

Minutes of combined TF1M/19 and TF3M/16 for "The Project for Capacity Development in Air Traffic Services" in Tajikistan Dushanbe, 12 June 2018

- 1. The TF1M/19 and TF3M/16 for "The Project for Capacity Development in Air Traffic Services" (hereinafter "the Project") was held at 10:00-13:00 on 12 June 2018 in the Safety Department Room.
- Project Manager organized this joint meeting, totally 10 participants of Mr. Shambiev (DDG), Mr. Rajabov (TF1 Leader), Mr. Khusenov (TF1 Sub-leader), Mr. Makhamadaminshoev (TF3 Leader), Mr. Khumorov (TF3 Sub-Leader), Mr. Akbar (TF1/3), Mr. Sergay(TF1), Mr. Ulugbeck and PC attended.
- 3. The purpose of this meeting was making management decisions for on-going TF1 and 3 activities.
- 4. Agenda:
- 1) 1-4 MVA Map/Chart creation

Meeting discussed technical things and set the deadline on each task as a table below. This table is based on technical discussions in 4 to 11 June by TF1 and 3, then concluded MM on TF1M/18 in 8th June 2018.

1	Items	Discussion and conclusion
1	Required MVA Chart/Map	The meeting decided to make the MVA Chart/Map for the UTDD approach area and ACC area.
2	MVA Chart/Map Cover range	Since TAN is using WAM+SSR multi sensors environment, meeting agreed that the MVA Chart /Map coverage will be 60km from UTDD RWY center, same as Project procured WGS-84 1/200,000 Map by FAZO. (It is not equal as SSR coverage area from the center of radar site.) For the ACC area, Joint team study JEPPSEN chart and decide technical specification by 31 Aug.
3	Existing Caution Line	TF1/3 decided to ignore the existing caution lines in Valzob area (FL180-190), because it is old and nobody verified. Working Team will reconsider this caution lines in newly developing MVA Chart/Map.
4	Technical requirements	In TF1M/18, Mr. Payrav promised to consult ATC Expert about segmentations, clearance and other technical issues, but not completed yet. He will discuss TF3 and send e-mail to the Expert by 15 June.
5	Clearance in approach area	ATC-1 Expert advised that it is better to use 2,000ft even approach area in "MVA Map Dev". PM and TF1/3 found that there is deferential of ICAO Annex-4, Doc8168 and Doc8697. Meeting decided to assign the investigation of technical specification.
6	Type of Outcomes	The meeting decided three outcomes as below. 1) MVA Chart layer in MASTER display and Radar Simulator. 2) MVA Map in paper.
7	Approval, AIP and others	The meeting confirmed MVA Chart/Map will be required CAA's approval. After completed draft, TAN will send a letter to CAA for obtaining authorization same as WGS-84.
8	User trainings and O/M change	Meting confirmed that Operation Manual change and user training are required. WG will investigate the higher document change by CAA will be required or not.
9	Consider the error of surveillance	Meeting agreed that it is no need consideration for precision on Radar. PC explained that altitude information is obtaining mode-C transponder or ADS-B broadcast from aircraft in WAM+SSR environment. In this regard, it is no need to consider the Z-axis accuracy, also possible to disregard the X/Y-plane accuracy because of the multi-sensor system's performance.
10	Annual inspection	Although ATC-1 Expert suggested that only newly constructed obstacles should be inspected annually, the meeting concluded that it is needs to analyze ICAO recommendations, how and who conduct annual inspection for newly constructed obstacles annually.
	Responsibility and Deadline	Mr. Shambiev order to make MVA Chart/Map for joint team of TF1 and 3. He assigned the responsible persons and set deadlines as below. -TF1 (TF1's Project activity): Mr. Payrav assigned Mr. Firudvs as ATC -TF3: Mr. Khumorov assigned Mr. Akbar as Flight Procedure Designer -The technical discussion will be held by joint team by 15 June. -Mr. Payrav will send Expert e-mail for clarifying un-clear instructions on "MVA Map Dev" by 14 June. -The joint team conduct technical analysis for Approach Area by 14 Sep, for ACC by 31 Aug. -APP/ACC Chart drafting deadline is set in 28 Sep, Approval by CAA by 31 Oct. -Install MVA Chart layer in to Master, deploy MVA Map to ATC and AD Sim training start by 31 Oct.
12	Flight Check	ATC-1 Expert instructed that the flight check by actual aircraft is not necessary. The meeting accepted this.
	Segmentation (sectorization)	PC asked more detail and Japanese instructions of the description on "Make the outer edge of the segment as consistent as possible with the azimuth, distance or fix from the range mark, air safety wireless facility, aviation security wireless facility etc." to ATC-1 Expert, and waiting the reply.
14	Inquiring MAvA by PC	PC forwarded the reply e-mail from Malaysia in 8 June. They are using the term Surveillance Minimum Altitude (SMA) - refer Annex 4 Chapter 21 For calculation refer Doc 8168 PANS-OPS Chapter 6 para 6.2.2 i.e. 300m (984ft) above obstacle and 5NM (3NM within 20NM of Radar head) away from obstacle.



- Progress of other 1-4 tasks
 - a) Mr. Payrav committed to send the letter to CAA by 14 Sep. for requesting to change the higher documents in regard items #6, 7, 8 and 9. The meeting confirmed that it is premature and meaning less to draft those descriptions in TAN's Operation Manual before changing regulations by CAA.
 - b) Mr. Payrav will send the notification letter on item #4 to Dushanbe Airport (DIA) by 15 June. Project will close this item by confirming the copy of the letter above, because the "follow-me-car" operation is DIA's business.
- c) The meeting confirmed Light Gun task (item 3) as below.

-Conduct analysis for clarifying the document change is required or not by 19 June. -If Operation Manual Change will be required, revise it by 31 Aug.

- -Procure 4 sets of Light Gun by Rajabov by 31 Aug.
- -Complete radio frailer scenario making for AD Simulator by 28 Sep by TF1.
- DDG proposed to have the seminar in Sep.

