

② Minutes of Meeting

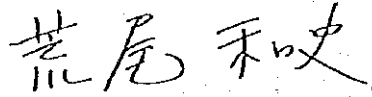
MINUTES OF MEETINGS  
ON  
SCOPE OF WORK  
FOR  
THE STUDY  
FOR  
THE AIR TRANSPORTATION DEVELOPMENT  
IN  
THE REPUBLIC OF UZBEKISTAN

AGREED UPON BETWEEN  
UZBEKISTAN AIRWAYS  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY

Tashkent, December 13th, 1996



Mr. Valeri TYAN  
First Deputy Director General  
Uzbekistan Airways



Mr. Kazuhito ARAO  
Leader  
Preparatory Study Team  
Japan International  
Cooperation Agency

The Japanese Preparatory Study Team ( hereinafter referred to as "the Team"), organized by the Japan International Cooperation Agency ( hereinafter referred to as "JICA") and headed by Mr. Kazuhito ARAO, Director, Office for Airport Construction Market Access, Civil Aviation Bureau, Ministry of Transport, visited the Republic of Uzbekistan from 27th November to 14th December, 1996, in connection with the study for " The Air transportation Development in the Republic Uzbekistan" ( hereinafter referred to as "the Study").

Main issues discussed by both sides are as follows:

1. The Uzbekistan side agreed with the necessity to establish a long term plan for modernization of air transport in the Republic of Uzbekistan.

The Uzbekistan side also hopes that constructive recommendations will be made by the Japanese side in the course of the Study.

2. The airports to be formulated master plan for year 2020.

Though the airports to be formulated master plan will be selected in the course of the Study, both sides agreed that following 12 airports would be considered to have priority at present;

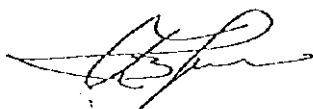
NUKUS, URGENCH, NAVOI, BUKHARA, SAMARKAND,  
KARSHI, TERMEZ, TASHKENT, NAMANGAN, ANDIZHAN,  
FERGANA and KOKAND.

And both sides agreed that military facilities in the airport should be excluded from the Study.

3. Staff assignment for the Study.

The Uzbekistan Airways should assign suitable staffs for the Study as follows;

- Social Economic analysis
- Financial analysis
- Capital Construction
- Air Traffic Control
- Ecology etc.



K.A.

4. Steering Committee.

Both sides agreed that the Uzbekistan side would establish a Steering Committee including related governmental agencies or organizations.

5. The Uzbekistan side requested all reports should be translated to Russian language.

The Team explained that the summary of report should be translated to Russian language at most, considering examples of other countries or other project in the Republic of Uzbekistan, time duration to translate and accuracy of translation etc.

The Uzbekistan side strongly requested again that all reports should be translated to Russian for understanding of substance of report in detail by the Uzbekistan engineers who cannot understand English.

6. Undertaking of the Government of Uzbekistan.

Though the Uzbekistan Airways, as a nation owned company, could not take measures stipulated in VI. 1, 2 of the Scope of Work for the study by themselves, they would take maximum efforts to arrange for necessary measures to be taken by the corresponding government organization.

7. Undertaking of the Uzbekistan Airways.

· Office space

Uzbekistan side explained difficulties to secure office space in Tashkent, but they would take maximum efforts to secure office space in the airport facilities near Tashkent City Center before the Study would be started.

· Vehicles and drivers

Both sides agreed that appropriate number of vehicles and drivers should be provided in case of field surveys for local airports.

8. Uzbekistan side requested counterparts training in Japan.

The Team promised to convey this request to the JICA Headquarters.



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ATTENDANCE LIST

1. UZBEKISTAN SIDE

Uzbekistan Airways

Mr. Valeri TYAN	1ST Deputy Director General
Mr. Valentin G. GORDIENKO	Deputy Director General
Mr. Khairulla S. ABDULLAEV	General Director of Unified Directorate for the construction of "Tashkent" Airport
Mr. Mirsaanvar VAKHABOV	Chief Manager of Capital construction Administration

2. JAPANESE SIDE

Japanese Preparatory Study Team

Mr. Kazuhito ARAO	Leader
Mr. Takao KAIBARA	Member
Mr. Masaki ISHII	Member
Mr. Masahide YAMAGUCHI	Member
Mr. Yoshihiko HAYASHI	Member
Mr. Shoichi TSUGANE	Member
Mr. Takenobu SUZUKI	Member
Mr. Jun KATORI	Member



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③ Questionnaire

REQUIRED DATA AND QUESTIONNAIRE

OF

JICA PREPARATORY STUDY TEAM

FOR

THE STUDY FOR AIR TRANSPORTATION DEVELOPMENT

IN

THE REPUBLIC OF UZBEKISTAN

November , 1996

JAPAN INTERNATIONAL COOPERATION AGENCY

The questionnaire is prepared by the Japanese Preparatory Study Team for THE STUDY FOR AIR TRANSPORTATION DEVELOPMENT IN THE REPUBLIC UZBEKISTAN (hereinafter referred to as "the Study") so as to obtain basic information and data needed for the Study.

Please answer all the questions in English and attach materials requested in this questionnaire. Answers need not be too much in detail but should be brief and precise.

