

## **Minutes of The Taskforce-1 & 2 Meeting for “The Project for Capacity Development in Air Traffic Services” in Tajikistan**

**Dushanbe, 2 February 2018**



The 11<sup>th</sup> TF-1 & the 8<sup>th</sup> TF-2 Meeting for “The Project for Capacity Development in Air Traffic Services” (hereinafter “the Project”) was held at 14:30-16:00 on 2 February 2018 in the Project office.

Mr. Watanabe (Chief Advisor), Mr. Sheraliev (Project Manager), Mr. Davlyatov (Head of ATS), Mr. Davron (TF-1 leader), Mr. Ulugbek, Mr. Payrav, Mr. Orita (Project Coordinator) attended this meeting.

This meeting was the reporting opportunity of implemented TF-1 & TF-2 activities by Expert and coordinate next mission schedule by TF accordance with the Sub-activity list and AWP.

### **I. Activity of both side from 22<sup>th</sup> January to 2<sup>nd</sup> February 2018**

During this period, the expert and Taskforce 2 team led by Mr. Bakhtiyor Sheraliev had a series of discussions and exchanged information on possible technical assistance to the Contingency Plan and Safety Management System part of the Project for Capacity Development of TAN.

The expert and Taskforce 1 team led by Mr. Davlyatov had a series of discussions and exchanged information on possible technical assistance to the Training on Air Traffic Control Officer part of the Project for Capacity Development of TAN.

- (1) The JICA expert has worked on the schedule as Attachment-1, Main activity as follow:
  1. To conduct ATS system capacity W/S data verification
  2. To hold on meeting of the expert reporting session of review operation manual in TAN.
  3. To hold on follow up Training Manual/Plan Dev W/S
  4. To hold on W/S of ATS system capacity
  5. To attend Runway Safety Team/ Plan coordination meeting.
  6. To hold on W/S Making Hazard Map procedure development
  7. To discuss further activities TF-1 and TF-2
- (2) TF-1 & TF-2 meeting on 22 January
  1. TF - 1 meeting and confirmed the schedule. TF-1 confirmed sub-activities 1-4 and 1-5.
  2. TF - 2 meeting, TAN planned to establish RST on the activities of RSP, but it became difficult as the authorities did organization reform. Therefore, we gathered the stakeholders and explained the role of RST and the procedure of creating a hazard map in a W/S.
- (3) ATS system capacity W/S data verification
  1. Expert held a briefing session on data collection to calculate control work load and explained it.
  2. TAN has launched Capacity Team and is in charge of this activity.
  3. At this briefing, discussion focused on how to select control events and how much data to collect.
  4. Ultimately, it was decided to select according to the control task of TAN.
  5. We used a radar simulator to evaluate newly selected events. Expert himself also made the conclusion that it is easy to describe survey items in order according to the flow of control.
  6. Also, in order to reduce the burden on the controllers in the field, we decided to investigate the time of each event by examining the radar data and the communication record regarding the typical event.



7. We decided to investigate and fill out special events on site. We agreed to carry out from today.
- (4) Expert reporting session for O/M review (result of study)
  1. Experts held a reporting session on the operation manual review.
  2. WG members of the operation manual participated in the session.
  3. Expert explained the efforts so far and reported on the analysis results of TAN operation manual. Among the 35 documents reviewed, there were 29 Findings such as the difference with ICAO PANS-ATM in 8 documents. Its contents are the separation on the VFR, the lateral separation, etc. In addition, regarding the items pointed out by the ICAO audit, expert reviewed focusing on RT-21 and reported the results.
  4. Finally, expert performed Recommendation based on this analysis. Recommendation are changing the procedure of landing clearance, introducing light gun, improving operation of follow-me-car, deleting separation on VFR, introducing MSAW, creating MVA map, and so on.
  5. The management side participated in the second half of the reporting session and expert again explained the recommendation.
  6. Management side instructed the members of WG necessary work for manual review. Basically, it showed an understanding to the Recommendation. After reconfirming the contents, TAN decided to proceed with considering revising necessary rules and to prepare for introducing light-gun, MVA map.
- (5) Follow up Training Manual/Plan Dev W/S
  1. Expert explained the purpose of this follow up training.
  2. Expert again confirmed what we are doing as the follow up of W/S, the purpose is to gather training materials and create a training material for OJT-I training.
  3. Team OJT-I considered the necessary documents for theoretical training.
  4. The tower, radar, approach, and ACC's training items are almost the same, so we focused on the ACC training items.
  5. After that, regarding other work, we reviewed and made necessary correction. This work was completed in the morning. From the afternoon we collected these documents.
  6. Since it is difficult to print all the documents after collection, we made it as a PDF for the time being, making one file for each job and putting it in it. These tasks ended in a day because the Team OJT - I everyone worked well.
  7. Again, we considered the contents of the training material by all member. We confirmed that there are no documents to add at the present time.
  8. The training material for OJT-I training to be submitted as a sample to Davlyatov was set as ACC and considered printing work.
  9. ACC's training material has 1,700 pages, considering issues such as a matter of time, printers for work, etc., we decided to request printing to the outside.
  10. Next, the OJT Annual Training Plan was considered. OJT instructor prepared for A draft training schedule for trainees.
  11. Expert received a report on the schedule of each instructor and described it on the sheet of 2018 Annual Training Plan for OJT.
  12. We submitted completed materials (PDF and printed ACC's) and a draft of 2018 Annual Training Plan for OJT to Mr. Davlyatov.
  13. Mr. Davlyatov signed 2018 Annual Training Plan for OJT.
- (6) W/S of ATS system capacity.
  1. The person in charge brought the most important collected data.
  2. Expert printed data collection sheet, distribute it to the team, and explain what to fill in.
  3. They collected data of 37 for ACC, 9 for APP and 8 for radar in the week of 22 to 28.
  4. We calculated probability of occurrence of control event and average work time of each event