PC reminded that this Item #3(Light-Gun) and #16 (MVA Map) are only visible outcomes from TF-1 1-4 activity which was implementing for the last two years as the 1-4 summary table below. Project hopes that TF1 will closely complete these items no later than JICA HQ's final evaluation mission in the early October 2018. The meeting and TF1 agreed on this opinion.

1-4 Summary table agreed at TF1M/16:

Summary on Activity 1-4 (20180424) External Audits Findings TF1
DAP EANPG CVM1 CVM2 Group1 ATC-1 Expert's Yoshida Watanabe Effecte 2017/2/8 2017/8/14/2017/10/9 18/1/15 UTDD TF1 MAvA Findings W/G & Effected Manuals Others USOAP EANPG CVM1 Group 2 MAvA-I 2016/10 2017/8 20181/238/2/2 (TF1M/13) +2/10 mail Airports 2008/7 2011/10 2015/6 2016/10 2016/7 found TF1(Manual Review W/G)'s status ompere erve alysi 1 Landing clearance Proc Yes Yes 40 Yes to prepare revised manuals by one onth before new ATC tower operation e an organization 4.5.3 2 Same frequency issue 4D 1.4 Yes o prepare revised manuals by one Yes inth before new ATC tower operation 6D 1.6 arate radio channel 1-7-10 ANS Yes Yes Introduce Yes Yes Yes Light Gun uy 4 sets by end of Sep 2018) Light gun 1)-e) Should introduce it) TAN will notice DIA Expert's finding. 4 Follow-me-car operation Yes Yes 40 (by the end of May 2018) 4.5.183 Return original p 10H 1.9 5 Low intensity of Air traffic 14D 1.9 Yes leed ATS Capacity Assessment Survey. Accepted (TAN will make proposal to 60 6 Separation VFR (5.2.1) Yes Yes Yes Yes CAA for changing it by Nov 2018) Accepted (TAN will make proposal to 7 Sepa VFR (5.2.1.282.3) Yes 6/8/14D 8/101-Yes CAA for changing it by Nov 2018) Accepted (TAN will make proposal to 8 Cross B 6/8/14D 8/10H Yes IFR Lateral separation Yes Yes Yes CAA for changing it by Nov 2018) Accepted (TAN will make proposal to Add Doc 4444 5.4.1 Lateral S 9 Separation VFR (5.2.3.2) Yes Yes 6/8/14D 8/10H CAA for changing it by Nov 2018) 10 Transfer control altitude Yes To pr ionth before new ATC tower operation. change Radar part) Accepted → But TOPSKY has eFPS 11 Introducing FPS Introduce Yes Yes Yes Yes (eFPS) 4.13.3. (No need to do anything) FPS (eFSP) ot Necessary 12 Radar Handove Rader ID Yes Accepted (No need to do anything) No Problem / No Hand-off 13 Speed control (Yes) Yes Yes Accepted Yes Speed Adjust 4.6.3.5 (No need to do anything) m / NO MASTER has STCA function, 14 STCA Yes 1-7-10 Yes but no procedure. (If no need, OK) em / No need) KNO F MASTER function is not fulfilled. No procedure, but improve SAW first Yes 15 MSAW Yes Necessary to describe) TAN will order to make new one to TF3. 16 MVA Map Chart Yes (by the end of Nov 2018) a Already Complied ICAO 17 Jan N/A Accepted xcept (No need to do anything for 3 airports) H/10 (No Findings) e-mail b Non-efficient Handovers New Proposa Need Coordination with UZ, AF, KG (Introduce full OLDI? in 28 Feb 2018

3. ATC and AD Capacity Assessment Methodology (additional task in 1-4)

In the TF1M/18, Mr. Payrav reported that 6 days data collection with using new survey forms for ATC and AD (RWY Capacity only) were started 5th June. The meeting confirmed the progress of assessment schedule as follows.

11 June: All ATC shift teams will submit the raw data to TF1 management.

12 June: Start calculation by 5 participants using Expert provided Excel forms.

13 June: Send filled excel forms to ATC-1 Expert.

29 June: Obtain the results (UTDD, ATC and AD (RWY) by Japanese methodologies.





The meeting asked Mr. Payrav the result of 3 days additional workshop in May for introducing Japanese methodologies and modify it to TAN. He answered that five participants received the certificates (attendance), and the survey forms (ATC and AD (RWY only), excel forms and Japanese methodology explanation papers were provided by ATC-1 Expert.

DDG ordered TF1 WG (5 participants) to verify the result figures by Japanese technologies first by 29 June, then WG should analyze Japanese, Uzbekistan, Russian and ICAO Docs and pick up appropriate part of technics by 31 July.

After verified the result of the analysis above, TF1 WG should make a draft of "ATC/AD Capacity Assessment Procedure Document in Tajikistan" by 28 Sep, then start process of approval by CAA. Then, TF1 WG will complete the survey by using this document for three airports by 1st Nov 2018.

For withstanding inquiry from CAA and ICAO, for example how to obtain this figure or what is a basis for peak volume model, the meeting agrees to make Tajikistan's original procedure document same as Uzbekistan which has clear descriptions about formulae and models in Tajik airspace.

The meeting agreed DDG's decision above.

4. 1-5 OJT-I Observation

In accordance with 1.6.4 in MM on TF1M/17, Mr. Shuhrat agree to translate "Check List" into Russian and use it, but the Meeting couldn't confirm the result of Russian version of the "Check List".

The updated OJT Annual Training Plan 2018 is not available yet, even Mr. Payrav committed to send it to the Expert in MM on TF1M/17.

PM will contact them for confirming progress by 14 June.

5. 1-5 Examination System Development

Refereeing to the four recommendations by ATC-1 Expert, PM confirmed outcomes one by one.

1) Implementing written examination / the examinations are done by PC (This isn't OJT theoretical part)

2) Determining the passing line / the passing lines are set as 75%, 80% and 95%?