Thank you for your cooperation.

Note;

- Please write Y for the Data/Item in the "Availability" which is available.
- Please write N for the Data/Item in the "Availability" which is not available.

·If attached materials are not written in English, please write down notes in English on materials for understanding by the mission.

I. SOCIO-ECONOMIC CONDITIONS (1)

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
1. Land use (1) Land use map (2) Regulations on land use (3) Guideline (4) Land use plan	1) Industry, agriculture, mining, etc.	Y		△ : 政府での所有が期待されるが、所在の有無がNACにより確認されていないもの
2. Population (1) Indices of population	1) Changes of population by areas, age groups, sexes, industries, etc.	N N N Y		
3. Economy (1) Socio-economic indices	1) Annual data for the past 10 years 2) Future prospect(2020)	Y		
(2) GNP	1) Annual data for the past 10 years	△		
(3) GDP	2) GDP by areas, industries, etc. for the past 10 years	△		
(4) Input-output table	1) Annual data for the past 10 years	△		
(5) Average family's income and expenditure	1) By items, countries and routes for the past 10 years	△		
(6) Amount of export and import	1) Inflation rate (past 10 years)	△		
(7) Changes of public investment	1) Medium and long term plan (in a whole country by industries)	△		
(8) Price index		△		
(9) Development plan of economy		△		
4. Administration (1) Administrative district map	1) Project plan 2) Future development plan	Y		
5. Regional development plan		△		

I. SOCIO-ECONOMIC CONDITIONS (2)

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
6. Organization of the Government	<ul style="list-style-type: none"> <li>1) All government</li> <li>2) Authorities responsible for transport and information</li> <li>3) Authorities responsible for environment issues</li> </ul>	△		
7. Government budget allocation	<ul style="list-style-type: none"> <li>1) Whole government (past 10 years)</li> <li>2) By ministries and agencies (past 10 years)</li> <li>3) The Uzbekistan Airways (past 10 years)</li> </ul>	△ △ N	予算配分されていない	
8. Others	<ul style="list-style-type: none"> <li>(1) Topographical map</li> <li>(2) Volume of passengers and freight by traffic mode</li> <li>(3) Flow of passengers and freight by traffic mode</li> <li>(4) Construction and reinforcement plan and project by traffic mode</li> </ul>	N △ △ △		



I. TECHNICAL DATA/INFORMATION (1)

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
1. General information	1) Year Book of Transportation of Uzbekistan	N	作成されていない	
2. Transportation system	1) Network maps (roads, railways, commercial flights, inland-water transportation, ports, etc.)	△		
	2) Capacity of transportation system by each mode	N	存在しない	
	3) Transportation volume data by each mode and type of vehicle	Y		No.36 航空のみ入手
	4) Forecasts of cargo/passengers by each mode and type of vehicle			
	5) Demand forecast of cargo / passengers by each mode and type of vehicle	Y		
	6) Transportation cost by each mode and type of vehicle	Y		
	7) Development/improvement policies by each mode	△		
	8) The number of motor vehicles in last 10 years (bus, truck, personal, car, etc.)	△		
	9) Related materials (national transportation studies, etc.)	△		No.37 航空のみ入手
3. Present condition of Department of Air Transportation				
(1) Organization charts	1) Complex of Transport and Communication	Y	大臣会議	
	2) Department of Air Transportation	Y	NAC	
	3) Uzbekistan Airways	△	NAC	
(2) Laws and regulations	ditto			
(3) Budget	1) Income and expenditure for last 5 years (break down)	Y	NAC	
	2) Subsidies for last 5 years	N	制度がない	
(4) Subsidy	1) System of subsidization			
	2) Subsidies for last 5 years			

I. TECHNICAL DATA/INFORMATION (2)

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
(5) Taxation	1) System of taxation 2) Taxation for last 5 years	△	NAC	口頭で聴取 ・外国人運賃は現在はない？ ・学生割引あり ・NAC社員 7年勤続で年1回国内線Free 15年勤続で2年に1回国際線 Free
(6) Tariff	1) Tariff policy and process of tariff determination 2) Tariff table	Y Y		
(7) Accounting	1) System of accounting 2) Accounting for last 5 years	△		
(8) Financial condition (last 10 years)	1) Income and expenditure by line, by cargoes / passengers 2) Financial statement 3) Profit/loss statement 4) Cash-flow statement	N △ △ △	存在しない NAC NAC NAC	
(9) Development policies and plans	1) Outline 2) Expected handling cargo / passenger volume in the future 3) Investment plan	N N △	存在しない 存在しない NAC(空港投資のみ)	
(10) Human resources	1) Recruiting and training system 2) Salary system 3) Allocation of employees by department 4) Duty system (working term, conditions, etc.) 5) The number of employees (by final education, by category, by age) 6) Career Path	Y Y Y Y Y	NAC NAC NAC NAC NAC	口頭で聴取 1)航空券発券・予約コンピュータ 2)空港持ち込みのみ取り扱い
(11) Marketing system	1) Ticketing system and seat reservation, etc. 2) Cargo collection and delivery system	Y Y		