- based on the data.
5. The results were entered into the capacity calculation matrix for each control system of ACC, APP, and Radar. The workload of the controller was calculated for each flight type such as arrival, departure, and overflight. It was necessary to decide the degree of difficulty for each event before this calculation.
  6. Expert displayed a sheet of Excel on a big display, input while looking at it, and work progressed. There was an obvious leak in the collected data, we also examined it and input the appropriate value.
  7. We confirmed the control processing capacity value we created yesterday. But, we concluded that the amount of data is not enough for the calculation work.
  8. We decided to pick up one foreign airline company to collect control work time from the radar data and communication record.
  9. The results were compared, particularly with regard to Radar position, there was an event missing in the actually collected data, so we tried to add it properly. Capacity team decided to collect the data of all scheduled flights for one day from the radar data and communication record.
  10. After collecting the data for one day, we compared with the already calculated data.
  11. Experts calculated control work load values based on new data (54 for ACC, 40 for APP, 29 for Radar) collected by Capacity Team.
  12. Capacity Team proposed a draft of ATC capacity in Dushanbe to Davlyatov.
- (7) RST coordination meeting and W/S making hazard map procedure development
1. Bakhtiyor and Expert reviewed the agenda and presentation materials of RST coordination meeting on 31 January.
  2. We carried out preliminary survey using car with the airport safety manager and his staff in for preparing a hazard map of Dushanbe Airport from 10 am to 11:30 am.
  3. We started from around the terminal building, then turned around the bypass road and gathered what seems to be a hazard.
  4. There were considered to hazards such as flow lines of pedestrians in restricted areas, animals' nests in drains, obstacles near helicopter parking areas.
  5. Mr. Bakhtiyor explained the ICAO standard based on the presentation using the Japanese side at East Mekong and the contents of the RST handbook at the RTS coordination meeting.
  6. Expert explained how to find a hazard in what viewpoint and make it as a map using concrete examples for airport (Matsuyama airport) and ATC hot spot (Sendai airport) respectively.
  7. After that, divided the member into two groups, use the grid map of Dushanbe Airport in W/S format, find a hazard, fill in the contents in post it and paste it. In other groups, risk assessment and occurrence frequency were examined for each hazard.
  8. The meeting started at 2 pm, W/S completed until 4:30 pm. It was a pretty hard day, but it was a meaningful day.
  9. The meeting agreed that Airport Safety Manager is a chairman of RST in Dushanbe. RST consists of pilot of the Somon Air and Tajik air, ATC supervisor of the TAN, airport engineer of the DIA, representatives from CAA. First RST in Dushanbe meeting will be held on 5<sup>th</sup> March.

## II. Next dispatch of the expert

- (1) Experts proposed tentatively that the next dispatch of expert will be as follow;  
/From 30<sup>th</sup> April to 11<sup>th</sup> May 2018: Mr. WATANABE (TF-1 & 2)
- (2) TF-1&2 agreed the schedule of the next dispatch.

As a result of the activity, both sides confirmed the matters referred to in the documents attached hereto



Dushanbe, Tajikistan  
2 February 2018

Mr. Bakhtiyor SHERALIEV  
Safety and Quality Manager  
Project Manager  
Leader of Task force 2  
SUE "Tajikairnavigation"

Mr. Hideo WATANABE  
Chief Advisor  
JICA Expert team of the project  
Japan International Cooperation Agency

Mr. Davron RAJABOV  
Head of ACC  
Leader of Task force 1  
SUE "Tajikairnavigation"

- Attachment-1: TF-1 & 2 Activity Plan**
- Attachment-2: The activities report (2-1~2-5)**
- Attachment-3: 2018 Annual Training Plan for OJT**
- Attachment-4: OJT-I Training material lists (4-1~4-4)**
- Attachment-5: ATS system capacity calculation result**
- Attachment-6: Next TF-1 & 2 Activity Plan**

## Attachment-1

Date		AM	PM	Remarks
20 Jan	S			Arrived by OZ202
21	S			
22	M	TF 1 & 2 meeting	ATS system capacity W/S data verify	entering pass is required at 8:50
23	T	Expert Reporting Session for O/M Review (result of study)		
24	W	W/S Operation Manual Review (improving O/M for 4 airports)		
25	T	F/U Material / Plan Dev W/S (training material and plan for 4 airports)		
26	F	F/U Material / Plan Dev W/S (training material and plan for 4 airports)		
27	S			
28	S			
29	M	W/S ATS system capacity in TAN (calculation methodology)		
30	T	W/S ATS system capacity in TAN (assessment for Dushanbe airport)		
31	W	Runway Safety Team / Plan coordination for 4 airports		
1 Feb	T	Making Hazard map procedure development		
2	F	TF1 & 2 meeting and MM signing	Report to JICA office	entering pass is returned
3	S			
4	S			Departed by OZ201

**Report on Activity****General:**

TF and Activities	Taskforce-1, ATC, Activity 1-5
Title	ATS system capacity WS verification
Terms	22 January 2018 (0.5 day)
Type	Others
Expert	Hideo Watanabe

**Lists of participants:**

Name	Position			
Mr. Gulomjon,				
Mr. Pairav , ,				
Mr. Abdurakhmon				
Mr. Abdukhailil,				
Mr. Sergey,				
Mr. Abdumutolib				
Mr. Hideo Watanabe				

**Input from Experts and Output from Activity:**

Input based on agenda at notification letter	Output	Follow-up
Expert explain how to collect the data for calculation ATS capacity.	Capacity team collect the data for calculation of ATS capacity.	W/S ATS system Capacity.

**List of Presentation Material and Handout (Available in web-side)**

Calculation work flow.pdf  
ATS system Capacity in TAN.pdf  
ACC & APP example of survey form.pdf

**Record of discussion**

Expert held a briefing session on data collection to calculate control work load and explained it. TAN has launched Capacity Team and is in charge of this activity. At this briefing, discussion focused on how to select control events and how much data to collect. Ultimately, it was decided to select according to the control task of TAN. We used a radar simulator to evaluate newly selected events. Expert himself also made the conclusion that it is easy to describe survey items in order according to the flow of control. Also, in order to reduce the burden on the controllers in the field, we decided to investigate the time of each event by examining the radar data and the communication record regarding the typical event.

**Conclusion and Recommendations**

We decided to investigate and fill out special events on site. We agreed to carry out from today.

