?
6. Who are the customers of airport services?
7. Why have visitors and surrounding communities been included in the category of airport customers?
8. What factors influence the design of the terminal building?
9. What do the passengers require to have convenient and comfortable services for processing in the terminal building?
10. What are the advantages and disadvantages of multiple terminal building system?
11. What are the requirements to the effective signage?
12. What does airline expect from the terminal building?
13. What is the major airport management concern?
14. Why are the objectives of the community where the airport is located are complex?
15. What is the fuction of cargo terminal?
16. What factors affect the size and form of the cargo terminal?
17. How can the location of the terminal be determined?
18. What should be considered in the design of cargo terminal?

Exercise 3. *Finish the sentences.*

1. The airport should provide the space, facilities and services appropriate for that….

2. ….. consists of the terminal curbs, car park and the road system used for circulation in landside of the airport.

3. The flight interface comprises the connections between the …… and the parked aircraft.

4. In providing a service, the needs of the users or ……. must be considered first and likewise in the design of an airport ….. terminal.

5. While normally hating long waiting times, complicated procedures and long walking distances, they have great interest in ….

6. However, the operation of multiple terminal buildings has a strongly negative influence on…..

7. The ……guiding the passengers to the required facilities should be easy to …... and located at proper positions.

8. The …….. performs the function of cargo processing, including conversion, sorting, ……., facilitation and ………..

9. The location of the cargo terminal can be determined by considering the landside …… , airside …… , separation of freight …… from passenger terminal traffic, layout of airside service roads, and the availability of utilities.

10. The ……. , type of operations (all cargo, combination and belly loads), frequency, and number of aircrafts handled simultaneously on the apron greatly influence the design of the cargo terminal as well.

Exercise 4. *Match the word to the most appropriate translation. Explain your choice.*

1. air mode
a) режим повітряного простору
b) метод роботи у повітрі
c) манера поведінки у повітрі
d) your variant

2. unload payload
a) розвантажувати оплачуваний вантаж
b) позбуватися номінального навантаження
c) знімати з рейсу комерційний вантаж
d) your variant

3. landside
a) зона загального доступу аеропорту
b) прибережна полоса
c) привокзальна зона
d) your variant

4. access interface
a) інтерфейс схеми проїзду
b) зона доступу
c) межа доступу
d) your variant

5. terminal curbs
a) тротуари терміналу
b) бордюри аеровокзалу
c) огорожа вузлової станції
d) your variant

6. circulation in landside
a) циркуляція на привокзальній площі
b) пересування у межах привокзальної зони
c) рух пасажирів у зоні загалного доступу аеровокзалу
d) your variant

7. associated service facilities
a) асоційовані засоби обслуговування
b) допоміжні служби, що взаємодіють
c) дочірні службові приміщення
d) your variant

8. concessions
a) орендовані приміщення
b) концесії
c) поступка
d) your variant

9. passenger boarding device
a) засоби для посадки пасажирів
b) проект пасажиропосадки
c) план посадки пасажирів
d) your variant

10. non-aeronautical commercial activities
a) неавіаційна торгівельна діяльність
b) неповітроплавна комерційна діяльність
c) комерційна діяльність, не пов'язана з авіацією
d) your variant

11. on-time services
a) вчасне обслуговування
b) тимчасове обслуговування
c) послуги надані у розстрочку
d) your variant

12. transfer traffic
a) перевезення із пересадками
b) трансферні перевезення
c) транспорт для трансферу
d) your variant

13. materials handling
a) обробка матеріалів
b) вантаження та розвантаження матеріалів

c) транспортування та транспортна обробка матеріалів
d) your variant
14. inbound transfer
a) вхідний трансферт
b) вхідні перевезення
c) частота прибуття
d) your variant

Exercise 5. *Translate into English.*

Аеровокзал – будівля для обслуговування пасажирів повітряного транспорту в аеропортах. Основне спорудження пасажирського комплексу розташовано в центральній зоні аеропорту; у його склад входять: привокзальна площа із стоянками міського транспорту, перон із стоянками літаків, будівлі перонно-технічних служб, готель, командно-диспетчерський пункт тощо. Обслуговування пасажирів в аеровокзалі передбачає продаж і реєстрацію квитків; прийом, оформлення, комплектування по рейсах і видачу багажу; інформацію про відправлення і прибуття літаків; поштові, побутові, медичні та інші послуги. У аеровокзалі міжнародних аеропортів здійснюються також пограничний паспортний контроль і митний огляд багажу. Залежно від призначення, всі приміщення аеровокзалу об'єднані у 3 групи: пасажирські (операційні зали, зали чекання і посадки, торгівельні зали кафе і ресторану); допоміжного призначення (багажні приміщення, кімната матері і дитини, відділення зв'язку тощо); службово-експлуатаційні (приміщення служби перевезень, інженерно-технічного устаткування тощо). Розміри аеровокзалу залежать від встановленого для даного аеропорту об'єму пасажирських перевезень. <…>

Архітектурно-планувальне вирішення сучасних аеровокзалів підпорядковано технологічній схемі обслуговування пасажирів та організації їх посадки в літаки. Основним приміщенням є операційний зал, площа і характер устаткування якого визначають пропускну спроможність будівлі аеровокзалу. При великій інтенсивності руху літаків, особливо багатомісних, для скорочення часу стоянки літака, забезпечення безпеки і створення зручностей пасажирам планування аеровокзалу передбачає прибудову наземних або підземних перехідних галерей і спеціальних павільйонів, пов'язаних із літаками стаціонарними критими трапами на рівні 2-го поверху будівлі аеровокзалу. Планування аеровокзалу має бути чітким, виключати перетинання і зустріч масових потоків пасажирів й багажу, забезпечувати можливість самостійного орієнтування пасажирів на шляху до / від літаків.

From *http://vseslova.com.ua/*

Exercise 6. *Match the words in column A with those in column B in order to make an appropriate word combination, as in the example:* belly load

A	B
1. processing	a) terminal
2. boarding	b) area
3. car	c) procedure
4. baggage	d) claim
5. departure	e) center
6. passenger	f) management
7. airport	g) costs
8. operating	h) lounge
9. utilizing	i) vehicles
10. freight	j) load
11. belly	k) park

Exercise 7. *Fill in the correct word / word combination from the box below.*

Airline counter, baggage handling and claim, enplaning, terminating traffic, concessionaries, fleet mix, belly load,
materials handling, lobby for circulation and waiting, security checking facilities