3) Placing the instructor in the training room / the meeting will confirm TF1 management agreed it or not.
 4) Revising the necessary rules /?

With reference to the discussion on 3) above, PM commented that Mr. Mansuri was already assigned as the person in charge of the training. He will confirm Mr. Shuhrat the meaning of this 3) recommendations.

DDG ordered Mr. Payrav to check the all documents for examinations, then if the passing lines are not described in it, add it as it is by 26 June.

PC will ask ATC-1 Expert for the conclusion of 4) and actual outcomes of this activity.

6. ILS 27 FPD / GV issue (TF3)

PM explained the detail situation of RWY27ILS FPD outsourcing to szrcai (St.P) by DIA. PM confirmed that DIA has remitted 50% of payment in today, 8 June.

The meeting confirmed that a "Job Description" on FP designers will be made by Mr. Khumorov by 19 June under Mr. Firuz's oversight. After that, assigning two FP designers (Mr. Akbar and Mr. Ilhom) by 29 June, then other two by 20 July by AIS management.

The meeting agreed to dispatch Mr. Akbar to szrcai from 25 to 29 June for leaning design check and GV issue, using RWY27-ILS FPD outsourcing opportunity by the Project budget. PM explained that Project diverts the budget for FPD-QA training in China to this business trip. Instead of this treatment, FPD Expert made FPD-QA training in September. TF3 Leader Mr. Firuz requested the Project to send two (one FPD designer for G/A & one AIS department officer for obtaining FPD knowledge), but PC couldn't accept this request due to remaining budget constraint. PC will ask Mr. Akbar to learn whole image of FPD works then share it with AIS department.



7. SAR/RCC (TF3)

PM explained AIS Expert schedule in July and show the figures below. The meeting discusses AIS Expert's schedule for implementing SRA/RCC coordination exercise.

The "Plan of SAR working group activity" will be made by Mr. Firuz by 26 June.

Meeting agreed the AIS Expert's mission schedule in July as it is, the pass will be prepared by Mr.Firuz before the arrival date and PM will reply the acknowledgement.



Dushanbe, 12 June 2018

A. Shambiev

First Deputy Director General TAJIKAIRNAMGATION

D. Rajabov (Taskforce 1 Leader TAJIKAIRNAVIGATION

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Mr. Mukhamadaminshoev Taskforce-3 Leader TAJIKAIRNAVIGATION

Attachment-A: Five pages of technical reference for making MVA Chart/Map Attachment-B: The last two pages of MM on TF1M/17 Attachment-C: "MVA Map Development (as attachment-5 on TF1M/17 MM)

Schedule of the Coordination Meeting in July

B. Sheraliev

Project Manager

TANJIKAIRNAVIGATION



7. SAR/RCC (TF3)

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Dushanbe, 12 June 2018

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A. Shambiev First Deputy Director General TAJIKAIRNAVIGATION

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B. Sheraliev Project Manager TANJIKAIRNAVIGATION

D. Rajabov Taskforce-1 Leader TAJIKAIRNAVIGATION

Mr. Makhamadaminshoev Taskforce-3 Leader TAJIKA[RNAVIGATION

Attachment-A: Five pages of technical reference for making MVA Chart/Map Attachment-B: The last two pages of MM on TF1M/17 Attachment-C: "MVA Map Development (as attachment-5 on TF1M/17 MM)

TJ-ATS

- Expert sent the necessary documents for calculation such as updated survey forms, detailed calculation method, and Excel table to Mr. Darvon and Mr. Payrav.
- We were completed the W/S on Runway capacity calculation.

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4. Expert gave the certificate to 5 participants for ATS capacity calculation.

(6) Observation OJT-I training

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- Four OJT-I participated the session. Expert cannot do observation in the control room today because of training schedule.
- 2. Expert explained the prepared checklist of OJT-I training for each item and confirmed whether it is being implemented. Only the item "ask to the evaluation of other instructors" is not implemented. It is one to one training in TAN, therefore it is not to ask to the evaluation of other
- instructors. All other items were carried out. 3. Expert confirmed the current implementation situation of OJT-I training in 2018.Mr. Gulomjon and Mr. Hotamjon have trainees as OJT Phase. Expert decided to observe Gulomjon's OJT training on Saturday 12 May. Furthermore, expert will observe Hotamjon's OJT training on Monday 14 May.
- A. The expert sent the checklist for OJT-1 training to the participants. Mr. Shuhrat will translate it into Russian and plans to use it for future training.
- 5 Mr. Payray will send updated OJT-I Annual training plan 2018 to the expert.
- 6. < Observation 1> 12 May 2018
- When the expert reconfirmed the annual OJT-I training plan, it turned out that Mr. Gulomion (OJT-I) is carrying out training on Saturday, expert decided to observe by going to the training center.
- Expert observed the OJT-I training at control room for 1 hour from 9 o'clock to 10 o'clock.
- Mr. Abdurahmon (trainee) copies the operation manual, necessary regulations (especially control interval), SID / STAR etc., fills in necessary notes on his notebook, and learns them. These must be prepared as trainees before OJT.
- If there is no traffic for radar control, Mr. Gulomjon ask the trainee and confirm whether he has the necessary knowledge.
- At this time, he asked "What will happen to departure / arrival aircraft from RWY 09 at Dushanbe Airport if the Shooting airspace used by the military?". In this case neither departure nor arrival can be done
- Mr. Abdurahmon has been 12 years since obtaining the APP qualifications, and he is familiar with the work of the adjacent Radar position. However, the required training time is the same. He will complete training in May.
- Observing the OJT-I training at control room, expert confirmed that the training based on ICAO standards is being implemented.
- 8. <observation 2 > 14 May 2018
- Expert observed Mr. Hotamjon's OJT-I training at the control room from 8: 00 to 9: 00.
- Expert confirmed the materials prepared by the trainee because there is no traffic.
- The trainee himself explained to the expert about the contents. It was described in his notebook considerably in detail. For example, in addition to the height of the mountain handwritten, its safety altitude was also listed. In addition, visual approach diagram of VFR aircraft was described.
- Basically, the operation manual is described by extracting each item. It is a way to remember in this way. Almost training has been completed and he is waiting for final approval from FDDG.
- Trainee is continuing his studies in regard to what seems to be less satisfactory.
- Mr. Hotamjon was carrying out training based on training in Malaysia and expert training. Expert checked this with the prepared checklist.
- (7) Examination system development
- 1. W/S on the examination system development was held from 09:00.
- 2. Mr. Hotamjon, Mr. Gulomjon and Mr. Mansur were participated.
- 3. The expert explained the training system in Japan. the number of controllers was so large that it seemed not to be able to make an image of the training room well compared with TAN.
- 4. They seemed not believe that five newcomers were placed every four months, and 11 instructors

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in Tokyo ACC.