**Report on Activity****General:**

TF and Activities	Taskforce-1, ATC, Activity 1-4
Title	Expert Reporting Session for Operation Manual / W/S operation manual review (improving O/M for 4 airport)
Terms	23 January 2018, 08:30-15:00 (1 days)
Type	Others
Expert	Hideo Watanabe

**Lists of participants:**

Name	Position	Daily attendance	Training abroad	Certificate
Mr. Mirzoev Firuz	WG Leader of Tower control			N/A
Mr. Payrav Najmidinovich	WG Leader of Approach control			
Mr. Satybaldyev Sergey	WG Leader of Area control			
Mr. Shambiev	FDDG			
Mr. Davlyatov	Head of ATS			
Mr. Sheraliev Bakhtiyor	Project Manager			
Mr. Davlon	Head of tower			
Mr. Watanabe	Chief Advisor			
Mr. Orita	Project coordinator			

**Input from Experts and Output from Activity:**

Input based on agenda at notification letter	Output	Follow-up
Expert reported Operation Manual Review	To consider the Operation Manual in TAN by three WGs. Reflect them in Operation Manual in TAN if necessary.	

**List of Presentation Material and Handout (Available in web-side)**

Expert Reporting Session for OM review.pdf

**Record of discussion**

Experts held a reporting session on the operation manual review.  
WG members of the operation manual participated in the session.  
Expert explained the efforts so far and reported on the analysis results of TAN operation manual.  
Among the 35 documents reviewed, there were 29 Findings such as the difference with ICAO PANS-ATM in 8 documents.  
Its contents are the separation on the VFR, the lateral separation, etc.  
In addition, regarding the items pointed out by the ICAO audit, expert reviewed focusing on RT-21 and reported the results.  
Finally, expert performed Recommendation based on this analysis.  
Recommendation are changing the procedure of landing clearance, introducing light gun, improving operation of follow-me-car, deleting separation on VFR, introducing MSAW, creating MVA map, and so on.  
The management side participated in the second half of the reporting session and expert again explained the recommendation.  
While confirming the contents one by one, they asked the grounds for the content of the recommendation.

**Conclusion and Recommendations**

Management side instructed the members of WG necessary work for manual review. Basically, it showed an understanding to the Recommendation. After reconfirming the contents, TAN decided to proceed with considering amendment necessary rules and to prepare introducing light-gun, MVA map.

**Report on Activity****General:**

TF and Activities	Taskforce-1, ATC, Activity 1-5
Title	F/U Manual/Plan Dev WS
Terms	25-26 Jan.2018, 08:30-17:00 (2 days)
Type	Others
Expert	Hideo Watanabe

**Lists of participants:**

Name	Position			
Mr. Gulomjon				
Mr. Umedjon				
Mr. Hotamjon				
Mr. Shuhrat				
Mr. Nizomjon				
Mr. Makhsudjon.				
Mr. Watanabe				

**Input from Experts and Output from Activity:**

Input based on agenda at notification letter	Output	Follow-up
Expert explain how to make training material (training handbook)	OJT-I team make the training Handbook for tower, radar, approach, ACC.	

**List of Presentation Material and Handout (Available in web-side)**

training material lists for ACC.pdf  
 training material lists for Approach.pdf  
 training material lists for Radar.pdf  
 training material lists for Tower.pdf

**Record of discussion**

Expert explained the purpose of this follow up training.  
 Expert again confirmed what we are doing as the follow up of W / S, the purpose is to gather training materials and create a training handbook.  
 Team OJT-I examined the necessary documents for theoretical training.  
 The tower, radar, approach, and ACC's training items are almost the same, so we focused on the ACC training items.  
 After that, regarding other work, we reviewed and made necessary correction.  
 This work was completed in the morning. From the afternoon we collected these documents.  
 Since it is difficult to print all the documents after collection, we made it as a PDF for the time being, making one file for each job and putting it in it.  
 These tasks ended in a day because the Team OJT - I everyone worked well.  
 Again, we confirmed the contents of the handbook by all member.  
 We confirmed that there are no documents to add at the present time.  
 The handbook to be submitted as a sample to Davlyatov was set as ACC and considered printing work.  
 ACC's handbook has 1,700 pages, considering issues such as a matter of time, printers for work, etc., we decided to request printing to the outside.  
 Next, the OJT Annual Training Plan was considered.  
 OJT instructor prepared for A draft training schedule for trainees.  
 Expert received a report on the schedule of each instructor and described it on the sheet of OJT Annual Training Plan 2018.

**Conclusion and Recommendations**

We submitted a completed handbook (PDF and printed ACC handbook) and a draft of OJT Annual Training Plan 2018 to Davlyatov.



## Report on Activity

### General:

TF and Activities	Taskforce-1, ATC, Activity 1-4
Title	W/S ATC capacity calculation
Terms	29-30 January 2018 (2 days)
Type	workshop
Expert	Hideo Watanabe

### Lists of participants:

Name	Position			
Mr. Gulomjon,				
Mr. Pairav , ,				
Mr. Abdurakhmon				
Mr. Abdukhalil,				
Mr. Sergey,				
Mr. Abdumutolib				
Mr. Hideo Watanabe				

### Input from Experts and Output from Activity:

Input based on agenda at notification letter	Output	Follow-up
Expert explain how to calculate ATC capacity	Capacity Team make ATC capacity for ACC, APP and Radar	

### List of Presentation Material and Handout (Available in web-side)

ATS system capacity calculation result.pdf  
 Calculation work flow.pdf

### Record of discussion

The person in charge brought the most important collected data.  
 Expert already sent sheets to use it yesterday, but there was not printed it yet. Expert printed it here, distribute it to the team, and explain what to fill in.  
 In the week of 22 to 28, they collected data of 37 for ACC, 9 for APP and 8 for radar.  
 Based on the data, probability of occurrence of control event and average work time of each event were calculated.  
 The results were entered into the capacity calculation matrix, and for each control system of ACC, APP, and Radar, the workload of the controller was calculated for each flight type such as arrival, departure, and overflight.  
 It was necessary to decide the degree of difficulty for each event before this work.  
 Based on the case of Japan, I reviewed the team and decided the immediate value.  
 Expert displayed a sheet of Excel on a big display, input while looking at it, and work progressed.  
 There was an obvious leak in the collected data, we also examined it and entered the appropriate value.  
 Somehow, we were able to calculate all the workload at 17 o'clock.  
 Tomorrow, I decided to calculate this value again and confirm it.  
 We confirmed the control processing capacity value we created yesterday. Again, we concluded that the amount of data is small.  
 We picked up one foreign airline company and decided to calculate the workload from the radar data and communication record.  
 The results were compared. Particularly with regard to Radar, there was an event missing in the actually collected data, and we decided to add it. However, as a team, we decided to check the data of all scheduled flights for one day.  
 After collecting the data for one day, we compared with the already calculated data.  
 Experts calculated control work load values based on new data collected by Capacity Team.