II. TECHNICAL DATA/INFORMATION (3)

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
(12) Operations	<ul style="list-style-type: none"> <li>1) Air diagram and time table</li> <li>2) Operation chart</li> <li>3) Operation management system</li> <li>4) Cargo/passenger volume</li> <li>5) Planning system (seasonal programs, etc.)</li> </ul>	Y		
(13) Air Transport	<ul style="list-style-type: none"> <li>1) Airport Development plan                             <ul style="list-style-type: none"> <li>a) Airport development plan of each airport</li> <li>b) Public investment of the last 10 years of each airport</li> </ul> </li> <li>c) Public investment plan of each airport</li> <li>d) Foreign assistance for each plan</li> <li>2) Air route network                             <ul style="list-style-type: none"> <li>a) Map of route network (international / domestic)</li> <li>b) Future plan/policy for air route network</li> </ul> </li> <li>3) Airport in Uzbekistan                             <ul style="list-style-type: none"> <li>a) Geographical distribution of airports and their classification</li> <li>b) Major facilities of each airport</li> <li>c) Function and capacities of each airport</li> <li>d) Design and planning criteria</li> <li>e) International/domestic passengers of each airport (at least last 10 years)</li> <li>f) International and domestic cargo of each airport (at least last 10 years)</li> <li>g) Demand forecast of air transport of each airport (passenger/cargo)</li> <li>h) Military aircraft activities of each airport</li> <li>i) Number of takeoffs and landings of each air port (commercial aircraft / general aviation aircraft)</li> <li>j) Air traffic control area map</li> <li>k) Air traffic control method</li> <li>l) Distribution of navigation facilities</li> <li>m) Aeronautical Information Publication (AIP)</li> </ul> </li> </ul>	Y Y Y Y Y Y Y Y Y N Y Y Y Y Y	NAC  NAC NAC NAC NAC NAC NAC NAC NAC 存在しない NAC NAC NAC NAC	<ul style="list-style-type: none"> <li>・夏ダイヤ(4~10月)、冬ダイヤ(11~3月)を設定</li> <li>口頭 ・東京、フリュウツェル路線を開設したい</li> <li>ソサケ 訓練飛行場 (民航は飛んでいない) フエガナアンデ、イザン 軍管理の共用飛行場</li> </ul>

II. TECHNICAL DATA/INFORMATION (4)

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
(14) TASHKENT, URGENCH, BUKHARA, SAMARKAND, TERMEZ, FERGHANA Airports	<p>4) Airline company</p> <p>a) Name of airline companies operating in Uzbekistan (including foreign airline companies)</p> <p>b) International and domestic route map and timetable (by each airline)</p> <p>c) Air fleet (present and future plan)</p> <p>d) Foreign airline companies desiring to serve in Uzbekistan</p> <p>1) General information</p> <p>a) Layout of the existing facilities (more than 1/5000 scale)</p> <p>b) Inventory of facilities</p> <p>c) Construction history of airport</p> <p>d) Data opened for service, problems (degree of congestion, deterioration through aging, etc.) and requests on airport facilities or management made by the users (airline companies, passengers, etc.)</p> <p>e) Past aircraft accidents</p> <p>f) Rate of actual flight per scheduled ones in winter</p> <p>g) System of snow sweeping works of airport</p> <p>2) Airport facilities</p> <p>a) Runway, taxiway and apron</p> <ul style="list-style-type: none"> <li>- Weight restriction of aircraft</li> <li>- Actual strength of runway, taxiway and apron pavement</li> <li>- Profile and cross section of runways and places where cracks and other defects have risen</li> <li>- Profile and cross section of taxiways and places where cracks and other defects have arisen</li> <li>- Profile and cross section of aprons and places where cracks and other defects have arisen</li> </ul>	Y		全世界の空港別時刻表にて調査
		Y		全世界の空港別時刻表にて調査
		N	機密	
		Y	現在 待ちはない	
		Y		ヤカント'空港 (資料No.20)
		(1/2000)		カマ'ナ'空港 (資料No.26)
		Y		ヤカント'空港 (資料No.25)
		Y		ヤカント'空港 (資料No.25)
		N		ヤカント'空港 (資料No.25)
		N		ヤカント'空港 (資料No.25)
Y		ヤカント'空港 (資料No.25)		
Y		ヤカント'空港 (資料No.25)		
Y		ヤカント'空港 (資料No.25)		
Y		ヤカント'空港 (資料No.25)		

II. TECHNICAL DATA/INFORMATION (5)

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
	3) Terminal facilities *see attached sheets a) Floor plans and sections of each floor level of the terminal building b) Layout plan of terminal facilities (baggage claim, x-ray check, CIQ, etc.) c) Location of fire station and the number and the size of fire engines d) Size, layout and utilization status of parking lots 4) Air navigation facilities a) List of the following facilities - Lighting facilities - Air-to-ground telecommunication facilities - Radio navigation facilities - Air traffic control radar facilities - Meteorological facilities 5) Utilities a) Actual supply / disposal volume of following facilities - Water Supply - Electric power supply - Sewage - Fuel supply b) Drainage facilities - Rainwater drainage system diagram - Method of treating of sewage generated in the terminal area c) Method of fueling (hydrant or refueller) d) Number and distribution of GSE vehicles 6) Obstacle a) Map of obstacle limitation surface b) Report of obstacles for limitation surface 7) Other information relevant to the Study a) Access transportation volume from the main cities b) Location of residential quarter for airport staff and the number of residents	Y Y N N Y  Y  Y Y Y Y N		マカオ空港 (資料No.21) カクノフ空港 (資料No.27) マカオ空港 (資料No.25)  マカオ空港 (資料No.25)  マカオ空港 (資料No.25)  マカオ空港 (資料No.24) マカオ空港 (資料No.24)