- 5. After explaining the Japanese examination system, expert proposed 4 recommendations such as (1) implementing the written exam (2) determining the passing line (3) placing the instructor in the training room (4) revising the necessary rules. We discussed the recommendation.
- 6.As for the written examination, it is not done with TAN, but they are carrying out the test using the PC, and the score is calculated and displayed automatically when the exam is over.
- 7. Passing lines are set according to qualification acquisition status. Finally, FDDG decides that.
- 8.As for the placement of instructors, there is no need additional instructor because there is not much trainee at present time. However, in order to maintain the level of ICAO standards, it is necessary to arrange one dairy-working instructor to teach theoretical training.
- 9. Expert held W/S for Mr. Shuhrat who could not participate yesterday.
- Expert explained the training system and examination system in Japan. Finally, Expert asked for opinions on the Recommendation.
- 11. He said that the examination of the theoretical training is still done by PC, and no written exam is done. In the PC exam, the passing line is 75% in the first certification, 80% in the second and 95% or more in the third. The passing line is set according to experience. Also, card type examination is carried out, questions are written in the card turned inside out, and the trainee answers this. It seems to be something like a game sense test.
- 12. He also agreed to arrange the daily-work instructor newly at the training center.
- Regarding the passing line, since it is not described in the training manual, it is necessary to specify it in some document.
- 14. Expert consider training manual in TAN to amend if necessary.

II. Next dispatch of the expert

- (1) Experts proposed tentatively that the next dispatch of expert will be as follow; /In November 2018: Mr. WATANABE (Chief Advisor)
- (2) TF-1 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 16 May 2018

Mr. Khusenov PAYRAV Head of ATC Sub-Leader of Task force 1 SUE "Tajikairnavigation

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

Attachment-1:TF-1 & 2 Activity PlanAttachment-2:The activities report (2-1~2-6)Attachment-3:Calculation detail procedureAttachment-4:Examination system development in TANAttachment-5:MVA MAP developmentAttachment-6:Checklist for OJT-I training

last two pages of TFIN/17 Attachurt - R

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Attachment-5

MVA MAP Development

Chief Advisor Hideo Watanabe



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1. Establish MVA

(1) Determination of MVA

MVA can be made higher altitude according to standards, taking into consideration the characteristics of air traffic, control airspace or the performance of radar equipment.

In particular, regarding ASR, MVA in areas where the traffic flow changes dramatically, such as mountainous areas, will be over 2000 ft above the obstacle unless special need arises.

(2) Relationship between MVA and other specified altitudes

Matching between MVA and other designated altitudes (MEA, MDA, MRA, etc.) is not necessarily required.



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(3) Relationship between MVA setting range and radar covering area

As a general rule, the range of MVA shall be the maximum coverage of the radar which is theoretically calculated. However, it does not preclude consideration of effective coverage of the radar.

(4) Flight check related to setting of MVA

Since the effective coverage of the radar is not constant and the radar target is identified and validated by the air traffic controller, it does not need a flight check for MVA setting.

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2. How to create MVA map (1) Match the center of the figure with the radar site. However, this is not the case when creating one MVA map for multiple radars. (2) The segment shall have the necessary and appropriate size for implementation of the radar control service. However, in an airspace having a single remarkable obstacle, it is possible to set a segment in which the obstacle is located so that the MVA of the segment does not become excessively high altitude due to the obstacle. (3) Make the outer edge of the segment as consistent as possible with the azimuth, distance or fix from the range mark, air safety wireless facility, aviation security wireless facility etc. (4) In determining segment MVA, consider errors of radar equipment. Лоиха оид ба баланд намудани потенсиал дар самти хизматрасонии харакати хавой www.ti-ats.com полуга чид за салена пакудан полетикан дар сам и лазметрасини карака и Проект по презшеник потенциата в сфере обслуживания воздушного движен The Project for Capacity Development in Air Traffic Services





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Federal Air Transport Agency



Minutes of TF1M/20 for

"The Project for Capacity Development in Air Traffic Services" in Tajikistan Dushanbe, 26 June 2018

- 1. The TF1M/20 for "The Project for Capacity Development in Air Traffic Services" (hereinafter "the Project") was held at 10:00-12:00 on 26 June 2018 in the Deputy Director General Room.
- 2. Project Manager organized this joint meeting, totally 5 participants of Mr. Shambiev (DDG), Mr. Rajabov (TF1 Leader), Mr. Khusenov (TF1 Sub-leader) and PC attended.
- 3. The purpose of this meeting was clarifying outcome of WS on "Examination System Development" in the last May by evaluating ATC-1 Expert's e-mail on 25 June, and other on-going TF1 activities.

4. Agenda:

1) Recommendations (1), (2) and (4) on "WS on Examination System Development" in activity 1-5

PM explained the meaning and background of the e-mail below in Russian, and PC explained a TAN's trainings/examinations structure as attachment-A, then meeting discussed original four recommendations and description in the ATC-1 Expert's e-mail below one by one.

Dear Mr. Shambiev,

Please consider the following items,

3. If TF 1 agrees, it is necessary to decide who is going to do and what to do.

Regarsds, Hideo Watanabe

Item-#1.