### Conclusion and Recommendations

Capacity Team proposed a draft of ATC capacity in Dushanbe to Davlyatov.

**Report on Activity****General:**

TF and Activities	Taskforce-2, ATC, Activity 2-2-4
Title	RST coordination meeting and W/S making hazard map procedure development
Terms	31 January 2018 (1 days)
Type	workshop
Expert	Hideo Watanabe

**Lists of participants:**

Name	Position			
Mr. Khasan Saidov				
Mr. Femi Olowoyeye				
Mr. Davlatov S.S.				
Mr. Davlyatov				
Mr. Bakhtiyor				
Mr. Orita				
Mr. Watanabe				

**Input from Experts and Output from Activity:**

Input based on agenda at notification letter	Output	Follow-up
Expert explain example of hazard map in Japan	Create hazard Map in Dushanbe Airport.	Monitoring hazard map in May 2018

**List of Presentation Material and Handout (Available in web-side)**

RJSS ATC HAZARD MAP.pdf  
 Airport Hazard Mapping.pdf

**Record of discussion**

Expert reviewed the agenda and presentation materials of today's RST coordination meeting with Bakhtiyor.  
 From 10 o'clock to 11:30, we took a car survey with the airport safety manager and his staff in preliminary survey for preparing a hazard map of Dushanbe Airport.  
 From around the terminal building, we turned around the bypass road and gathered what seems to be a hazard.  
 Flow lines of pedestrians in restricted areas, animals' nests in drains, obstacles near helicopter parking areas were considered as hazards.  
 At the RTS coordination meeting, Bakhtiyor explained the ICAO standard based on the presentation using the Japanese side at East Mekong and the contents of the RST handbook.  
 Expert explained how to find a hazard in what viewpoint and make it as a map using concrete examples for airport (Matsuyama airport) and ATC hot spot (Sendai airport) respectively.  
 After that, divide the group into two groups, use the grid map of Dushanbe Airport in W/S format, find a hazard, fill in the contents in post it and paste it. In other groups, risk assessment and occurrence frequency were examined for each hazard.  
 The meeting started at 14 o'clock, W / S lasted until 16:30. It was a pretty hard day, but it was a meaningful day.

**Conclusion and Recommendations**

RST in Dushanbe, Airport safety manager is leader of making airport hazard map, Somon Air safety manager and TAN ATC supervisor both is a leader of making ATC hot spot (hazard) map. They are continuing to make hazard map and risk assessment.

### 2018 Annual Training Plan for OJT

UT DD	OJT Instructors				Training Mode			OJT Trainees				Materials		OJT Schedule					
	Instructor Name Certificate / Approval	Existing Ratings		Working Position	Obtaining Ratings	Add New	Training Hours	Candidates of Trainees				Training Materials	Theoretical Trainings	Simulator Trainings	Practical Trainings				
	T: ICAO #219 O: OJT-I training (Ack) W: Material/ Plan WS(C) T: TAN OJT-I approval (remarks)	Tower	Radar	Approach	Area	Super-V Tower Radar ACC Briefing Others	Tower Radar Area-DD Area-DL	"A" or "N" or "-"	Theoretical + Simulator + Practical (hours)	Name	Tower	Radar	Approach	Area	Super-V Tower Radar Approach Area Others	D/L/T/K + Tower Radar Approach Area	2018/ MMDD- MMDD	T: Tower R: Radar + 2018/ MMDD- MMDD	2018/ MMDD- MMDD
								A	120+75+225	Ergashev Abdurahmon					Approach	D-Tower	0115-0202	T/0205-0223	0225-0412
	Kayumov Gulomjon I/O/W	D	D	D		Tower Radar Radar	Tower Radar	A A	120+75+225	Sattarov Rakhmatjon	D			D	Area	D-Radar	0903-0921	0924-1012	1013-1128
	Makhmudov Umedjon I/O/W	D		D	D	ACC ACC	Approach Tower	A A	120+75+225 116+10+154	Shonazarov Shahboz Kadyrov Manuchekhr		D	D	D	Area Other	D-App D-Tower	0301-0326 0801-0821	0327-0417 0823-0824	0418-0604 0826-0927
	Rahimov Hotamjon I/O/W	D	D	D	D	ACC ACC	Approach Approach	A A	120+75+225 120+75+225	Nazarov Akmal Adylov Abdukayum				D	Area Area	D-App D-App	0122-0209 0502-0522	0212-0302 0523-0612	0305-0421 0613-0730
	Shukurov Shuhrat I/O	D		D	D	ACC ACC ACC	Area-DD Approach Tower	N A A	116+10+154 120+75+225 120+75+225	Azimov Khurshed Satybaldiyev Sergey Nishonov Abdumutolib				D	Area Area Tower	D-App D-App L-Area	1220-0110 0302-0323 0903-0921	R/0111-0118 0326-0414 0922-0925	0119-0216 0415-0522 0926-1124
DL	Okilov Makhjudjon I/O	L	L	L		ACC ACC	Area-DL Area-DL	A A	120+75+225 120+75+225	Babayev Akmaljon Rakhimov Nuriddin	D D				Tower Tower	L-Area L-Area	0301-0324 0801-0821	0326-0413 0823-0912	0416-0530 0913-1030
DT	Nabijonov Nizomjon I/O	T				Super-V Super-V	Tower	N	116+10+154	Marupov Rakhmatjon					Briefing	T-Tower	0301-0320	0326-0327	0328-0424
DK	xxx ( )					- -	- -	- -	- -	- -									