1. The recommendations were simple: replace the over-aged and obsolete Argus maritime patrol aircraft without delay, because that capability had huge impact on national security and the maintenance of sovereignty, and, second, undertake technical studies to determine the most cost-effective _____.
2. I was aware that the flight had been cancelled prior to leaving home and had been told I could check at the _____ on arrival and they would sort out another flight. 3. If airline execs would spend a

fiftieth of their time improving freight operations at their airlines rather than attempting to create bedrooms in the sky, the carriers would be in much better shape. Forwarders could sell cargo more successfully. A full _____ of freight is far more profitable than empty first class cabins. 4. Terminal solutions include all necessary facilities, such as check-in counters, _____ stations, security, even restaurants, duty-free shops and car-rental counters. 5. Airport operators ... shall assure that there are lifts, ramps, or other suitable devices for _____ and deplaning wheelchair passengers. 6. The _____ at the new Berlin Brandenburg International Airport BBI are being modified to comply with the new European Union regulations which come into effect on April 2013. The planners have redesigned the terminal to include 32 security lines in a modified configuration, as well as two pavilions on the left and right of the terminal building. 7. A curious dilemma exists in one area of _____. If you use pallets, you face problems of having to store them and maintain some degree of inventory control. If you don't use them, such operations as loading trucks and railcars can prove costly and laborious. 8. Ryanair doesn't offer anything remotely approximating business class on its intra-European network. They're the antithesis of premium, with some of the tightest legroom in the sky. So their premium cabin business would rely solely on _____ in London-Stansted or Dublin. 9. The passenger terminal is a Malay architecture-inspired building which cost P1 billion and is four times larger than the old terminal. It is highly computerized, more secure and has more commercial spaces for _____ at approximately 9,000 sq. meter. 10. The _____ at the Columbia Regional Airport sits empty Thursday afternoon. The airport has filed to recieve a grant that would give it more money to search for a new carrier that would replace Trans States Airlines.

Exercise 8. *Write the correct form of the words in brackets and complete the sentences.*

1. The (walk) distances can be reduced somewhat by proper positioning of the terminal.
2. A large-capacity motor controller and an ATRU, previously installed separately, are now installed into the rack, enabling a reduction in aircraft weight due to reduced electrical wiring, in turn (facilitation) aircraft maintenance work.
3. Pemco World Air Services has entered into an agreement to (conversion) six 737-300 passenger aircraft to freighter configuration for Hainan Airlines, a subsidiary of HNA Group.
4. The Halvorsen Loader is a rapidly deployable, high-reach (mechanization) aircraft loader that can transport and lift up to 25,000 pounds of cargo onto military and civilian aircraft.
5. Manitoba Provincial Nominee Program thanks all persons for their interest in (immigration) to Manitoba and regrets any inconvenience that may result from this change.
6. An Antonov 124 transport aircraft will (departure) the Leipzig/Halle airport in Germany this Friday, 27 August carrying around 100 tons of relief goods to Islamabad.

Exercise 9. *State whether the following statements are true or false. Correct false statements.*

1. The airport is the physical site where a modal transfer is made between air mode and surface mode.
2. The passenger terminal system has three major components: access interface, processing, and flight interface.
3. The facilities in the processing system include only airline counters for ticket issue and check-in.
4. The services under governmental auspices, such as customs, immigration and quarantine, are also included in passenger processing.
5. Visitors and surrounding communities have occasionally been included in the category of airport customers because of aeronautical non- commercial activities in airport terminal buildings.
6. While normally hating long waiting times, complicated procedures and long walking distances, they have great interest in on-time services.
7. The walking distances can be reduced without operating multiple terminal buildings.
8. The operation of multiple terminal buildings has a strongly negative influence on operating costs.
9. The objectives of the community where the airport is located are complex.
10. The fleet mix, type of operations, frequency, and number of aircrafts handled simultaneously on the apron badly influence the design of the cargo terminal as well.

Варіант №2

Read and translate the following text into Ukrainian.

Read and translate the following text into Ukrainian.

How Airports Work

by Craig Freudenrich, Ph.D.

You've probably been to airports many times – they are so familiar you may not pay much attention to them anymore. But if you go behind the scenes, airports are amazing "mini-cities," providing services to all sorts of people and companies. Air travellers, airlines, private pilots and freight carriers all use airports in completely different ways.

Airports <…> have runways, ground concourses, terminals, fuel depots, hangars and a control tower, to name a few.

Generally, airport services can be classified as groundside and airside. Let's take a look at what's involved in each category.

Ground Transportation

An airport can't exist in isolation. It depends on a massive surface-transportation system so that people can get to and from the airport, park and get from place to place within the airport structure itself. While your first thought about an airport is air travel, ground transportation is pretty crucial to an aiport's operation.

The busiest airport in the world is Atlanta's Hartsfield International Airport. Here are some ways ground transportation is critical to that airport:

- Roads allow access to and from the airport: In Atlanta, four interstate highways move traffic to and from Hartsfield. There's also a station for MARTA trains to connect into the city's rapid transit system.
- Parking allows short- and long-term storage of automobiles. Parking can be on or off airport grounds, and some parking systems are run by private vendors under airport regulation. <…>
- Passenger drop-off and pick-up areas make it easier for passengers to get into the terminals, although they are often plagued by traffic congestion because so many people are trying to get in and out.
- Rental car companies serve airports. Hartsfield has eight rental car companies on airport grounds and another three off airport grounds.
- Shuttle services provide passengers with transportation to local hotels and off-site parking facilities. <…>
- Private transportation is available in the form of limousines, vans and taxis.
- Public transportation (such as municipal buses and subways) may have stations at an airport. <…>
- Internal subway trains and trams may be available to help passengers get to the terminal gates from the concourse. <…>

Concourses and *Terminals*

At a busy airport like Atlanta's Hartsfield International, 2,400 flights take off and land every day. That means that, every day, perhaps as many as 300,000 people move through the airport and need certain services. Airports provide those services in their concourses and terminals, the heart of any airport. There you'll find the space for airlines to handle ticket sales, passenger check-in, baggage handling and claims.

While the terms are often used interchangeably, we'll define concourses as the long halls and large, open areas where you'll find shops, restaurants and lounges, and terminals as long halls lined by the gates where you board and disembark airplanes. <…>

Most of the time, and in most airports, concourse areas are accessible to the general public (passengers and non-passengers). The gate areas may be restricted by airport security to ticket-holding passengers only, especially during alerts (for instance, during the Gulf War, non-passengers could not pass security points). Generally, airport security and/or customs lie between the concourse and the gates.
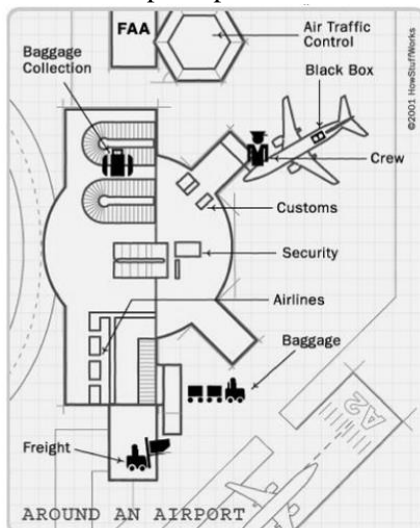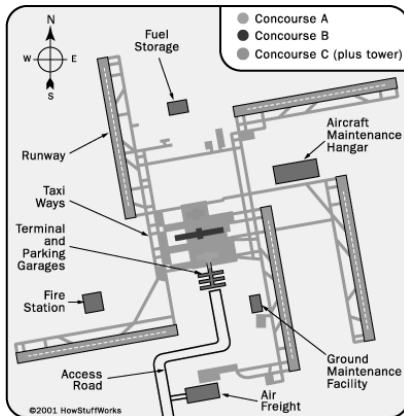
At Hartsfield's concourses, there are:

- 75 <u>food and beverage vendors</u> (most of these are owned and staffed by private companies)
- 82 <u>retail and convenience stores</u> (also owned and staffed privately)
- 21 <u>staffed service outlets</u> (places where you can get your shoes shined or connect to the Internet)

The food that passengers eat while onboard the airplane is usually provided by private companies contracted by one or more airlines at an airport. The food is prepared in a building that is off the airport grounds, shipped to the airport by truck and loaded onto the plane by the catering company's personnel. <…>

<u>Airline freight and private air-freight services</u> such as Fed Ex and DHL may have their own terminals at the airport.