TF1 Management realized that the discussion in W/S had mistaken the evaluation method in OJT which have to be improved by activity 1-5 (A in Attachment-A) for the existing examination in rating obtaining (B). TF1 agreed to stop considerations for revising CAA's regulations.

Item-#2 to #4

TAN management difficult to accept recommendation to change the oral evaluation on OJT theoretical part into written (Paper or PC based) examinations, because of 1) TAN has satisfied existing oral evaluation with checklist for the theoretical part, 2) This training is one of face to face OJT, not class room type lecture, 3) TAN couldn't find any ICAO recommendations on necessity of written examination, and 4) OJT Assessment in 19-1 on MAvA #219's textbook has descriptions as "Oral assessment is goof for local knowledge and procedures".

The meeting concluded that the reasons of ATC-1 Expert asserted as #4 are not enough rational rather than above 4 bases.

However, if OJT instructors prefer to use a written test (Paper or PC) rather than the oral evaluation in the future, TAN management doesn't have reason to retard their improvement in their responsibility. The meeting decided that TF1 Leader and Sub-leader will add following sentence into "OJT-I handbook" (Project activity developed it in July 2017) after assessment on the handbook. TF1 decided that "Training Diary" in TAN or higher documents will not be changed.

OJT instructors may choose appropriate evaluation method for theoretical part from listed below.

- 1) Oral evaluation as it is now.
- 2) Written Exam(Paper), make paper test by OJT-I and use of existing criteria from rating obtaining test.
- 3) Written Exam(PC), use same test program and criteria from rating obtaining test.

In case of OJT instructor will chose 3), TF1 will add following criteria in OJT-I handbook.

75% for class 3, 85% for class 2 and 92% for class 1.

TF1 will set the exact deadline for adding those sentences in OJT-I handbook by 2nd July, after analyzing the contents, usability and positioning on this handbook.

^{1.} From the scope of 1-5 sub-activity, it is not appropriate to let the OJT instructors lead the work of making the addition to the CAA regulation concerning Criteria of this Rating Acquisition Exam appropriate. There is no need to proceed with regulation revision.

^{2.} TAN will revise the present condition which is marking 4 or 5 by oral examination about the Theoretical part of OJT, and write out the the verbal Exam as description formula as it is. There is a need to describe the percentage of pass and fail criteria according to the class in the Training Diary (it can be improved with TAN).

^{4.} The reason for requiring this improvement is because | propose it as a concrete and feasible proposal according to the current situation of TAN.



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2) Recommendations (3) on "WS on Examination System Development" in activity 1-5

ATC-1 Expert had recommended "placing the instructor (daily-working instructor to teach theoretical part) in the training room at W/S in the last May. In accordance of the report, 3 participants refused this because of there are not so many trainees at present time, but W/S in the next day, Mr. Shuhrat agreed this proposal. Though the opinion was split in W/S, TF1M/17 didn't make TF1 and Management consensus on this issue.

In this regard, PC asked ATC-1 Expert as listed below by the e-mail in Japanese.

- 1st: A ground and reason for this recommendation (3), in 19 June.
- 2nd: The job description, certification, candidate, instructor's training plan, in 24 June

For the 1st inquiry, ATC-1 Expert explained that there is no ICAO SAPRs or recommendation on necessity of dedicated instructor, he had recommended this with referring a case of Japanese training center. The reason of this recommendation is for avoiding dispersion of training quality and preventing lack of concentration by self-reading training style, he explained. ATC-1 Expert didn't reply for the 2nd inquiry by 26 June.

The meeting concluded that TF1 will refuse this recommendation, because the theoretical training is one part of face to face practical OJT. The positioning and purpose of this part in OJT quite differ from theoretical training in institute, academy or dedicated training center.

For the theoretical part of OJT, it is better to keep self-reading the operation manuals and face to face discussion style by the OJT instructors (part time of senior ATC) in the field rather than class-room lecture style by daily-working instructor in the training room.

To keep the space of further improvement of OJT instructor's responsibility, if ATC-1 Expert can explain the job descriptions of new dedicated instructor what he or she will be expected, TF1 may add these roles to existing OJT instructors. In this regard, PC will ask ATC-1 Expert the job description of daily-working instructor again. (The Job description was available on 28 June as Attachment-C)

3) Progress of other 1-4 tasks

- a) Mr. Payrav promised to send the notification letter on item #4 to Dushanbe Airport (DIA) by 15 June, but not completed yet. Mr. Davron promised to make draft it today and forward to DDG as attachment-B.
- b) ATC-1 Expert's reply (for ATC Capacity Assessment, in 19 June) is under evaluating by WG. Mr. Payrav will send raw data on AD (RWY occupation only) part to Expert today, after verification by Expert, the AD capacity calculation will be done by WG.
- c) Mr. Payrav didn't send Expert e-mail for clarifying un-clear instructions for MVA Map/Chart creation by 14 June as his commitment in TF1M19. He will ask Mr. Firdus the progress of this activity and send e-mail to Experts immediately.

lee

A. Shambiev First Deputy Director General TAJIKAIRNAVIGATION

Dushanbe, 26 June 2018

B. Sheraliev **Project Manager** TANJIKAIRNAVIGATION

D. Rajabov Taskforce-1 Leader TAJIKAIRNAVIGATION

Attachment-A: Summary of trainings/examination structures Attachment-B: Draft letter for notifying follow-me-car issue to DIA. Attachment-C: Proposed Job description on daily-work instructor (as of 28 June)