#### Required Training hours

ОБЪЕМ СТАЖИРОВКИ ПЕРСОНАЛА ОБД НА ДИСПЕТЧЕРСКИХ ПУНКТАХ ПРИ ПОЛУЧЕНИИ ДОПУСКА К РАБОТЕ

	Должность	Время стажировки, час		Время выполнения с работниками диспетчерских пунктов, час
		На рабочем месте	На тренажере	
(GND) Tower	Диспетчер ДПР	90	10	40 (АДП СДП ВСДП)
	Диспетчер СДП ВСДП	200	10	70 (ДПК ПДП ДПСД ДПР)
Approach	Диспетчер ДПП (АДП АДП)	300(400)	75	45 (ДПК ПДП ДПСД СДП РУ ДПР)
Radar	Диспетчер ДПК (ДПР МВЛ Вышка)	300(400)	75	45 (ДПП (ВЛПП) ПДП СДП ВСДП)
Area	Диспетчер РД ВРД ЕС ОбВЛ с правом ОбВЛ	300(400)	75	45 (ДПК КДП МВЛ ВДП взаимодействующие РУ (ВРД) ЕС ОбВЛ и другие смежные пункты ОбВЛ)
		Practical	Sim	

Approval on OJT Instructor	Старшие диспетчеры, руководители полетов диспетчеры - инструкторы	Practical		Sim
		170		
				100 (все диспетчерские пункты ОбВЛ данного аэродрома (данного района ОбВЛ - для руководителей полетов района), смен взаимодействующих при ОбВЛ соседнего аэродрома)

*[Signature]*  
ATC Head, Daviyatov Daviyat

January 26, 2018

Attachment-4-1  
ACC training program

Theoretical training (ACC program)	Material
1. Study of the organizational structure of the air navigation system of the Republic of Tajikistan.	Structure of TAN
	United system of organization of air movement of RT
2. Acquaintance with the general technological process of the ATC at the control center.	Operation Manual of ACC (O/M)
	Job description of "ACC" controller
	Manual of use RVSM
	Agreement with ATC rooms of neighboring countries concerning ATS procedures and coordination
3. Acquaintance with the reference materials of the control center.	GAR-30
	GAR-21
	Aviation flight rules of RT
	Rules of use of air space of RT
	Air Code of RT
	Aviation rules concerning organization of air movement of RT
4. Study of the order and features of interaction with adjacent control centers (ATC sectors)	O/M
	LOA another ACC
	Coordination with air force and air defense forces.
5. Study of the order of	O/M

Attachment-4-1  
ACC training program

interaction with adjacent control centers (ATC sectors), air force and air defense forces.	Coordination with air force and air defense forces.
6. Acquaintance with meteorological support of the control center.	Manual of use AVIMET system and all meteorological equipment.
7. Acquaintance with the means of the radio navigation and communication system and ATC at the control center.	Manual of use "Master" system
	Manual of use "Frequentis" system
	Manual of use "MLAT" system
8. Study of the job description and technology of the controller's work.	O/M
	Job description manual
9. Study of the rules of radio communication and the phraseology of radio communication.	GAR-30
	ICAO doc 9432
10. Study of the main provisions of international regulatory documents on air navigation.	ICAO PANS-ATM doc 4444

Attachment-4-2  
Approach training program

Theoretical training (Approach)	Material
1. Study of the organizational structure of the air navigation system of the Republic of Tajikistan.	Structure of TAN
	United system of organization of air movement of RT
2. Acquaintance with the general technological process of the ATC at the control center.	Operation Manual of Approach (O/M)
	Job description of "Approach" controller
	Agreement with ATC rooms of neighboring countries concerning ATS procedures and coordination
3. Acquaintance with the reference materials of the control center.	GAR-30
	GAR-21
	Aviation flight rules of RT
	Rules of use of air space of RT
	Air Code of RT
	Aviation rules concerning organization of air movement of RT
4. Study of the order and features of interaction with adjacent control centers (ATC sectors)	O/M
	LOA another ACC
	Coordination with air force and air defense forces.
5. Study of the order of interaction with adjacent control centers (ATC sectors), air force and air defense forces.	O/M
	Coordination with air force and air defense forces.

Attachment-4-2  
Approach training program

6. Acquaintance with meteorological support of the control center.	Manual of use AVIMET system and all meteorological equipment.
7. Acquaintance with the means of the radio navigation and communication system and ATC at the control center.	Manual of use "Master" system
	Manual of use "Frequentis" system
8. Study of the job description and technology of the controller's work.	O/M
	Job description manual
9. Study of the rules of radio communication and the phraseology of radio communication.	GAR-30
	ICAO doc 9432
10. Study of the main provisions of international regulatory documents on air navigation.	ICAO PANS-ATM doc 4444

Attachment-4-3  
Radar training program

Theoretical training (Radar)	Material
1. Study of the organizational structure of the air navigation system of the Republic of Tajikistan.	Structure of TAN
	United system of organization of air movement of RT
2. Acquaintance with the general technological process of the ATC at the control center.	Operation Manual of Radar (O/M)
	Job description of "radar" controller
	IFR SID/STAR
	VFR Charts
	Chart of emergency landing after take-off
	Table of QNH/QFE
3. Acquaintance with the reference materials of the control center.	GAR-30
	GAR-21
	Aviation flight rules of RT, Rules of use of air space of RT
	Air Code of RT
	Aviation rules concerning organization of air movement of RT
4. Study of the order and features of interaction with adjacent control centers	O/M
	Coordination with air force and air defense forces.
5. Study of the order of	O/M



Attachment-4-3  
Radar training program

interaction with adjacent control centers (ATC sectors), air force and air defense forces.	Coordination with air force and air defense forces.
6. Acquaintance with meteorological support of the control center.	Manual of use meteorological system* and all meteorological equipment.
	*AVIMET(UTDD)
	*CRAMS(UTDT)
7. Acquaintance with the means of the radio navigation and communication system and ATC at the control center.	Manual of use "Master" system
	Manual of use "Frequentis" system
8. Study of the job description and technology of the controller's work.	O/M
	Job description manual
9. Study of the rules of radio communication and the phraseology of radio communication.	GAR-30
	ICAO doc 9432
10. Study of the main provisions of international regulatory documents on air navigation.	ICAO PANS-ATM doc 4444

Attachment-4-4  
Tower training program

Theoretical training (Tower)	Material
1. Study of the organizational structure of the air navigation system of the Republic of Tajikistan.	Structure of TAN
	United system of organization of air movement of RT
2. Acquaintance with the general technological process of the ATC at the control center.	Operation Manual of Tower (O/M)
	Job description of "tower" controller
	Technological coordination with aerodrome services
	IFR SID/STAR
	VFR Charts
	Chart of emergency landing after take-off Table of QNH/QFE
3. Acquaintance with the reference materials of the control center.	GAR-30
	GAR-21
	Aviation flight rules of RT
	Rules of use of air space of RT
	Air Code of RT
	Aviation rules concerning organization of air movement of RT
4. Study of the order and features of interaction with adjacent control centers (ATC sectors)	O/M
	Coordination with air force and air defense forces.