Gates

The gates are where the airplanes park for passenger boarding and <u>deplaning</u>. Passengers wait in the immediate area of each gate to board the plane. Gates are rented by each airline from the <u>airport authority</u>, and some airlines may rent a whole terminal building in their "hub" airport, in which case the rental fee alone can run into the millions of dollars.

Routine airplane maintenance, such as washing, de-icing and refueling, is done by airline personnel while the plane is parked at the gate. In some cases, other maintenance tasks might be performed at the gate, possibly with passengers onboard the plane – it is not uncommon to sit on a plane at the gate while maintenance personnel replace something like a hydraulic brake line on an aircraft.

<u>Airline baggage handlers</u> load and unload baggage at the gates using <u>baggage trucks</u> and <u>conveyors</u>. <…>

Runways

<u>Runways</u> are amazing – a typical one is about 2 miles long, as wide as a 16-lane highway and about 3 feet thick!

<…> Runways have to be specially constructed to take that strain without cracking or, worse, buckling. As they're designing runways, engineers have to consider the number of wheels an airplane has, how far apart those wheels are and the size of the tires. As planes get bigger and bigger, runways have to be re-built to accommodate the increased stresses. <…>

<u>Main runways</u> are usually oriented to line up with the prevailing wind patterns so that airplanes can take-off into the wind and land with it. <u>Local and ground air traffic controllers</u> determine which runways are used for take-off and which for landing, taking into account weather, wind and air-traffic conditions. In some airports, main runways cross each other, so the controllers have to pay even closer attention.

Planes use <u>taxi runways</u> to get from the gate to a main runway for take-off and from a main runway to the gate after landing. <u>Ground controllers</u> direct ground traffic from the airport's tower. Airline ground personnel assist with the <u>push-back and arrival of aircraft</u> in the gate areas, driving the <u>tugs</u> that push the aircraft back and directing traffic <...>

Fuel

<…> In some airports, <u>fuel trucks</u> carry fuel from the <u>storage depot</u> to the airplane for refueling. In others, fuel is pumped through underground pipes directly to the terminals.

Safety

Airports have their own crews to handle fire and <u>emergency medical services (EMS)</u>. An airport may have several <u>fire/EMS stations</u> on the ground because the Federal Aviation Administration (FAA) requires that <u>emergency crews</u> be able to reach the midpoint of a runway within 3 to 5 minutes. The crews are usually employees of the city or municipality and are stationed at the airport.

Airports also have their own <u>police crews</u>. Some airport police are members of the city or municipality assigned to the airport, while others are from private security companies contracted to patrol the airport grounds (such as the perimeter fences that limit access to the airfield) and to operate the security inspection points within the terminals. Finally, airports must have crews for collecting and disposing trash, keeping terminals clean (some <u>janitorial services</u> are run by airlines or airline cooperatives) and keeping runways clear during foul weather.

Without <u>snow-removal crews</u>, aircraft would be grounded whenever a storm hit.

Airport Management

Airports are huge businesses. <…> Commercial airports are publicly owned and generally financed through municipal bonds. Airports typically own all of their facilities and make money by leasing them to airlines, air-freight companies and retail shops and services, as well as by charging for services like fuel

and parking and through fees and taxes on airline tickets. The revenues pay off the municipal debt and cover the operating costs. Airports often require other sources of funding as well, such as airport bonds and government grants. But most airports are self-sustaining businesses once they become operational.

About 90 percent of employees at airports work for private companies, such as <u>airlines, contractors</u> and concessions. Most of the remaining 10 percent work directly for the airport as administrators, terminal- and grounds-maintenance personnel and safety crews. <u>Air traffic controllers</u> are employees of the federal government. Airports have their own departments of finance, personnel, administration and public relations, much like any city or municipality.

From *http://science.howstuffworks.com/*

Exercise 1. *Using a monolingual dictionary of aviation or encyclopedia, please, find the definitions of the following words and word combinations.*

Air traffic controllers, contractors, snow-removal crew, janitorial services, emergency crew, emergency medical services, EMS stations, storage depot, tug, main runway, conveyor, airline baggage handlers, airline freight services, staffed service outlets, retail store, convenience store, beverage vendor, baggage claim, control tower, passenger drop-off area, shuttle service, private transportation, car rental company.

Exercise 2. *Answer the questions.*

1. How can airport services be classified?
2. Why is ground transportation crucial to airport operation?
3. Why do airports need passenger drop-off and pick-up areas?
4. What is shuttle service?
5. What types of vehicles are used for private and public transportation?
6. What are internal subway trains and trams used for?
7. What makes the heart of any airport?
8. What do airlines do at the airports?
9. How are terminals defined?
10. Who are the gate areas restricted to during alerts?
11. Where do airport security and/or customs lie?
12. What will you find at At Hartsfield's concourses?
13. Who may have their own terminals at the airport?
14. What are gates used for?
15. How do airline baggage handlers load and unload baggage?
16. What are the dimensions of a typical runway?
17. Who determines which runways are used for take-off and which for landing?
18. Who directs ground traffic?
19. How do planes get from the gate to a main runway for take-off and from a main runway to the gate after landing?
20. What is the function of airline ground personnel?
21. Where is fuel stored at the airports?
22. What crews and services are found at the airports?
23. Who employs airport staff?
24. What departments do airports have?

Exercise 3. *Match the word in column A with its translation in column B.*

A		B	
1.	control tower	a)	продавець продовольчих товарів
2.	groundside	b)	підрядна організація
3.	shuttle service	c)	наземна зона аеропорту
4.	ticket-holding passenger	d)	обслуговування будівель та споруд
5.	food vendor	e)	точки обслуговування
6.	staffed service outlet	f)	контрольно-диспетчерський пункт
7.	airport authority	g)	оператор авіалінії із обробки багажу
8.	airline baggage handler	h)	човникове сполучення
9.	janitorial service	i)	адміністрація аеропорту
10.	contractor	j)	пасажир із квитком

Exercise 4. *Translate into English.*

Аеропорт містить цілий ряд служб, які мають забезпечити зручність і комфорт пасажирам. До них відносяться: зал очікування; камера схову; автостоянка; кімната матері та дитини; митний пост; прикордонний пост; медичний пункт; довідкова аеропорту.