III. NATURAL AND ENVIRONMENTAL DATA / INFORMATION (1)

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
1. Natural condition	1) Meteorological conditions a) Wind direction and speed b) Visibility and cloud height c) Temperature and precipitation d) Fog, thunderbolt and tornado 2) Natural hazards a) Earthquakes (earthquake catalogue, earthquake zoning map, epicentre map, seismic design code, etc.) b) Typhoon (maximum wind speed, years of occurrence) c) Water level records of Arai Sea d) Other hazards specific to the region 3) Topographic map (airport and its surrounding area) a) more than 100,000 for M/P b) more than 10,000 for F/S 4) Aerial photograph (airport and its surrounding area) 5) Geological map 6) Boring data 7) List of meteorological observatory 8) List of organization, research institute, etc. responsible for the natural hazards	Y		
		Y		
		Y		
		Y		
		N		本格調査時までに 1/2500 を用意する
		N		
		N		
		Y		
		Y		
		Y		
2. Environmental condition	1) Present quality of natural environment a) aircraft noise level b) quality of air, water, soil contamination, odor 2) Community / villages distributed map 3) Socio-economic data of the district around the sites 4) City and regional plan (zoning and land use) 5) Existing land use map 6) Vegetation map	Y		NAC
		Y		NAC
		Y		NAC
		Y		NAC
		Y		NAC
		Y		NAC

III. NATURAL AND ENVIRONMENTAL DATA / INFORMATION (2)

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
	7) Endangered species of flora and fauna around the sites	Y	EPC	EPC : 国家環境保護委員会
	8) Floodplain and other special hazardous points map	Y	EPC	
	9) Existence of archeological, historical, and cultural remnant sites	Y	市	
	10) Present situation and plan of solid waste and disposal	Y	NAC	
	11) List of organization, research institute, university, etc. responsible for environment (name, address, contact person, telephone number, facsimile number)	Y	EPC	
3. Environmental policy	1) Governmental policy for environmental issues	Y	EPC	
	2) Institutional aspects	Y	EPC	
	a) Law, rule and regulation	Y	EPC	
	b) Environmental criteria	Y	EPC	
	c) Responsible ministry or agency	Y	EPC	
	d) Procedure for IEE and EIA	Y	EPC	
	e) Environmental quality standards	Y	ECOSAN	ECOSAN : Ecology and sanitary Fund
	f) International conventions on environmental conservation	Y	ECOSAN	(Tel ; 349507)
	3) Examples of IEE and / or EIA for the similar projects	Y	NAC	
	4) Relevant NGO	Y	ECOSAN	

V. CONSULTANTS AND SURVEYORS

ITEM	DESCRIPTION	AVAILABILITY		NAME OF MATERIALS
		AVAILABILITY	PLACE OF DATA AVAILABLE	
<p>1. Consultants and surveyors</p> <p>(1) List of registered consulting firm in and actual results and terms of ;</p> <p>(2) Cost of investigation and survey</p>	<p>1) Environmental survey</p> <p>2) Topographic survey</p> <p>3) Soil exploration, geological survey</p> <p>4) Traffic survey</p> <p>5) Socio-economic survey</p> <p>1) Environmental survey (water quality, noise, etc.)</p> <p>2) Topographic survey</p> <p>3) Boring, sounding survey, laboratory soil test, river-bed material survey, geophysical survey</p> <p>4) Origin-destination survey</p> <p>5) Socio-economic survey</p> <p>1) Environmental specialist</p> <p>2) Surveyor</p> <p>3) Geotechnical engineer</p> <p>4) Traffic engineer</p> <p>5) Economist, etc.</p> <p>1) Environmental specialist</p> <p>2) Surveyor</p> <p>3) Geotechnical engineer</p> <p>4) Traffic engineer</p> <p>5) Economist, etc.</p>	<p>Y</p> <p>Y</p> <p>Y</p> <p>N</p> <p>Y</p> <p>Y</p> <p>N</p> <p>Y</p> <p>N</p> <p>N</p> <p>N</p> <p>Y</p> <p>Y</p> <p>Y</p> <p>N</p> <p>N</p> <p>Y</p> <p>Y</p> <p>Y</p> <p>N</p> <p>N</p>		
<p>(3) Salary for consultants</p> <p>(4) Bidding rate for consultants</p>				



④ Terms of Refence

No. EG-01/16-3726, 1995年12月27日

在ウズベキスタン共和国日本国大使館宛

対外経済関係省は在ウズベキスタン共和国日本国大使館に敬意を表するとともに、ODA計画の技術支援の枠内において、ウズベキスタン航空網開発計画のM/P作成及び新タシケント国際空港建設のF/S実施に対し、国営航空会社「Uzbekiston khavo jullari」によって準備された要請書を送付する光栄を有する。