Attachment-4-4  
Tower training program

5. Study of the order of interaction with adjacent control centers (ATC sectors), air force and air defense forces.	O/M
	Coordination with air force and air defense forces.
6. Acquaintance with meteorological support of the control center.	Manual of use meteorological system* and all meteorological equipment.
	*AVIMET(UTDD),
	*CRAMS(UTDT)
	*TRANS OMIS RF(UTDL)
7. Acquaintance with the means of the radio navigation and communication system and ATC at the control center.	Manual of use "Master" system
	Manual of use "Frequentis" system
	Manual of use lighting system
	Manual of use MLAT(UTDT)
8. Study of the job description and technology of the controller's work.	O/M
	Job description manual
	Instruction of production of flight in aerodrome
	Technological coordination with aerodrome services
9. Study of the rules of radio communication and the phraseology of radio communication.	GAR-30
	ICAO doc 9432
10. Study of the main provisions of international regulatory documents	ICAO PANS-ATM doc 4444

Attachment-4-4  
Tower training program

on air navigation.	
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## Next dispatch schedule (30 Apr. – 11 May. 2018)

Date		AM	PM	Remarks
28 Apr	S			
29	S			SZ201
30	M	TF-1& TF-2 meeting	PCM (for JCC/3)	ID pass Receive
1 May	T	Observation OJT-I		
2	W	Observation OJT-I		
3	T	Observation OJT-I		
4	F	Review Observation OJT-I		
5	S			
6	S			
7	M	Observation CP exercise	Monitoring hazard map	
8	T	W/S confirmation for result 1-4		
9	W	Preparation for JCC		
10	T	Preparation for JCC		
11	F	JCC/3	MM signing, report to JICA office	ID pass return
12	S			
13	S			SZ202



## Meeting for

### “The Project for Capacity Development in Air Traffic Services” in Tajikistan

Dushanbe, 5th February 2018

14  
The 14<sup>th</sup> TF-1 Meeting for “The Project for Capacity Development in Air Traffic Services” (hereinafter “the Project”) was held at ~~10:00-10:30 on 9 October 2018~~ at the Project Office.  
*10:00 ~ 11:30 on 5 Feb*

Mr. Orita (PC), Mr. Sakae (Co-Chief Advisor), Mr. Davlyatov (Head of ATC), Mr. Mansuri (TF1 Sub Leader) attended this meeting.

There are two objectives for this meeting.

1) To confirm the schedules for observations by the AD SIM expert of OJTs by three (Mr. Gulov Fridavs, Mr. Khusenov Payrav, Mr. Kurbanov Sarvardzhan) instructors from Dushanbe airport.

2) To confirm the attendees (Mr. Sharipov Sino (K), Gufarov Bakhridin (Q), Mr. Rashidov Fridavs (H), Mr. Kurbanov Savardzhan) from Regional Airports and contents of the follow up training.

#### **Aerodrome Simulator Trainers’ Training**

1. 5<sup>th</sup> -9<sup>th</sup> of Feb.

AD SIM expert observes the OJTs by the instructors and evaluate the training with the instructors. The expert will confirm trainings carried out during the January and evaluate the training plans and AD SIM operations.

2. 13<sup>th</sup> -16<sup>th</sup> of Feb.

During the period, the AD SIM expert will conduct follow up training to the trainees who could not attend last project activities. First the expert will make brief review of the basic lecture on the AD SIM operations. Then make realistic scenarios for each airport. During later part of the week the expert conduct observation of the OJT by the trainers and evaluate the training with the CP trainers.

#### **Other business (if any)**

Dushanbe, Tajikistan  
5<sup>th</sup> February 2018

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Mr. Davlat DAVLYATOV  
Head of ATC  
Leader of Task force 1  
SUE “Tajikairnavigation”

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Mr. Akio SAKAE  
Co-Chief Advisor  
JICA Expert team of the project  
Japan International Cooperation Agency

## Attachment 2

## TF-1 Activity Plan (5 to 9 Feb 2018)

Date		AM	PM	Remarks
3	S			arrived KC131
4	S			
5	M	TF1 Meeting	Training observation	
6	T	Training Observation	Evaluation And Lecture on Training	<i>+ operators ?</i>
7	W	Training Observation	Evaluation And Lecture on Training	
8	T	Training Observation	Evaluation And Lecture on Training	
9	F	Training Observation	Evaluation And Lecture on Training	
10	S			
11	S			
12	M	Evaluation on Sim OP Management	Evaluation on Sim OP Management	-
13	T	Evaluation on Sim OP Management	Evaluation on Sim OP Management	
14	W	Evaluation AD Sim Operational Problems	Evaluation AD Sim Operational Problems	
15	T	Evaluation AD Sim Operational Problems	Evaluation AD Sim Operational Problems	
16	F	TF1 Meeting	Evaluation And Lecture on Training	
17	S			
18	S			depart KC132
19	M			

## Meeting for

### “The Project for Capacity Development in Air Traffic Services” in Tajikistan

Dushanbe, 16th February 2018

The 15<sup>th</sup> TF-1 Meeting for “The Project for Capacity Development in Air Traffic Services” (hereinafter “the Project”) was held in ACC at 10:00-11:00 on February 2018.