Якщо Ви цінуєте час і комфорт – ВІП обслуговування в аеропортах України, СНД і Європи для Вас.

Спрощена процедура реєстрації допоможе уникнути черг, суєти і значно заощадить Ваш час.

Комплекс VIP-послуг:

(1) Зустріч та розміщення: індивідуальна зустріч авіапасажира (групи авіапасажирів) або посадка в літак висококваліфікованими фахівцями з організації обслуговування авіаперевезень зі знанням іноземних мов; підвіз пасажирів спеціальним транспортом від / до літака; піднос, розвантаження і завантаження багажу та ручної поклажі від / до транспорту пасажира; проходження паспортного і митного контролю через спеціально обладнані пункти, реєстрація авіаквитків і багажу; розміщення попередньо заявленого автотранспорту замовника під час зустрічі / проводів пасажирів на привокзальній площі; надання окремих приміщень для очікування рейсу.

(2) Послуги в терміналі: надання послуг міського зв'язку, факсу, ксерокса; діти до 12 років, які прямують у супроводі батьків, обслуговуються безкоштовно (крім послуг бара).

(3) В аеропорту перевізник або обслуговуюча організація забезпечує: реєстрацію пасажирів та оформлення багажу і вантажу за маршрутом і на рейс, зазначений у перевізному документі, а також проведення спеціального контролю авіаційної безпеки; зважування багажу та ручної поклажі пасажирів; доставку пасажирів до повітряного судна (від повітряного судна), їх посадку на борт повітряного судна і висадку при прибутті до аеропорту призначення (транзитний аеропорт); доставку багажу і вантажу до повітряного судна і назад, його завантаження на повітряне судно і вивантаження з повітряного судна; проведення митного, прикордонного, а також, при необхідності, санітарно-карантинного, імміграційного, ветеринарного й фітосанітарного контролю під час їх перевезення за міжнародним маршрутом; доставку пасажирів, багажу і вантажу з місця вимушеної посадки в найближчий аеропорт, який не є для Пасажирів аеропортом призначення; користування послугами кімнати матері і дитини батькам з дітьми у віці до семи років і жінкам на другій половині терміну вагітності; візуальна і звукова інформація про виконання рейсів; звукова інформація про правила поведінки на повітряному транспорті; звукова інформація про проведення технологічних процедур з обслуговування пасажирів; безкоштовна видача індивідуальних довідок про рух повітряних суден; позачергова посадка в повітряне судно інвалідів та пасажирів з дітьми дошкільного віку; медичні послуги аеропорту.

From *http://tickets.ua/*

Exercise 5. *Underline the correct word or word combination.*

1. Founded in 1946 with six officers and a sergeant, the Los Angeles Airport (police crew | emergency crew | snow-removal crew) have provided law enforcement services to the airports of the City of Los Angeles.

2. (Taxi runway | Main runway) will reopen officially on Tuesday at an 11 a.m. EDT ceremony. It has been repaved with concrete instead of less-durable asphalt and widened to accommodate today's bigger planes.

3. When you arrive at the terminal, one of our courteous English speaking drivers will welcome you with a "Paris (internal subway train | public transportation | shuttle service)" sign. He will wait for you even if your flight is delayed and will take you to your hotel in Paris in a comfortable air-conditioned vehicle.

4. Shortly after the two-hour flight departed from the Ninoy Aquino International Airport (NAIA), an anonymous caller told the airlines customer service call center that a bomb was on the plane. Passengers on the flight were asked to (board | deplane | disembark) the plane immediately after it landed at Kota Kinabalu.

5. The one thing missing in the Louis Vuitton stable was a travel (retail store | staffed service outlet | convenience store), and the mighty French luxury giant has finally obliged. The first outlet will be opened at Incheon International Airport, Korea, by late 2011.

==Варіант №3==

Read and translate the following text into Ukrainian.

Flight Check-in Procedure

Security Control

Important Points to Be Complied with by Passengers Prior to Flight

- When purchasing your tickets, do not forget to learn the time you need to be at the airport prior to your flight.
- To avoid any problems during security checks, make sure you do not have any of the prohibited objects in your hand luggage.
- For your own safety, please prepare your luggage on your own and do not accept any request coming from other people for you to carry any object to be delivered to somebody else.
- You may get more information from the airline regarding safety procedures for the departure and destination country.

For Your Safety: Please do not leave your luggage unattended. Unattended luggage will be exterminated by the security staff. Avoid joking about having weapons or explosives with you.

Visa Procedures

Visas are obtained from the embassies or consulates of the destination countries. Each country may have different procedures regarding information and documents required.

Transfer / Transit Passenger

Transfer Passengers: (International Transfer Passengers with a Domestic Connection Flight) Passengers arriving from abroad are subject to visa and passport controls to enter the country at the Arrivals Floor before they proceed for their domestic connection flight. The passenger then proceeds to the Domestic Terminal and finalize his/her transfer procedure at the relevant lounge by presenting his/her boarding card issued at the origin country. If a boarding card is not issued at the origin airport then the passenger needs to go through check-in at the Domestic Terminal. If your journey continues on a different airline, please ensure that you have the relevant information on whether or not you need to claim your luggage and check your ticket. According to their procedures, some airlines transfer the luggage automatically onto the connection flight. Therefore, the passenger does not have to claim their luggage in between flights. Please ensure that your luggage is labelled until your final destination to ensure that it is not left in the terminal.

Transfer Passengers: (International Transfer Passengers with an International Connection Flight) A boarding card is issued for the passenger (if not issued at the origin country) at the transit desk of the relevant handling company on the arrivals floor. The passenger does not go through the passport control. Instead, directly proceeds through the transit area into the international departures area. Baggage will be automatically transferred to the connecting flight.

Transit Passengers: (Domestic Transfer Passengers with an International Connection Flight) Passenger arriving on a domestic flight to continue flying abroad proceed to the International Terminal and finalize his/her transit procedures by going through the passport control with the boarding card issued in the origin country and going to the relevant lounge. If a boarding card is not issued then one should be obtained at the International Check-in counters. Please ensure that your luggage is labelled until your final destination to ensure that it is not left in the terminal.

Transfer Passengers: (Domestic Transfer Passengers with a Domestic Connection Flight) If a passenger arrives on a domestic flight and has a domestic connection flight, she/he proceeds to the Domestic Terminal Isolated Area and then into the relevant lounge provided that he/she has a boarding card for the entire journey and that the baggage is checked in until the final destination. If the baggage is not checked in until the final destination and/or he/she has not got a boarding card then he/she claims the baggage and goes through check-in again at the relevant counter within the Departures Lounge.

Transit Passengers:(Passengers Continuing Their Journey On The Same Flight) Should the grounding time of the relevant flight be excessively long; both international and domestic transit passengers are issued a transit card and taken to the transit lounge. They are taken back on board the same aircraft once refuelling and/or maintenance procedures are complete. Should the grounding time not be sufficient, the passengers remain on board. Refuelling is done while passengers wait on board. Baggage remains in the aircraft during transit flights.