TAN's ATC Rating/ License Training Structure

						Trainir	ngs			Examinations		a and a second
					OJT to Face	e)	Technica	I Training	Internal Exam-Com	Higher Exam-Com	Others	1-5 Coverage
				Theatrical (read O/M)	Sim	Pra	Theoretical (classroom)	Simulator (ACC/AD)	Paper or PC base	Paper	Web Base	1-7 Coverage
	Purpose	Target	Freq.	OJT-Inst.	Sim-I	OJT-I	Shift SV	Sim-Inst	by TAN	by CAA	Russia	Remarks
	Obtaining Rating (License)	New Add	Annual Plan	Yes +Oral Exam		Yes +Eva	Evaluat Subject	ion Criteria: ctive	Paper Exam PC Exam	Paper Exam		Criteria in Paper Test by CAA
	Seasonal Training	All	2x2days /year	CAA: RT22/	ATM-P-		Yes	Yes	Paper Exam via SV	Few quest	ions	Same as Internal Exam
	Monthly Training	All	12 times /year	TAN: Diary Material: act Exam: Oral	ual O/M	Fina Eva	Yes	Yes		Criteria: S	ubjective	Criteria in WB Exam:
	Prolonging License	All	Once /year	Criteria: Sub					Paper Exam PC Exam	Paper Exam		by Russian Institute unknown
	WBT by Russia	All	Once /2years		2		WBT Theoretical				Web base Examination	
	Upgrade Class	All	Annual Plan						Paper Exam PC Exam	Paper Exam		
		I	Fidin						PUExam			Criteria in Paper Exam: (3 Questions /subject)
T	M Personal						A (criteria 75% ia ОрВД (No d					3/3: 1st class / mark 5 2/3: 2-3 class / mark 3-4 1/3: fail 0/3: fail
b	asonal Train	ing: 9 A	кт провер	оки специали	стов УЕ		ТОЯТЕЛЬНО 2015-2016	Й РАБОТЕ н	ав		()	Criteria in PC Base Exa (50-80 Question /subjec
	olonging Lice grade ATC (цст. продлени	е УВД							95%: 1 st class / mark 5 80%: 2 nd class / mark 4 75%: 3 rd class mark 3

RT22	Экзаменационная оценка должна основываться на количестве	Examination assessment should be based on the number correct
	правильных ответов, причем баллы за неправильные ответы или вопросы,	answers, and points for incorrect answers or questions, those who remain
	оставшиеся без ответа, не начисляются. Оценка за каждый экзамен должна	unanswered do not accrue. The assessment for each exam should
	определяться в виде "приведенного" значения к минимальному проходному	Determine in the form of a "reduced" value to the minimum passing score.
	баллу, установленному государством, например, 75 %.	established by the state, for example, 75%.

Attendant -A

ВАЗОРАТИ НАКЛИЁТИ ЧУМХУРИИ ТОЧИКИСТОН 	МИНИСТЕРСТВО ТРАНСПОРТА РЕСПУБЛИКИ ТАДЖИКИСТАН
КОРХОНАИ ВОХИДИ ДАВЛАТИИ "ТОЧИКАЭРОНАВИГАТСИЯ"	ГОСУДАРСТВЕННОЕ УНИТАРНОЕ ПРЕДПРИЯТИЕ "ТАДЖИКАЭРОНАВИГАЦИЯ"

Nº

Ба директори генералии ЧСК «Фурудгоҳи байналмиллалии Душанбе» Абдуллозода И.Ф.

Муҳтарам Исматулло Файзуло!

КВД «Точикаэронавигатсия» бо арзи эхтиром ва хамкорихои пурсамари муштарак ба маълумотатон мерасонад, ки дар асоси лоиха оид ба баланд намудани потенсиал дар самти хизматрасонии харакати хавой аз чониби коршиноси Цопонй назорат аз манораи танзимгарй гузаронида шуда мулохизахо зерин пешниход гардиданд:

- 1. Мошини роҳбалад (сопровождение) хело наздик ба ҳавопаймо роҳбалади менамуд, ки ин ба беҳатарии парвозҳо метавонад таъсири манфӣ расонад;
- 2. Мошини рохбалад (сопровождение) дар масофахои кутох хавопайморо рохбалади менамояд, ки ин фаъолияти танзимгарро дучанд мегардонад;
- 3. Мошини рохбалад (сопровождение) сари вакт ба чойи лозими хозир нашуда, дар вакти харакати хавопаймо аз сари рохаш баромада рохбалади менамояд.

Генеральный директор

Л.Б. Ашуров

Ичр: Д.Ш. Рачабов Тел: 48-701-17-31

Daily-working instructor

Job Description:

1) Develops and conducts programs to train Air Traffic Controller, following operation manuals, using training materials: Confers with management and staff to determine training objectives.

2) Writes training program, including outline, text, handouts, and tests, and designs simulator training, applying knowledge required as a controller.

3) Schedules classes based on classroom and equipment availability.

4) Lectures class on organizational structure, airspace, general technological process, interaction with adjacent ACC, radio communication and equipment, following outline, handouts, and texts, and using visual aids, such as graphs, charts, and slides.

5) Observes trainees in control room and answers trainees' questions.

6) Administers written and practical exams and writes performance reports to evaluate trainees' performance.

7) Participates in meetings, seminars, and training sessions to obtain information useful to training facility and integrates information into training program.

Qualification requirement:

1) 5 years' experience as an air traffic controller

2) All air traffic controller qualifications (Aerodrome, APP, and ACC)

3) Complete the ICAO-based instructor training and have a certificate

4) Having experience of practical training as an instructor

Made by Hideo Watanabe (Chief Advisor)

Attacher - C



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Minutes of TF1M/21 for

"The Project for Capacity Development in Air Traffic Services" in Tajikistan Dushanbe, 14 September 2018

- 1. The TF1M/21 for "The Project for Capacity Development in Air Traffic Services" (hereinafter "the Project") was held at 10:00-12:00 on 14 September 2018 in TF1 and 3 Leaders office.
- 2. Project Manager organized this meeting, Mr. Rajabov (TF1 Leader), Mr. Khusenov (TF1 Sub-leader) and PC attended first for TF-1 1-4 and 5 parts, then from 11:30 to 12:00, Mr. Firuz (TF3 Leader), Mr. Khumorov (Sub-leader) and Mr. Habib (MC) joined for TF-3 SAR/RCC part. Before starting this meeting, FPD Expert had a TF3M/19 with FPD team from 9:00 to 10:00 in FPO. After completing this meeting, PM informed the result of discussion to DDG.
- 3. The purpose of these meetings were confirming result on remaining activities of 1-4 and 1-5 in accordance with commitments and deadlines which was agreed at TF1M/20 in 26 June 2018, also made consensus for MVA chat and SAR/RCC as joint tasks with TF1 and 3.