対外経済関係省は、この機会に、日本国大使館に改めて深甚なる敬意を表する。

添付：英語によるタシケント国際空港開発計画要請書案-10葉

第1次官

署名

E. ガニエフ

担当：Shakirov, K

tel: 391752

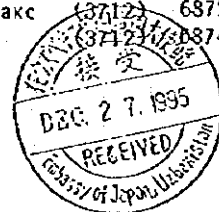
ЎЗБЕКИСТОН РЕСПУБЛИКАСИ  
ТАШҚИ ИҚТИСОДИЙ  
АЛОКАЛАР ВАЗИРЛИГИ



МИНИСТЕРСТВО ВНЕШНИХ  
ЭКОНОМИЧЕСКИХ СВЯЗЕЙ  
РЕСПУБЛИКИ УЗБЕКИСТАН

700077, Ташкент ш., Буюк йули куч., 75 . 700077, г. Ташкент, ул. Буюк йули, 75  
телефон (3712) 689256 телекс 116294 TORGSU телетайп 336155ТОРГ телефакс (3712) 687231  
116122 ATLAS SU 336157 ЧЕК

№ 21-а/16-37626 "27" 12 1995.



Посольство Японии в  
Республике Узбекистан

Кас.: направления заявки.

Министерство внешних экономических связей выражает свое уважение Посольству Японии в Республике Узбекистан и настоящим имеет честь передать заявку, подготовленную Национальной авиакомпанией "Узбекистон хаво йуллари" на составление генерального плана развития воздушного транспорта Узбекистана и составление технико-экономического обоснования на строительство нового международного аэропорта "Ташкент" в рамках технической помощи по линии ODA.

Министерство внешних экономических связей пользуясь случаем, возобновляет свое глубокое уважение Посольству Японии в Республике Узбекистан.

Приложение: Проект заявки по изучению развития Ташкентского международного аэропорта на английском языке — 10 стр.

Первый заместитель министра

Э.Ганиев

исп: Шакиров К.  
тел: 391752

TECHNICAL COOPERATION  
BY THE GOVERNMENT OF JAPAN

APPLICATION  
BY THE GOVERNMENT OF THE REPUBLIC OF UZBEKISTAN  
FOR  
THE STUDY ON NEW TASHKENT INTERNATIONAL AIRPORT

DEVELOPMENT

TO THE GOVERNMENT OF JAPAN

TECHNICAL COOPERATION  
BY THE GOVERNMENT OF JAPAN

APPLICATION

By the Government of the Republic of Uzbekistan for the study on New Tashkent International Airport Development to the Government of Japan.

**1. Project description**

1) Project name

New Tashkent International Airport Development

2) Location

The study area of dislocation will cover the considerable territory of the Tashkent region in the Republic of Uzbekistan.

3-1 Responsible Agency

National Aviation Company of Uzbekistan, Uzbekistan Airways

3-2 Executing Agency

National Aviation Company of Uzbekistan, ODSP "Tashkent"

**4. Justification of the Project**

Tashkent is the capital of the RU. It is the biggest city in the Central Asia region. Its population is more than two million inhabitants. It has been the centre of the region as for the geographic and historical background.

Existing Tashkent International Airport is located in the city of the Tashkent, at a distance of 5 kilometres from the centre. It has been playing as hub airport in the regional and international air network.

The RU hasn't access to the sea, therefore Tashkent airport is the peculiar gateway of the Republic. It is also a centre of the domestic air network. According to the collapse of the former Soviet Union, the Tashkent airport is expected to be an international hub airport which links the north to the south and the west to the east.

b) As the airport is situated in the centre of the Tashkent city, it has negative influence over the ecological situation and creates the serious danger in case of accident. The consequence and damage of this accident are unforeseen. Therefore this location is obstacle for airport

expansion according to modern requirements.

c) In order to secure the environmental condition and to develop the airport, the Government of the RU has decided the cabinet decree to relocate the airport to the suburb of the city in 1992.

d) The RU was independent on September 1992. And it has been making efforts to stable and expand the economy. In order to make progress of the project, the condition study and the feasibility should be done.

Hence the RU would like to request for the Japanese Government to provide the technical assistance of this feasibility study.

5) Desirable or Scheduled Time of Commencement of the Project  
The year of 1997 is desirable.

6) Prospective Funding Source and/or Assistance  
It is unknown

7) Other Relevant Projects, if any  
The RU has requested the Government of Japan to provide the soft loan for development of three local airports for development (Samarkand, Bukhara and Urgench airports).

## **2. Terms of Reference of the Proposed Study.**

### **1) Necessity and Justification of the Study**

a) The existing Tashkent International airport has two international-class long runways (4.000 and 3.900 meters long) and handles 1.78 million passengers in 1994. The airport handled 8 million passengers in 1991. But after the collapse of the former Soviet Union and the general economic recession the passenger volume has decreased sharply. The Tashkent airport is a regional (Central Asia and the Community of Independent States) and also domestic hub airport.