Check-in

Passengers are requested to arrive at the airport for check-in 1.5-2 hours prior to domestic flights and 2 hours prior to international flights.

Please ensure that you have your ticket, valid passport and ID with you when coming to the airport. Passengers with no ID will not be accepted on board. It is obligatory for all passengers, including children

and infants, to present their ID during check-in procedures. Passengers traveling with electronic tickets must ensure that they know the _PNR number_ and that they present a valid ID.

Baggage restrictions may vary for each airline. Information regarding the number of bags and weight limitations can be obtained from the airline with whom you are traveling. _Electronic Information Monitors_ above the counters and _Flight Information Screens_ within the terminal display details on which counters at which you can check in.

Passengers must go to the relevant check-in counter with their ticket, picture ID (valid passport, ID card, _driving license_, _marriage certificate_) and luggage if applicable. Should a visa be required for the destination country, the passport should have the valid visa. A label displaying the passenger's name, telephone and address must be put on the luggage.

Check-in staff must be advised of any hand luggage which should be labelled as _cabin luggage_. Check-in staff checks the information on your documents and issues a boarding card and _baggage label_ as he/she accepts your baggage. The baggage label is stuck on the ticket and handed over to the passenger. A larger baggage label is tied to the baggage and sent to the aircraft. The check-in procedure is finalized when the check-in staff hands over the ticket, ID and the boarding card to the passenger. The boarding card displays details such as the _flight number_, _departure gate No_., _boarding time_ and _seat number_.

Check-in Counters

The _Check-in desk_ opens approximately 1.5-2 hours before take-off… Please track your flight on the _flight detail screens_.

Baggage

Baggage is defined as appropriate or necessary objects, items and other _personal assets_ for the passengers clothing, usage or comfort.

For your own safety please check if there are any dangerous items in your baggage.

Please pack your own baggage or survey the _packing procedure_ for your own safety. When packing your baggage please take care of checking all sealed boxes, packages and wrappings. Additionally do not accept any kind of object to take to someone else if you don't know what the content is.

Always carry jewellery, money, cell phones, computers, documents and other valuable goods in your hand luggage.

Your baggage may not be accepted on the flight in following situations:
- o   If it may cause danger to the plane, the passengers or other freight.
- o   If it is not packed in order to be transported in an appropriate and safe way.
- o   If it contains freight forbidden by the law of the country of origin, of destination or countries of air passage.
- o   If its _dimensions_ aren't appropriate.

Please get information from the airline you have chosen about to which point your baggage is going to be labelled to and check with your ticket. Please adjust a label on your baggage containing your name, surname, telephone number and address information. You may obtain labels from your _airlines counter_.

Do not leave labels from previous flights on your baggage.

Don't forget that goods in sacks, nylon bags, tin boxes, metal barrels and other freights which cannot be carried as baggage will not be accepted to the planes baggage department or inside the cabin. Don't forget that pocketknives, knives, nail scissors or clippers, lighters and other cutting, piercing or explosive items are unfavourable inside the cabin for safety reasons and will not be accepted. Do not carry such items with you.

Do not extend weight or dimension limits or your baggage might be damaged or the grip might be detached while carrying. Don't forget that you will have to pay an additional fee for _extending your carrying privilege_.

Procure your baggage admitting procedure in your own name and check the information on the _label coupons_ given to you in change for your baggage.

Pullman case

handle

frame

identification tag

pull strap

trim

wheel

Do not take charge for baggage that is not your own.

During a possible baggage checking procedure before boarding the plane please show your baggage to the appointed clerks.

At your destination: Be careful not to take similar luggage to your own by mistake when retrieving your baggage from the delivery belt.

For _non-retrievable luggage_ or any kind of damage noticed instantly at the destination, present your travelling information, baggage labels and identity card or passport when consulting the _Lost and Found Office_ before
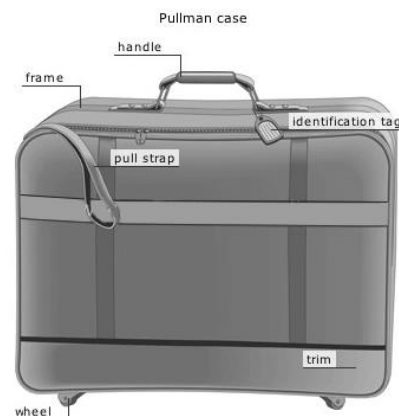
leaving the airport.

For any kind of damage or missing items that weren't noticed instantly while retrieving your baggage, consult the responsible airline within 7 days.

Hand Luggage Arrangements

Cabin Luggage is the luggage that the passenger takes with him / her into the aircraft under his/her supervision and responsibility.

Liquid Restriction: Each liquid amount in hand luggage must not exceed 100ml. These liquids must be carried separately in 1 (one) liter capacity 20cm x 20cm clear sealed bags. Each passenger is allowed to carry only 1 (one) bag. Medicines (with prescriptions and in original packages) and baby food are exempt from this condition.

Liquids: Drinks such as water or cola, syrup, creams, lotions, oils, perfumes, make-up items (liquid lipstick, mascara etc.), toothpaste, shaving gel and mousse, hair gels, deodorants, contact lens solutions, shampoos, items such as jam, honey, yogurt.

Duty-Free: All liquid commodities purchased from Duty-Free stores must be carried in special clear bags, sealed and with their receipts. Please do not open the sealed bags until you reach your final destination. Otherwise, the contents of the bags may be confiscated at the Security Check Points. If you have a connection flight within the European Community or United States, it is not permitted to carry any previously purchased duty-free products (over 100ml) as hand luggage even in sealed bags.

Pre Check-In Desks

These are desks used by tourism agencies and other organization companies in an effort to collect their high number of passengers before check-in, to hand out the official documents regarding their trip and to give information and directions. If you are part of a group travelling you can ask for the number of the pre check-in desk at your agency.

From *www.ataturkairport.com*

Exercise 1. *Using a monolingual dictionary of aviation or encyclopaedia, please, find the definition of the following words and word combinations.*

Pre check-in desk, security check points, duty-free, liquid commodities, confiscate, liquid restriction, lost and found office, non-retrievable luggage, label coupons, carrying privilege, airlines counter, dimensions, packing procedure, personal assets, flight detail screen, check-in desk, departure gate, cabin luggage, driving licence, marriage certificate, flight information screen, electronic information monitor, PNR number, electronic ticket, transit card, departures lounge, domestic terminal isolated area, handling company, boarding card, arrivals floor, subject to, prior to, transit passenger, transfer passenger, consulate, weapon, security check, safety procedure.