4. Agenda:

1) Activity 1-4, Follow-me Car issue:

Responding to the inquiry of ICAO standard about the Follow-me Car operation by PM in 2nd July, ATC-1 Expert replied JCAB's "Operation Guideline" in 4th July. The PM and TF1 couldn't found ICAO regulation, recommendation or the best practice about minimum leading speed, distance and another technical requirement. TF1 recognized that there was no ICAO standard since ANSPs or airports have discretion on this operation under their responsibility in case by case.

TF1 managements had instructed supervisors to verify that DIA's Follow-me Car operations have really interfered with ATCO's daily work efficiency or not. In accordance with the result of this discussion, TF1 regrettably decided to reject this recommendation, then TAN stopped to send an official notification letter to the DIA. Mr. Payrav informed this to ATC-1 Expert in 11 July for closing this issue.

2) Activity 1-4, MVA Chart:

In TF1M19 in 12 June 2018, TF1&3 joint W/G had evaluated the instruction of "MVA MAP Development" (ATC-1 Expert gave it to Mr. Payrav in May). After this assessment and discussion, W/G concluded that the technical information is not enough for creating MVA chart by W/G themselves. Mr. Akbar on behalf of W/G inquired several technical questions to ATC-1 Expert by e-mail, then Expert replied to him in 17 July. The W/G carefully analyzed Expert's reply with turning to Doc8697, but they couldn't obtain the confident in their ability to develop the safe MVA charts in mountainous area of Dushanbe.

For creating suitable MVA charts by TF1&3 as an outcome of 1-4 activity, the W/G decided to wait the FPD Expert's arrival until 29 August. They had a workshop from 30 August to 3 September for recovering this activity. As of today, 14 September, TF3 FPD team had created draft MVA chart (hand-writing) with using PANS-OPS Doc8697 rule. The meeting discussed how to approve it by TAN and CAA and install it to the Master console, because of TAN management recognized that existing TAN's rule are different from PANS-OPS. Considering overload on TF3 designer team due to developing STAR FPD during September and new Topsky Project, the meeting made conclusion for implementing further activities as below.

TF3 FPD team will modify the draft of MVA chart from PANS-OPS to existing Tajik rule by 12 October. TF1 ATCOs will verify and test it by Radar simulator by 12 November.

TF1 management will get TAN's internal approval (If need, also CAA's approval) by 12 December. After obtaining approvals, TF1 will ask IT (or CNS) department to install it into Master screen by 21 Dec. For adapting new Topsky Project, TF1/3 will keep the 1st draft of PANS-OPS based chart as it is till 2019.

3) Progress of implementation on Light Gun TF1 committed following deadlines at TF1M/19 in 12 June 2018.

c) The meeting confirmed Light Gun task (item 3) as below.

-Conduct analysis for clarifying the document change is required or not by 19 June. -If Operation Manual Change will be required, revise it by 31 Aug.

-Procure 4 sets of Light Gun by Rajabov by 31 Aug.

-Complete radio frailer scenario making for AD Simulator by 28 Sep by TF1.

- DDG proposed to have the seminar in Sep.



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The meeting realized that TF1 didn't meet the above deadlines which they had committed in 12 June, but they had started to develop the "Operation Manuals for New ATC tower" by 1st November which will include a procedure of using Light Gun. The TF1 reported that DDG already has founded several suppliers and he will get ready to start tendering process and budget allocation by 1st November. However, the meeting discussed that before updating the operation manuals and 4 sets of Light Gun will be available, it is difficult to consider the training by AD simulator and other activities.

All things considered as above, the meeting made conclusion that implementing Light Gun by the deadline or within remaining Project term is difficult to reach the successful outcome. However, TF1 will consider the recovering plan after clarifying the situations in 1st November with harmonizing New ATC tower Project accordingly.

The PC on behalf of JICA expressed his regret for delay of this procurement process, because introducing the Light Gun was the one of symbolic outcome in activity 1-4 which was proposed by TF1 CP side. He also mentioned that it had been brought up by MAvA trainees almost two years ago in the end of 2016.

4) ATS Capacity Assessment

After ATC-1 Expert conducted a catch-up workshop from 7 to 10 May, Mr. Payrav committed to send the the raw data of ATC and AD for one week with using Expert provided survey and calculation forms. After completed the re-collection data, TF1 committed following actions and deadlines at TF1M/19 in 12 June.

The meeting asked Mr. Payrav the result of 3 days additional workshop in May for introducing Japanese methodologies and modify it to TAN. He answered that five participants received the certificates (attendance), and the survey forms (ATC and AD (RWY only), excel forms and Japanese methodology explanation papers were provided by ATC-1 Expert.

DDG ordered TF1 WG (5 participants) to verify the result figures by Japanese technologies first by 29 June, then WG should analyze Japanese, Uzbekistan, Russian and ICAO Docs and pick up appropriate part of technics by 31 July

After verified the result of the analysis above, TF1 WG should make a draft of "ATC/AD Capacity Assessment Procedure Document in Tajikistan" by 28 Sep, then start process of approval by CAA. Then, TF1 WG will complete the survey by using this document for three airports by 1st Nov 2018.

For withstanding inquiry from CAA and ICAO, for example how to obtain this figure or what is a basis for peak volume model, the meeting agrees to make Tajikistan's original procedure document same as Uzbekistan which has clear descriptions about formulae and models in Tajik airspace.

The meeting agreed DDG's decision above.

The meeting realized that TF1 W/G did nothing for above mentioned activities.