Mr. Orita (PC), Mr. Bakhtiyor (PC TAN), Mr. Sakae (ADSIM Expert), ~~Mr. Davlyatov~~ (Head of ATC), Mr. Davlon (Sub-Leader of Task Force 1) attended this meeting. *Mr. Mansuri, Mr. Payrav*

#### Aerodrome Simulator Trainers’ Training

1. Observation of OJTs by expert.

AD SIM expert observed the OJTs done by 3 trainers (Mr. Gulov Firdavs, Mr. Khusenov Payrav, Mr. Kurbonov Sarvar) from Dushanbe airport and 3 trainers (Mr. Sharipov Sino (K), Gafarov Bakhridin (Q), Mr. Rashidov Firdavs (H)) from regional airports and confirmed that they all successfully completed the course.

2. Follow up training for trainers from regional airports.

AD SIM expert made follow up training to the trainers from regional airports. First the expert made brief review of the basic lecture on the AD SIM operations. Then they made realistic scenarios for each airport.

#### Recommendations

1) Operation Record is not well kept.

Some of the operations are not recorded or not sufficiently recorded? Operation records are key information for DB maintenance and malfunction fixing. They should be kept correctly and regularly reviewed.

2) File maintenances are not regularly done.

DB and files concerning scenarios should be regularly backed up and updated.

3) Malfunctions are left unattended

Some of the malfunction directly affects the effective use of AD Simulator. They should be corrected during the periods of guarantee.

4) The use of AD-SIM as a training aid for the Aerodrome control training is not defined.

The use of AD-SIM should be ruled with in an Aerodrome Instructor qualification rules.

#### Other business (if any)





Attachment-1 Scenario Coding Sheet

Attachment-2 Tower Simulator activity plan

Attachment-3 Follow up Training (AD-SIM supplementary manual)

Attachment-4 Certificate of completion for regional airport

Attachment-5 Certificate of completion

Attachment-6 Certificate of attendance for regional airport

Attachment-A Report on Activity Follow-up training on Aerodrome Control and Observation of OJT

Attachment-B Report on Activity Observation of OJT

Dushanbe, Tajikistan

16<sup>th</sup> February 2018

A handwritten signature in blue ink, appearing to read "Davlat DAVLYATOV".

Mr. Davlat DAVLYATOV

Head of ATC

Leader of Task force 1

SUE "Tajikairnavigation"

A handwritten signature in blue ink, appearing to read "Akio SAKAE".

Mr. Akio SAKAE

Co-Chief Advisor

JICA Expert team of the project

Japan International Cooperation Agency

**Report on Activity****General:**

TF and Activities	Taskforce-1, ATC, Activity 1-7
Title	Follow-up training on Aerodrome Control and observation of OJT
Terms	13-15 February 2018
Type	Training with certificate (attendance for Follow UP, completion for OJT)
Expert	Akio Sakae

**Lists of participants:**

Name	Position	Daily attendance	Training abroad	Certificate
Mr. Sharipov Sino(K)	AD	Full attendance	ICAO#211	Attendance, Completion
Mr. Gafarov Bakhriddin(Q)	AD	Full attendance	ICAO#211	Attendance, Completion
Mr. Rashidov Firdavs(H)	AD	Full attendance	ICAO#211	Attendance, Completion

**Input from Experts and Output from Activity:**

Input based on agenda at notification letter	Output	Follow-up
*Example scenario of minimum settings	(Scenarios)	
*Practical considerations for making good scenarios	Kulob12022018 FIRDAVSR	
*AD SIM instructor must well versed in (8points)	Sna_3_Dep_and Arr 4 Dep and 4 arr Firdavs Rashidov	
AD SIM operation and management rules (All ADD to AD-Sim Supplementary Manual)	3 departure and 3 ARR Sino	

**List of Presentation Material and Handout (Available in web-side)**

Attachment-1 Scenario Coding Sheet  
Attachment-2 Tower Simulator activity plan  
Attachment-3 Follow up Training (AD-SIM supplementary manual)  
Attachment-4 Certificate of completion for regional airport  
Attachment-5 Certificate of completion  
Attachment-6 Certificate of attendance for regional airport

**Questions & Answers:**

Question by participants	Answers by Expert	Status
What are the minimum entry for the departure and arrival.	You can use default value (used previous scenario) for general and weather entries. For departure 1)Ship Model 2)Call sign 3)Runway 4)Spot then check pause at start. For arrival 1),2),3)4) are the same, then select route and point on that route.	Settled / Open  Settled
Is it possible to measure airport capacity using AD-SIM?	Yes. It is said that AD-SIM is a very effective tool for the capacity measurement. But before using simulator you have to make fine tuning on the maneuvers of the aircraft so that aircraft movements are as realistic as possible.	Settled

**The criteria for the issuance of certificates (if any)**

Certificate Test(70%) , Attendance (Set by Expert) for Training,  
Certificate of Attendance Test(N/A), Attendance (Set by Expert) for no test activities, W/S

## What participants have learned

Participants are reconfirmed the knowledge acquired during last training.  
Participants learned the importance of the time line along which landing and departure take place.

## Summary of evaluation questioner by participants

Question	Average of Result (Low 1- 5 High)
1. How would you rate the usefulness of the content?	N/A
2. How would you rate the hands-on activities?	N/A
3. How would you rate the presenter's knowledge in the subject?	N/A
4. How would you rate the presenter's style of teaching?	N/A
5. How would you rate the pace of the presentation?	N/A
6. Was the seminar above or below your current skill level?	N/A
7. What did you like best or find most useful about the presentation? N/A	
8. What skills did you learn that may help prepare you for technology integration in the classroom? N/A	
9. Were your personal learning goals for the course met? If "No," please describe those expectations that were not met. N/A	

## Conclusion and Recommendations

All Scenarios are well made and operated effectively.

Following are points to be considered for more training effective scenario making.

\*Pick up trainee's opinions and improve qualities of scenarios.

\*ETDT/EATs consists basic time line and should be informed to the trainee.

\*Ground speed should be adjusted to reflect realistic aircraft maneuver on the ground.

(For Speed Low, High and direct entry to IAS are available.)

Also using Ship Editor (Adjustment and Modification of DB) you can change basic maneuver of aircraft.

\*G/A \*EM, Abnormal Cases (cf. Manual on Air Traffic Controller Competency-based Training and Assessment Doc 10056)

\*Make good use of Replay function for debriefing

\*Increase number of scenarios and also improve their contents.