Exercise 2. *Say whether the following statements are true or false. Correct false statements.*

1. When you are buying your ticket you should check the time you need to arrive before the flight itself.
2. If you need to learn about safety procedures at the departure airport or the airport of entry, you should contact your travel agent.
3. If you wish to have fun during your flight, tell the customs officer you have explosives and weapons.
4. You can obtain visa from your local embassy or consulate.
5. If you are a transfer passenger you will have to go through passport and visa check every time you change flight.
6. Transit passengers spend time waiting for the embarkment at the Domestic Terminal Isolated Area.
7. Those who travel with electronic tickets should know their ID numbers.
8. Baggage restrictions are displayed at Electroic Information Monitors.
9. At the check-in desk passengers present their ticket, picture ID and luggage.
10. Check-in staff sticks a label displaying the passenger's name, telephone and address.
11. Personal assets should be kept in a luggage.
12. If your luggage is overweight you will be charged additional fee.
13. You should contact Lost and Found office only if your bag is lost.

14. You can carry with you as much liquid as you have as long as the bottle does not exceed one litre.

15. If at the destination country airport you open your duty-free purchase, you may get it confiscated.

16. Pre check-in desk is usually located at the gates and its aim is to inform the passengers of the boarding procedure.

Exercise 3. *Match the word in column A to its synonym in column B.*

A	B
liquid commodity	place of arrival
confiscate	lake
prior to	under the condition that
subject to	forfeit
dimensions	before
boarding card	size
destination country	boarding pass

Exercise 4. *Study the following words that appear in legal documents. Find when they are used. Use an appropriate word from the box to complete each sentence.*

Hereby, hereinafter, therefore, hereto, herewith, subject to, in consideration of

1. It is _____ essential that we appoint a lead contractor with the relevant expertise, and in Lagan Construction we have one of the most experienced airfield construction companies. 2. The Licensor _____ grants to You a Non-Commercial, No-Endorsement, payment-free, non-exclusive licence for the duration of copyright in the Work to copy and/or Share the Work and/or create, copy and/or Share Derivative Works on any platform in any media. 3. The St. Tammany Parish Council _____ delegates, authorizes and empowers the Board of Airport Authority No. 1 to establish and promulgate regulations consistent _____. (Ord. No. 81-192, adopted 05/07/81). 4. Makeup is _____ the same liquid and gel rules as all other substances – so if you're bringing liquid mascara, lip gels (such as Blistex) or other liquid- or gel-like items, they will need to be placed in your quart-size plastic bag in 3.4-ounce or smaller containers. Lipstick, powders, solid lip balms (such as Chapstick) and other solid beauty products are not _____ the rules, and may be carried in your hand luggage without restriction. 5. In terms of Total Airport Management (TAM) and CDM (Collaborative Decision Making) TOP is a support tool, optimizing the use of airport resources _____ stakeholder needs and targets. 6. Airport, _____, "*Airport*," in accordance with all of the terms and conditions provided herein. 7. This agreement contains the entire understanding of the parties and may be amended, modified or terminated only by the express written agreement signed by all of the parties _____.

Exercise 5. *Translate into English.*

Наказом Державної митної служби України від 18.02.06 № 137 затверджені Правила застосування спрощеного порядку здійснення митного контролю предметів, що переміщуються громадянами, які прямують авіаційним транспортом, і зареєстровані в Міністерстві юстиції України 01.03.06 № 217/12091 (далі – Правила).

Відповідно до пункту 1.2 цих Правил:

„зелений" коридор – зона спрощеного митного контролю, яка є частиною зони митного контролю на території (у приміщенні) аеропорту, облаштована належним технічним та інформаційним обладнанням і призначена для здійснення в спрощеному порядку митного контролю товарів, що переміщуються громадянами через митний кордон України, не підлягають обов'язковому письмовому декларуванню, а також оподаткуванню й на переміщення яких через митний кордон України не встановлено заборон або обмежень;

„червоний" коридор – частина зони митного контролю на території (у приміщенні) аеропорту, призначена для здійснення в установленому законодавством порядку митного контролю та митного оформлення товарів, що переміщуються громадянами через митний кордон України, підлягають обов'язковому письмовому декларуванню, а також оподаткуванню чи на переміщення яких через митний кордон України встановлено заборони чи обмеження.

Згідно із зазначеними Правилами спрощений митний контроль застосовується як при в'їзді громадян на митну територію України, так і при виїзді за її межі. <…>

За рішенням посадової особи митного органу може здійснюватися вибірково митний контроль предметів, що переміщуються громадянами в ручній поклажі та/або супроводжуваному багажі, з

розпакуванням місць багажу та/або із застосуванням технічних засобів митного контролю (металодетекторів, інтроскопів тощо).

На вимогу посадової особи митного органу громадянин зобов'язаний пред'явити вміст ручної поклажі та/або супроводжуваного багажу.

Ретельний огляд предметів здійснюється в спеціально відведених для цього приміщеннях митного органу.

Громадянин самостійно приймає рішення про проходження спрощеного митного контролю чи митного контролю з поданням митної декларації – „зеленим" чи „червоним" коридором.

Порядок ввезення громадянами на митну територію України товарів та особистих речей регулюється Законом України від 13.09.01 № 2681 „Про порядок ввезення (пересилання) в Україну, митного оформлення й оподаткування особистих речей, товарів та транспортних засобів, що ввозяться (пересилаються) громадянами на митну територію України" (далі – Закон).

Відповідно до положень Закону звільняються від оподаткування при ввезенні на митну територію України громадянами в супроводжуваному багажі:

- товари, сумарна митна вартість яких не перевищує 200 євро, а загальна вага не перевищує 50 кг;

- горілчані вироби у кількості 1 л, вино – 2 л, пиво – 5 л, тютюнові вироби – 200 цигарок (або 200 г цих виробів);

- особисті речі.

From *Правила проходження митного контролю*

Unit V. Aerodrome

Text 1

Read and translate the following text into Ukrainian.

Airside Design

It is customary to divide the airport facilities into two sections; airside and landside. Airside being the area for the aircraft movement includes <u>runways</u>, <u>taxiways</u>, <u>aprons</u> and <u>gates</u>. Landside consists of the areas for the movement and processing of passengers and cargo inside the building, curbsides of the terminal building for building entry, and the road system accessible to the terminal building.

That is, landside includes a wide range of <u>access roads</u> around the terminal building, car parks, and the terminal building itself (including piers but excluding gate areas). The two most important components among the airport facilities themselves are the runways and the terminals. The airport configuration generally means the number and orientation of runways and the location of the terminal area relative to the runways. The number of runways and the size of terminal building depend on the volume of traffic.

In designing an airside, the following factors should be considered; safety and efficiency related to aircraft operations, noise and other environmental impacts on the surrounding land, and the capacity and technical level applied in the <u>nav-aids facilities</u>. <…>

Runways and Taxiways

Runway direction needs to be determined at the initial stage of airport design, and is usually influenced by several factors, such as <u>prevailing wind patterns</u>, area available for <u>airport development</u>, land-use around the airport and <u>airspace restrictions</u> <u>in the vicinity of</u> the airport.