After the independence and development of international ties, the Tashkent airport became as one of the main international hub airports in the region of the Central Asia. At present, Tashkent is directly connected with 17 major cities in Europe, Asia, Near East and the United States of America. It also links with 23 big cities in CIS and Russia. The Uzbekistan Airways, the National Aviation Company of Uzbekistan, is planning to develop the international flight routes

further.

The young state of Uzbekistan actively develops its own national economy, integrates into the world one, and having its advantageous geographic location, the Tashkent Airport acquires the particular significance. So that, the airport is deeply requested to meet international requirements.

However as the airport was arranged under the former Soviet Union criteria before the independence, most of facilities and equipment do not suit with the requirements and most of them are outmoded.

Therefore it should be modernized urgently.

The RU expands the international relations and trade with newly acquainted countries, develops the international tourism, which has acquired the new impulse after the opening of the "Great Silk Way" route.

In reflection to these prospects, total passenger demand is forecast as follows;

Year	1994	2000	2005	2010
Passenger (million)	2,97	5,06	6,55	9,17

The capacity of the existing airport is estimated to be enough to handle the demand. However, as it is located in the centre of the city, it has been facing with the following problems:

1) environment problem

-according to the city construction norms an airport should be 30 km apart from urban areas. Now it is densely surrounded by residential areas.

-the high noise level covers an area of 3,700 ha and 360 thousand people. And according to the findings of the study conducted in 1986 the noise level reveals 85 dBA around the airport by standard -55 dBA at night and 65 dBA in daytime.

-the airport location in the city line with two million population and with developed infrastructure creates a serious danger in case of accident and its consequences and damage are unforeseen.

-there are some other negative factors of airport influence over the environment engine exhaust gas pollution, radiation and etc.

Organization of relative engineering actions for liquidation of above-mentioned faults in residential areas raises the cost of airport development.

## 2. Expandability difficulty.

If the airport is expanded to meet the international requirements, it will be practically impossible to solve a problem of additional territory and at the same time it will be the obstacle for the normal function of the city economy and security of the residents around the airport.

## 3. Obstructions

Under the circumstances there are some obstructions near the airport runways. These obstructions influence over the security of air traffic. The removal of the obstructions requires large capital investments. In order to solve this problem, it is necessary to relocate the airport on the new area. Therefore it is necessary to carry out the master planning and its feasibility study of the New Tashkent Airport with international functions and services.

b. Civil aviation of Uzbekistan was the part of the united system of the Soviet Union before its collapse. So that technical standards, systems of facilities and equipment are sharply different from the international standards and requirements, concerning airport services. Thus civil aviation of Uzbekistan remains at the level under the international average. Because of financial difficulty arrangement and development was so delayed that the facilities and equipment are deteriorated and outmoded.

After the independence, Uzbekistan has joined the International Civil Organization (ICAO) and the International Air Transport Association (IATA).

Representation of Uzbekistan and NAC in the structure of these organizations makes them responsible for observing all requirements of air safety and services at the level of world standards.

The development of air transport matters very much to Uzbekistan. There are 20 airports in Uzbekistan and established dense network inside itself and with CIS countries for the last period. After the collapse of the former Soviet Union and sharp decline of economy the air transportation is decreased in the Republic.

At the same time the young independent RU started the policy of development and integration into the world Community. There is a tendency of further increase of the international flights in the NAC

"Uzbekistan Airways".

In connection with the last changes, the Republic is needed to establish a master plan for development of airports which will accurately and flexibly define demands of aircraft fleet on the basis of long term prospects.

The New Tashkent International Airport, its function, its size and its further development will be defined in the structure of general tendency of air traffic development of the RU.

Therefore the master plan of air transport should be studied.

## 2) Objectives of the Study.

a) to formulate tendencies for development of air transport in Uzbekistan and a master plan of the Tashkent International Airport in medium and long horizons.

b) to elaborate a feasibility study on the first phase development of the New Tashkent International Airport.

c) to propose the management and operation system of air transport in Republic

d) to describe technical capability

## 3) Study area

The study area will cover the whole area in the RU, particularly the Tashkent region.

## 4) Scope of the Study

a) Scope of works

The study will consist of the following two main parts

1. A master plan for air transport development in Uzbekistan
2. A feasibility study of the New Tashkent International Airport

The study will cover the following items.

### Phase 1. Study on existing conditions of air transport in Uzbekistan

- 1) Analysis of existing study and data related to the study
- 2) Data collection and supplementary survey on the air transport of the RU



### 3) Survey on operation and management system of airport and relevant facilities

#### Phase 2. Working out strategy plan and master plan for development of air transport of the RU

- Projection of the economic framework
- Projection of air transport framework of the RU
- Strategy plan of air transport development
  - strategy plan of domestic airways development
  - strategy plan of development of national airports structure and facilities
- Identification of priority projects
- Master planning of priority projects
- Study on management and maintenance for the master plan
- Rough cost estimate for the master plan
- Preparation of realization plan for the master plan
- Initial Environment Evaluation (IEE) for the master plan
- Overall evaluation and recommendations

#### Phase 3. Feasibility study of the New Tashkent International Airport Development

- Survey of physical conditions
- Preparation of basic design of facilities
- Preparation of land use plan in the vicinity
- Preparation of construction plan
- Preparation of management and maintenance procedure for the facilities to be developed
- Preparation of aviation control
- Estimation of project costs
- Environmental Impact Analysis (EIA)
- Economic analysis
- Financial analysis
- Preparation of realization plan
- Overall evaluation and recommendation

#### Phase 4. Analysis and recommendation for management modernization system of national airlines

- Analysis of organization, management and operation of national airlines

--Recommendation on modernization of organization, human resources development, marketing system and management

b) Submission of the study reports

At cash stage of the study, the following reports in English will be submitted to the Uzbekistan Airways.

