

FACULTY OF TRANSPORT, MANAGEMENT AND LOGISTICS
LOGISTICS DEPARTMENT

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TYPICAL PRACTICAL SITUATION TASKS

on the subject « AVIATION MANAGEMENT »

Educational degree: «Bachelor»

Educational Professional Program: “Aviation Logistics”

Field of study: 07 “Management and Administration”

Specialty: 073 “Management”

Developed by: Senior Lecturer Myroslava SEMERIAHINA

TASK 1. Forecast in aviation management by Holt-Winters method

In the table 1 presents quarterly data on the volume of freight traffic for three years.

Table 1 Air freight flow data

Year	Quarter	Period, t	Air freight flow y_t, τ
1	I	1	300
	II	2	320
	III	3	325
	IV	4	295
2	I	5	310
	II	6	325
	III	7	340
	IV	8	305
3	I	9	315
	II	10	335
	III	11	350
	IV	12	310

TASK 2. Inventory Control System (Q-System and T-System)

Build six deliveries used Inventory Control System (Fixed-Order Quantity System and Fixed-Time Period System), when the Basic Data is:

- Demand 91 250 units per year;
- Fixed Order Cost is 500 UAH;
- Storage Cost is 0.04 UAH per day;
- Delivery Lead Time is 3 days;
- Delay Time of Delivery is 2 days per 1, 2 and 4 deliveries;
- Period of Control is 365 days.

TASK 2. Mixed Inventory Control System (Replenishment Inventory System and Max-Min Inventory System)

Build six deliveries used Inventory Control Systems (Replenishment Inventory System and Max-Min Inventory System), when the Basic Data is:

- Demand 91 250 units per year;
- Fixed Order Cost is 500 UAH;
- Storage Cost is 0.04 UAH per day;
- Delivery Lead Time is 3 days;
- Delay Time of Delivery is 2 days per 1, 2 and 4 deliveries;
- Period of Control is 365 days.

TASK 2. Choice of service provider in aviation management

You are the head of the cargo department of the airline. Your airline is planning to open a flight on a new route. Task:

Choose an airline.

Select the airport to which the flight opens.

Identify a minimum of three cargo handling companies at this airport.

Define one relay criteria, at least three quantitative criteria and qualitative criteria. Determine the rank for each criterion, taking into account the opinions of the CEO, CFO and your opinion.

Evaluate the selected cargo handling companies according to the specified indicators.

Choose a cargo handling provider based on Integrated rate method.

TASK 3. Pivot table in aviation management

Solve the next task:

I. Create pivot table of information of monthly summary quantity of arrival passengers for each airline.

II. Create pivot table of information of monthly summary quantity of arrival passengers to Boryspil from each departure airport.

III. Identify the most popular type of aircraft for UIA flights.

IV. Identify the airline with the highest traffic load.

A pivot table allows you to extract the significance from a large, detailed data set.

The information of departure and arrival flights via airport “Boryspil” are presented in file Task_8. The information of codes and name of airlines and the information of codes and name of airport are present in file Codes of Airlines and Airports.

TASK 4. Determination of the airline's access rights to air transportation

According to the initial data, determine the “freedoms of the air” along the route.

ROUTE	Commercial Rights		
	1 st point	2 nd point	3 rd point
Honolulu - Denver - Quebec	Load	Unload and Load	Unload