Following this decision, the configuration of runways and taxiways should be determined with consideration for the safety and efficiency of aircraft operation. With regards to safety, the runways and taxiways should be arranged so as to provide adequate separation between aircraft in the <u>air traffic pattern</u>. The configuration should be decided considering the <u>interference</u> and <u>delay</u> in landing, taxiing and takeoff operations. As for efficiency, the taxiway distance from the terminal area to the ends of the runways should be as short as possible, and the taxiways should be designed in order that landing aircraft can exit the runways as quickly as possible and follow the shortest possible routes to the terminal area.

If an airport has two or more runways, there are several options for runway configurations. The basic configurations are <u>parallel, intersecting</u> and <u>open-V runways</u>, while most are combinations of several of these configurations. The capacity of parallel-runways depends on the <u>spacing between the runways</u> as well as the number of runways.

The US FAA classifies the spacing between parallel runways into three categories; close, intermediate, and far. <u>Close parallel runways</u> are spaced from 700 ft to 2,500 ft. With this configuration, operation of one runway is dependent upon the <u>operating conditions</u> of the other runways according to <u>IFR condition</u>. <u>Intermediate parallel runways</u> have a spacing of 2,500-4,300 ft between runways, allowing an arrival on one runway to occur independently of a departure on the other runway according to IFR condition. <u>Far parallel runways</u> are spaced farther than 4,300 ft apart, allowing the runways to be operated independently for both arrivals and departures.

Intersecting runways are two or more runways in different directions that cross each other. This kind of configuration is necessary when strong winds are prevalent from more than one direction. When the wind from a certain direction is strong, only one runway of a pair of intersecting runways can be used. When the winds are relatively light, both runways can be used simultaneously. The <u>capacity</u> of intersecting runways depends on the position of intersection. The farther the intersecting position is from the takeoff end and the landing threshold, the lower the capacity. When the intersecting position is located close to the takeoff end and the landing threshold, the capacity can be maximized.

Open-V runways feature runways in different directions, which do not intersect each other. Like intersecting runways, open-V runways can only work as a single runway when winds are strong from one direction, while both runways may be used simultaneously when the winds are calm or light enough. The highest capacity is achieved when operations are away from the V intersection. To maximize capacity the single direction runway configuration is ideal as it is less complex than a multiple direction configuration for air traffic control, particularly in the routing of aircraft around the airport. The intersecting runway configuration is the worst for air traffic control, but if it is unavoidable, it is recommended to try to place

the intersection of both runways as close as possible to their <u>thresholds</u> and to operate the aircraft away from the intersection.

The basic function of a taxiway is to provide access between the runway and the terminal building or other facilities for ground services. For the efficient flow of the <u>operated aircraft</u>, taxiways should be arranged so that the <u>incoming</u> and <u>outgoing aircraft</u> do not interfere with each other in the taxiways. If possible, it is preferable that the taxiway is direct, straight and uncomplicated. If it is expected that the taxiing traffic is able to move simultaneously in both directions, a <u>parallel one-way taxi route system</u> is desirable for safety and efficiency. The minimum separation between parallel taxiways is determined by the wingspan of the largest aircraft. The taxiway system should be designed with consideration for the volume of traffic, the runway configuration, and the location of the terminal building and other facilities.

Holding Bays and Terminal Aprons

<u>Holding bays</u>, located at or near the ends of the runways, are the spaces used for the <u>final check</u> prior to take-off or for awaiting <u>take-off clearance</u>. They can also be used by departing aircraft to <u>bypass</u> another aircraft that is not allowed to proceed with take-off for some reasons. As the functions of holding bays are to reduce interference between departing aircraft and to minimize delays, they should be large enough to allow one aircraft to bypass another aircraft. The size of the holding bay area for waiting aircraft will depend on the largest type of aircraft operated in the airport. It is desirable that the holding bays enable the departing aircraft to enter the runway at an angle of less than 90° and as close to the end of the runway as possible.

The <u>terminal aprons</u> are relatively small in area and are located adjacent to the terminal building. They are used for aircraft parking while fueling, <u>light maintenance</u>, loading and unloading of passengers and cargo. At an airport where the number of gates is insufficient, aircraft are held at the terminal apron until a gate becomes available. The design of the terminal aprons is determined by the configuration of the terminal, and the physical characteristics and <u>movement characteristics of the aircraft</u> to be served. In addition, the safety and the protection of passengers from <u>propeller wash</u>, <u>blast</u>, heat, noise and fumes should be considered because these aprons are located near the terminal building.

Relative Location of Terminal to Runways

The key to connecting terminals to runways is for the aircraft to have the shortest possible taxiing distances. For single runway systems, it is desirable to locate the terminal around the middle of the runway with the distance secured for safety, if it may be assumed that the number of takeoffs and landings will be about equal in both directions. With the parallel runway system, the ideal terminal location is in the center of the runway system. If the airport has an open-V runway configuration, the desirable location will also be between the runways. In any case, the terminal area should be located so that aircraft do not pass directly over the area at very low altitudes.

From *TIA*

Exercise 1. *Using a monolingual dictionary of aviation or encyclopedia, please, find the definition of the following words and word combinations:*

Runway, taxiway, gates, access road, apron, vicinity, intersectig, threshold, route system, bypass, blast, traffic pattern, capacity, clearance, holding bay, movement characteristic, open-V runway, holding bay, IFR condition, final check, propeller wash.

Exercise 2. *Answer the questions.*

1. What does airside include?
2. What does landside include?
3. Which factors should be considered in designing the airside?
4. What is of great importance in providing the adequate separation between aircraft?
5. What are the basic runway configurations?
6. What does the capacity of parallel runways depend on?
7. What are the three categories of the spacing between parallel runways according to US FAA?
8. What factors determine the configuration of close parallel runways?
9. How the capacity of intersecting runways depends on the position of intersection?
10. Where is it recommended to place the intersection of runways?
11. How the taxiways should be arranged in order to provide the efficient flow of the operated aircraft?
12. What system is desirable for safety and efficiency of the taxiing traffic?
13. What the holding bays and terminal aprons are used for?

14. What the design of the terminal aprons is determined by?

Exercise 3. *Finish the sentences.*

1. Airside being the area for the aircraft movement includes...
2. Runway direction is usually influenced by several factors, such as...
3. The configuration of runways and taxiways should be decided considering...
4. The capacity of parallel-runways depends on...
5. Operation of one runway is dependent upon the operating conditions of the other runways according to...
6. For the efficient flow of the operated aircraft, taxiways should be arranged so that...
7. If it is expected that the taxiing traffic is able to move simultaneously in both directions, a parallel ... is desirable for safety and efficiency.
8. Holding bays are the spaces used for...
9. The design of the terminal aprons is determined by the configuration of the terminal, and the physical characteristics...
10. The safety and the protection of passengers from ... should be considered because these aprons are located near the terminal building.