1. Inception report (15 copies in English and 15 copies in Russian)

It will describe the work plan and methodology of the study.

It will be submitted at the commencement of the study.

2. Progress report = = =

It will brief the progress of the study for understanding

It will be submitted within 4 months after the commencement of the study.

3. Interim report = = =

It will include the air transport development master plan

It will be submitted within 8 months after the commencement of the study.

4. Draft final plan = = =

It will show the feasibility study of the New Tashkent International airport development and analysis & recommendations.

5. Final report = = =

It will be finally arranged with the reflection of the comments made by the Uzbekistan side.

It will be submitted within two months after receipt of the comments.

Study Schedule

The whole work will be conducted in accordance with the attached tentative schedule. (Appendix)

6) Other Relevant Information

a. The RU was independent in 1991 after the collapse of the Soviet Union. In 1992, the National Aviation Company (NAC), Uzbekistan Airways, was set up to be a sole authority of civil aviation in the state. NAC handles every kind of activities of civil aviation; administration, legislation, international air transport agreement, airport operation and maintenance, air traffic control services and air

transport. In accordance with the independence, the Republic has joined the worldwide state-member organization of the International Civil Aviation Organization (ICAO) and the Uzbekistan Airways (hereafter referred as NAC) has joined the International Air Transport Association (IATA).

b. The Government has decided to relocate the existing Tashkent airport out of the city for preservation of the environmental condition and for future expansion needed for the demand growth in 1992. In connection with considerable investments, the Uzbekistan government, has adopted the modernization of the existing airport and the construction of the new airport will be postponed till distant perspective. The existing reconstruction of airport was planned to cope with 5 million annual passengers.

### **3. Undertaking of the Government of the Republic of Uzbekistan**

In order to facilitate a smooth and efficient conduct of the study, the Government of the RU shall create necessary measures.

- 1) to secure the safety of the Japanese study team.
- 2) to permit the member of the study team to enter, leave and sojourn in the RU for the duration of their assignment therein, and exempt them from alien registration requirements and consular fees.
- 3) to exempt the member of the study team from taxes, duties and any other charges on equipment, machinery and other materials brought into and out of the RU for the implementation of the study.
- 4) to exempt the member of the study team from income tax and other charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the study team for their services in connection with the implementation of the study.
- 5) to provide necessary facilities to the study team for remittances as well as utilization of the funds introduced into the RU from Japan in connection with the implementation of the study.
- 6) to secure permission for entry into private properties or restricted

areas for the implementation of the study.

7) to secure permission for the study team to take all data and documents (including photographs, maps) related to the study out of the RU.

8) to provide medical services as needed and its expenses will be chargeable on the member of the study team.

The Government of the RU shall, at its own expenses, provide with followings,

- 1). Available data and information necessary for the study
- 2). Counterparts personnel in necessary number
- 3). Suitable office with necessary equipment (desk, cabinet, telephone, etc.)
- 4). Credentials or identification cards for the members of the study team.