**Report on Activity****General:**

TF and Activities	Taskforce-1, ATC, Activity 1-7
Title	Observation of OJT
Terms	5-9 February 2018
Type	Training with certificate (attendance for Follow UP, completion for OJT)
Expert	Akio Sakae

**Lists of participants:**

Name	Position	Daily attendance	Training abroad	Certificate
Mr. Khusenov Payrav	AD	02/07,02/15	ICAO#211	Completion
Mr. Gulov Firdavs	AD	02/06,02/15	ICAO#211	Completion
Mr. Kurbonov Sarvar	AD	02/15	ICAO#211	Completion

**Input from Experts and Output from Activity:**

Input based on agenda at notification letter	Output	Follow-up
*Example scenario of minimum settings	(Scenarios)	
*Practical considerations for making good scenarios	Fira Sna_3_Dep_and Arr	
*AD SIM instructor must well versed in (8points) (All ADD to AD-Sim Supplementary Manual)	Pay	

**List of Presentation Material and Handout (Available in web-side)**

Attachment-1 Scenario Coding Sheet  
Attachment-2 Tower Simulator activity plan  
Attachment-3 Follow up Training (AD-SIM supplementary manual)  
Attachment-4 Certificate of completion for regional airport  
Attachment-5 Certificate of completion  
Attachment-6 Certificate of attendance for regional airport

**Questions & Answers:**

Question by participants	Answers by Expert	Status
What are the minimum entry for the departure and arrival.	You can use default value (used previous scenario) for general and weather entries. For departure 1)Ship Model 2)Call sign 3)Runway 4)Spot then check pause at start. For arrival 1), 2), 3), 4) are the same, then select route and point on that route.	Settled / Open  Settled
For the between two aircraft at what distance system brakes is applied.	The exact distance is not open. (If you think it is necessary to adjust the value you should ask to the provider.)	Settled

**The criteria for the issuance of certificates (if any)**

Certificate Test(70%) , Attendance (Set by Expert) for Training,  
Certificate of Attendance Test(N/A), Attendance (Set by Expert) for no test activities, W/S

## What participants have learned

---

Participants are reconfirmed the knowledge acquired during last training.

Participants learned the importance of the time line along which landing and departure take place.

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## Summary of evaluation questioner by participants

Question	Average of Result (Low 1- 5 High)
1. How would you rate the usefulness of the content?	N/A
2. How would you rate the hands-on activities?	N/A
3. How would you rate the presenter's knowledge in the subject?	N/A
4. How would you rate the presenter's style of teaching?	N/A
5. How would you rate the pace of the presentation?	N/A
6. Was the seminar above or below your current skill level?	N/A
7. What did you like best or find most useful about the presentation? N/A	
8. What skills did you learn that may help prepare you for technology integration in the classroom? N/A	
9. Were your personal learning goals for the course met? If "No," please describe those expectations that were not met. N/A	

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## Conclusion and Recommendations

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1) Operation Record is not well kept.

Some of the operations are not recorded or not sufficiently recorded? Operation records are key information for DB maintenance and malfunction fixing. They should be kept correctly and regularly reviewed.

2) File maintenances are not regularly done.

DB and files concerning scenarios should be regularly backed up and updated.

3) Malfunctions are left unattended

Some of the malfunction directly affects the effective use of AD Simulator. They should be corrected during the periods of guarantee.

4) The use of AD-SIM as a training aid for the Aerodrome control training is not defined.

The use of AD-SIM should be ruled with in an Aerodrome Instructor qualification rules.


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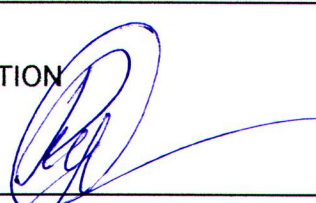
**Minutes of the sixteen Taskforce-1 Meeting (TF1M/16) for  
“The Project for Capacity Development in Air Traffic Services” in Tajikistan  
Dushanbe, 24 April 2018**


1. The TF1M/16 for “The Project for Capacity Development in Air Traffic Services” (hereinafter “the Project”) was held at 13:30-15:30 on 24 April 2018 in the ACC.
2. Project Manager organized this meeting, DDG, PM, Mr.Rdjyabov (TF1 Leader), Mr. Khusenov (TF1), Mr. Mansuri and PC participated.
3. The purpose of this meeting is finalizing TF1 activity 1-4 as listed below.
  - Reporting the result of assessment for ATC-1 Expert’s recommendation by Manual Review W/G.
  - To summarize the TAN’s decision.
4. Mr. Khusenov (TF-1 W/G) explained the result of assessment (Attachment-A) for necessity of revising the manual and higher regulations.
5. PM explained issues which were pointed out by USOAP, EANPG, ICVM1/2 and MAVa participated ATCs in 1-1 activities, then the meeting discussed fusibility of ATC-1 Expert’s recommendations one by one. (Attachment-B).
6. The meeting accepted #3 (Light Gun) and set deadline by the end of September 2018. TAN will make proposal to change the higher regulations of #6 to #9 to CAA first by Nov 2018, then if CAA will have no objection, TF-1 start to change the TAN’s manuals and replace training materials on theoretical part of OJT.
7. The meeting accepted #11 to #14 as “No Problem” and #a as “No Findings”. The meeting accepted ATC-1 Expert’s statement that noticeable findings of deferential between ICAO standard and current operation manuals in UTDL (Except 8H and 10H), UTDK and UTDT were not found by the analysis on 35 documents.
8. Decision for the other recommendations (#1,2,4,5,110,15,16) are described in Attachment-B.

Dushanbe, 24 April 2018

  
A. Shambiev  
First DDG  
TAJIKAIRNAVIGATION

  
B. Sheratiev  
Project Manager  
TAJIKAIRNAVIGATION

  
D. Rajabov  
Taskforce-1 Leader  
TAJIKAIRNAVIGATION

  
P. Khusenov  
Taskforce-1 Sub-Leader  
TAJIKAIRNAVIGATION

Attachment-A: Table of Assessment by W/G

Attachment-B: Summary on Activity 1-4 (20180424), 4 pages