Exercise 4. *Say whether the following statements are true or false. Correct false statements.*

1. Airside includes a wide range of access roads around the terminal building, car parks, and the terminal building itself.
2. Runway direction is usually influenced by several factors, such as nav-aids facilities.
3. The runways and taxiways should be arranged so as to provide adequate separation between aircraft in the air traffic pattern.
4. The basic configurations are parallel, intersecting and open-V runways, while most are combinations of last two of these configurations.
5. Close parallel runways are spaced from 700 ft to 2,500 ft. With this configuration, operation of one runway is dependent upon the operating conditions.
6. Far parallel runways do not allow the runways to be operated independently for both arrivals and departures.
7. The capacity of intersecting runways depends on the position of intersection.
8. It is recommended to place the intersection of both runways as far as possible to their thresholds and to operate the aircraft away from the intersection.
9. Taxiways should be arranged so that the incoming and outgoing aircraft do not interfere with each other in the taxiways.
10. Holding bays, are used by departing aircraft to bypass another aircraft that is not allowed to proceed with take-off for some reasons.
11. The design of the terminal aprons is determined by the configuration of the terminal without paying attention to the physical characteristics and movement characteristics of the aircraft.
12. The safety and the protection of passengers from propeller wash, blast, heat, noise and fumes should not be considered because these aprons are located far from the terminal building.

Exercise 5. *Choose the most appropriate translation if any or introduce your own variant of translation. Explain your choice.*

1. wide range of access roads
a) різноманітний спектр доріжок доступу;
b) велика кількість під'їзних доріжок;
c) широкий діапазон шляхів для проїзду;
d) your variant.
2. airspace restrictions in the vicinity if the airport
a) повітряний простір поблизу аеропорта з особливим режимом польотів;
b) обмеження повітряного простору поблизу аеропорта;
c) обмежений режим польотів поблизу аеропорта.
d) your variant.
3. air traffic pattern
a) схема руху повітряних суден;

b) режим повітряного руху;

c) схема повітряного руху;

d) your variant.

4. interference and delay in landing

a) накладка та затримка при посадці;

b) непередбачені обставини та затримки при здійсненні посадки;

c) завади та затримки під час посадки;

d) your variant.

5. open-V runway

a) V-подібне розташування злітно-посадкових смуг (без їх взаємного перетину);

b) відкрите V-подібне розташування злітно-посадкових смуг;

c) відкрита злітно-посадкова смуга V-подібної форми;

d) your variant.

6. spacing between the runways

a) відстань між злітно-посадковими смугами;

b) розташування між злітно-посадковими смугами;

c) площина між злітно-посадковими доріжками;

d) your variant.

7. operating conditions

a) умови роботи;

b) експлуатаційні кондиції;

c) режим експлуатації;

d) your variant.

8. IFR condition

a) положення правил польоту за приладами;

b) умови, за яких здійснюється дозаправка паливом у повітрі;

c) режим польоту за приладами;

d) your variant.

9. parallel one-way taxi route system

a) паралельна одностороння система траєкторії вирулювання;

b) система паралельної односторонньої траєкторії рулювання;

c) система паралельно розташованих траєкторій вирулювання, що спрямовані в одну сторону;

d) your variant.

10. take-off clearance

a) дозвіл на відправлення;

b) дозвіл на зліт;

c) дозвіл на запуск;

d) your variant.

11. light maintenance

a) незначний ремонт;

b) технічне обслуговування та незначні ремонтні роботи;

c) дрібні ремонтні роботи;

d) your variant.

12. movement characteristics of the aircraft

a) характеристики руху літака;

b) характеристики маневреності повітряного судна;

c) якісні характеристики повітряного судна;

d) your variant.

Exercise 6. *Fill in the correct word or word combination from the box below.*

> capacity, volume of traffic, spacing between the runways, landing threshold, parallel runway system, prevailing wind patterns, propeller wash, multiple direction configuration, holding bays, terminal aprons, open-V runways, air traffic pattern, access roads, intersecting runways, operated aircraft

1. Landside includes a wide range of _____ around the terminal building, car parks, and the terminal building itself.

2. Runway direction is usually influenced by _____, land-use around the airport and airspace restrictions in the vicinity of the airport.

3.	The runways and taxiways should be arranged so as to provide adequate separation between aircraft in the _____.

4.	The capacity of parallel-runways depends on the _____ as well as the number of runways.

5.	_____ are two or more runways in different directions that cross each other.

6.	The _____ of intersecting runways depends on the position of intersection.

7.	The farther the intersecting position is from the takeoff end and the_____, the lower the capacity.

8.	_____ can only work as a single runway when winds are strong from one direction, while both runways may be used simultaneously when the winds are calm or light enough.

9.	To maximize capacity the single direction runway configuration is ideal as it is less complex than a _____ for air traffic control.

10.	For the efficient flow of the_____, taxiways should be arranged so that the incoming and outgoing aircraft do not interfere with each other in the taxiways.

11.	The taxiway system should be designed with consideration for the _____, the runway configuration, and the location of the terminal building and other facilities.

12.	_____ should be large enough to allow one aircraft to bypass another aircraft.

13.	The design of the _____ is determined by the configuration of the terminal, and the physical characteristics and movement characteristics of the aircraft to be served.

14.	The safety and the protection of passengers from _____, blast, heat, noise and fumes should be considered.

15.	With the _____, the ideal terminal location is in the center of the runway system.

Exercise 7. *Translate into English.*

Аеродром «Вінниця» (Гавришівка) розташований у 7,5 км на схід від залізничної станції м. Вінниця. Має зручну транспортну розв'язку (автомобільну та залізничну) для перевезення пасажирів і вантажів як по Україні, так і за її межами (з Ізраїлю, Росії та Туреччини).

Довжина бетонної злітної смуги 2,5 км. Аеродром придатний для експлуатації літаків цілий рік без обмежень цілодобово. Забезпечує зліт, посадку і керування повітряних суден індексу 6, категорії 4D та нижче (Боїнг-737. Аеробус А320, Ту-154, Іл-76, Ан-74, Ан-12).

Вінницький аеропорт збудовано у 1983 році. Регулярні рейси виконувалися до 1999 року, далі аеропорт працював, приймаючи лише окремі чартери.

Частково аеропорт використовується військовими.

У 2008 році проведено реконструкцію аеровокзального комплексу, штучної злітно-посадкової смуги та перону. Цього ж року було відкрито пункт пропуску через державний кордон для повітряного сполучення, отримано необхідні сертифікати, прийняті міжнародні рейси. В концепції відновлення провноцінного життя аеропорта Вінниця розглядається зокрема як найближчий і найзручніший шлях до памяток Умані, Бердичева, Кам'янця-Подільського та інших міст.

У травні 2008 Міністерство транспорту та зв'язку видало ліцензію аеропорту «Вінниця» на обслуговування внутрішньодержавних пасажирських авіарейсів, а вже у грудні Кабінет Міністрів відкрив міжнародний пункт пропуску через державний кордон для повітряного сполучення в аеропорту. 15 жовтня 2010 вінницький аеропорт прийняв перший літак авіарейсу «Вінниця—Лодзь—Вінниця» з офіційною делегацією Лодзького воєводства на борту.

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