⑤ 収集資料リスト

ウズベキスタン国航空輸送改善総合開発計画調査

事前調査・収集資料集リスト

番号	カテゴリ	資料の名称	発行年	地域	言語	形態	版数	ページ数	オリジナル or コピー	部数	取戻先 or 発行機関名	寄贈 or 購入	備考
1	報告書	Feasibility Study for the Modernisation of Tashkent Airport for Uzbekistan airways by Luftnarza Consulting (Vol 1)	05/95	タシケント	英語	書籍	A4	443	オリジナル	1	NAC	寄贈	木編
2	報告書	Feasibility Study for the Modernisation of Tashkent Airport for Uzbekistan airways by Luftnarza Consulting (Vol 2)	05/95	タシケント	英語	書籍	A4	144	オリジナル	1	NAC	寄贈	資料編
3	地図	Jizzak and Syrdaryo Regions	1994	サマルカンド	露語	地図	不定	1	オリジナル	1	書店	購入	1/500,000
4	地図	Ancient City of Uzbekistan	1985	タシケント ウルゲンチ	露語	地図	不定	1	オリジナル	1	書店	購入	道路地図
5	地図及び解説	Uzbekistan is Sovereign and Independent	1996	全国	英語	地図	不定	1	オリジナル	1	書店	購入	各州の解説
6	地図	CAMARKAHD	1991	サマルカンド	露語	地図	不定	1	オリジナル	1	書店	購入	1/13,000
7	観光案内	UZBEKISTAN - a whole new world-		全国	英語	書籍	A4	40	オリジナル	1	書店	購入	主要都市の案内
8	報告書	Feasibility Study for Three Local Airports Development Project by Japan Airport Consultants	01/96	サマルカンド、 ブハラ、ウルゲンチ	英語	書籍	A4	約 200	オリジナル	1	NAC	寄贈	木編
9	報告書	新タシケント空港F/S報告書	93	タシケント	露語	書籍	A4	41	オリジナル	1	NAC	寄贈	旧候補地
10	報告書	Tashkent Airport Project - A Final Feasibility Report- by Morgan Grenfell & Co. Limited	94	タシケント	英語	書籍	A4	140	オリジナル	1	NAC	寄贈	
11	地図資料	AIP UZBEKISTAN	01/96	全国	露語	地図	A3	1	コピー	1	タシケント空港	寄贈	
12	地図	UZBEKISTAN (1/1,000,000)	1993	全国	露語	地図	不定	1	オリジナル	1	NAC	寄贈	
13	報告書	タシケント空港騒音調査 (1987年)	1987	タシケント	露語	書籍	A4	11	コピー	1	NAC	寄贈	
14	資料	AIP UZBEKISTAN	01/96	タシケント、 サマルカンド、 テルメス	英語	図表	A4、 A3	11	コピー	1	NAC	寄贈	
15	資料	AIP (ローカル版)	-	18空港	露語	図表	A4	11	コピー	1	NAC	寄贈	
16	資料	1986 - 1995 空港毎の設備投資額推移		タシケント、 サマルカンド、 テルメス、 フルガナ	露語	表	A4	1	オリジナル	1	NAC	寄贈	Q/N 1.3.(7)
17	資料	Time Table (Uzbekistan Airways)	95,96	タシケント	英語	書籍	不定		オリジナル	1	NAC	寄贈	国内、国際
18	資料	Recommendation on State Comments on environment protection	1996	全国	露語	書籍	A5	11	オリジナル	1	NAC	寄贈	環境行政
19	資料	ウズベキスタン航空の組織解説	1992	全国	露語	メモ	A4	1	オリジナル	1	NAC	寄贈	

番号	カテゴリ	資料の名称	発行年	地域	言語	形態	ページ数	オリジナル or コピー	部数	収集先 or 発行機関名	寄贈 or 購入	備考
20	平面図	空港平面図 (1/2,000)		サマルカンド	露語	図面	不定	1	1	サマルカンド空 港	寄贈	コンター入り
21	平面図	ターミナルビル1,2階 平面図		サマルカンド	露語	図面	不定	1	1	サマルカンド空 港	寄贈	
22	平面図	制限表面図 (1/10,000)		サマルカンド	露語	図面	不定	1	1	サマルカンド空 港	寄贈	
23	縦断面図	滑走路縦断面 (1/2,000)		サマルカンド	露語	図面	不定	1	1	サマルカンド空 港	寄贈	
24	資料	航空物一覧表		サマルカンド	露語	表	A4	1	1	サマルカンド空 港	寄贈	
25	資料	Air Traffic Development Study Information		サマルカンド	露語	メモ	A4	12	1	サマルカンド空 港	寄贈	施設建設、電 気、光、気象、 滑走路舗装所 部等
26	平面図	空港平面図 (1/5,000)		ウルゲンチ	露語	図面	不定	1	1	ウルゲンチ空 港	寄贈	
27	平面図	ターミナルビル1,2階 平面図		ウルゲンチ	露語	図面	不定	1	1	ウルゲンチ空 港	寄贈	
28	組織図	ウルゲンチ空港組織図		ウルゲンチ	露語	図面	A4	1	1	ウルゲンチ空 港	寄贈	
29	資料	プハラ空港近接近代化の計画 (OECF)	1996	プハラ	露語	資料	A4	1	1	NAC	寄贈	
30	資料	質問表に対する回答 (環境関係のみ)	1996	タシケント	露語	資料	A4	1	1	NAC	寄贈	
31	資料	タリフ		国際線	露語	資料	A4	6	1	NAC	寄贈	
32	資料	航空職員労働組合中央委員会とNAC間の協定	1996	全国	露語	資料	A4	31	1	NAC	寄贈	
33	資料	航空関係人員養成資料		全国	露語	資料	A4	3	1	NAC	寄贈	
34	図	NAC組織図		全国	露語	資料	A4	1	1	NAC	寄贈	
35	資料	空港等の試験機械など		タシケント	露語	資料	A4	2	1	NAC	寄贈	
36	資料	保石機による航空旅客輸送量		国内外	露語	資料	A4	1	1	NAC	寄贈	
37	資料	NAKに関する主要予測指標		国内外	露語	資料	A4	1	1	NAC	寄贈	
38	資料	NAK所管空港の旅客郵便貨物輸送量離陸回数		国内外	露語	図表	不定	1	1	NAC	寄贈	
39	平面図	タシケント空港平面図 (1/5,000)		タシケント	露語	図面	不定	1	1	NAC	寄贈	
40	資料	質問表に対する回答 (タシケント空港)		タシケント	露語	資料	A4	1	1	NAC	寄贈	
41	資料	環境保護ガイドライン-環境影響評価ガイド		全国	露語	書籍	A4	70	1	EPA	寄贈	
42	資料	企業の建物建設の企画等に対する指導書		全国	露語	書籍	A4	44	1	EPA	寄贈	











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