TF1 management understood that re-collected ACC raw data for one week in May was still imperfect for calculating "ATC workload index", also the practical (dynamic) air traffic flow modeling technic using this index and actual flight plan was not well understood by WG, even they received certificate on W/S in May. PM explained that an objective of Japanese 25 years old methodology was obtaining ATC work load index for the one of input parameter on ATFM software algorism, it was no function for obtaining the figures of static maximum capacity.

Regarding the AD capacity, WG had obtained only runway occupation time data for few flights on the hypothesis that the runway capacity will be bottle neck on AD capacity in theoretical thinking, but practical modeling theory was not introduced by the Expert. PM mentioned that parking spots ability should consider for obtaining reliable practical AD capacity, and PC indicated that single runway dual mode modeling is not easy because many academic papers are still tackling this topic. For estimating of practical AD capacity needs to use probability theory with considering the acceptable delay time, taxi way combination etc.

The meeting recognized that there was no active communication between WG and ATC-1 Expert from 23 July 2018 for proceeding this task. Considering those situations, the meeting has no choice but to consider that both sides had lost interest in this activity and no capability to analyze Uzbekistan or Russian methodologies for developing "Tajikistan's original procedure documents".

Taking all things above into consideration, TF1 management regrettably decided to abandon the outcomes of this assessments for avoiding wasteful use of ATCO's resources. The monitoring (1H/2018) and final evaluation mission (October 2018) will analyze the root course of this unexpected result. PC stated his personal opinion that the Project shouldn't have undertook the request since we realized that ATS (ACC&AD) capacity assessment is difficult, it had exceeded the TF1's competence.



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5) 1-5 Observation on OJT

The "OJT check list" by ATC-1 Expert at the observations in May was translated into Russian by Mr. Shuhrat by 19 July 2018 as Attachment-A. However, the OJT instructors didn't use it for their trainings because of only two trainees had started series of OJT at right now. The monitoring continuously keeps a close watch on the trained OJT instructor's performance as an outcome of 1-5 activity.

6) 1-5 Examination System Development (newly proposed activity by ATC-1 Expert in March) In 26 June 2018, TF1M/20 agreed following treatments for closing this issue.

OJT instructors may choose appropriate evaluation method for theoretical part from listed below.

1) Oral evaluation as it is now. 2) Written Exam(Paper), make paper test by OJT-I and use of existing criteria from rating obtaining test.

3) Written Exam(PC), use same test program and criteria from rating obtaining test.

In case of OJT instructor will chose 3), TF1 will add following criteria in OJT-I handbook.

75% for class 3, 85% for class 2 and 92% for class 1

TF1 will set the exact deadline for adding those sentences in OJT-I handbook by 2nd July, after analyzing the contents, usability and positioning on this handbook.

In 23 July 2018, responding to the inquiry form TF1, ATC-1 Expert instructed below to TF1.

Dear Payrav,

I would like to propose to add the following items to the OJT-I Handbook.

OJT-I HANDBOOK in TAN

Chapter 4 Examination The instructor (examiner?) conduct the theoretical test and practical test for Obtaining Rating at the end of each training.

The criteria are as follows ;

Criteria in Paper examination

(1) Theoretical test: minimum passing score is 75% or more.

(2) Practical test: minimum passing score is 75% or more.

With regards, Hideo Watanabe

(Original draft of "OJT-I handbook doesn't have "Chapter 4 Examination")

The meeting recognized that TF1 and OJT instructors didn't finalize and approve the "OJT-I handbook" yet, though TF1 committed to do that by January 2018 at TF1M/11 (1st Dec 2017).

9. We made the draft of OJT-I Hand book in TAN and the draft of Annual Obtaining Rating Training Plan for 2018 on 24 November 2017.

10. TF-1 will improve an arrangement of training materials in TAN in January 2018.

11. The OJT-I Hand book in TAN will be approved in January 2018.

For ensuring outcomes of this activity, the meeting decided that TF1 should add the sentence above into the English version of "OJT-I handbook" within September. After the monitoring will confirm the modified "OJT-I handbook" (draft in English) by 19 October, then Project is going to close this activity on 1-5.

Regarding the proposal of newly assign the "Daily-work instructor" for theoretical trainings part on OTJ, responding to the PM's inquiry in 26 June, ATC-1 expert sent the "Job description" in 28 June as attachment-B.

TAN management and TF1 will refer to it for improving ability of existing OJT instructors in future. The meeting agreed to close this recommendation.



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The TF1 meeting invited TF3 managements Mr. Firuz, Mr. Khumorov and Mr. Habib (Main Center) from 11:30 for discussing SAR/RCC as TF3 issue.

7) Remaining activity on SAR/RCC

PM informed that the investigation report of Mi-8 accident strongly recommended that TAN should change the existing ACC and MC (included RCC function) operation manuals in accordance with Annex-11 &12.

TF1 and 3 leaders agreed to add two essential sentences (24hrs operation and English ability) of RCC function into the MC O/M first, then revise the ACC O/M accordingly. For ensuring consistency among MC, ACC O/Ms, RCC role and Annex-12, TAN management decided that dedicated RCC O/M is not necessary in case of MC will have the RCC function, because improved MC O/M will be able to operate aviation RCC role properly by MC controllers, cooperating with ACC and other stakes holders.

The meeting confirmed the following tasks.

Mr. Khumorov prepares an invitation letter for 4-5 Oct to MTS, Military, Airlines, DIA and CAA: 20 Sep. Mr. Habib and WG will revise The MC and ACC O/Ms (draft): 28 Sep.

WG will finalize two scenarios (International passenger fleet & Domestic helicopter are missing): 28 Sep. TF3 will have a preparation meeting for the exercise: 2 Oct.

"Re-try RCC Exercise" using revised MC/ACC O/Ms: 4 Oct.

"SAR Completion Seminar": 5 Oct.

TF3 will get an internal approval for ACC O/M and CAA approval for MC O/M: 31 Oct.

D. Rajabov taskforce-1 Leader TAJIKAIRNAVIGATION

trp to Pu acings

P. Khusenov Taskforce-1 Sub-Leader TAJIKAIRNAVIGATION

F. Muhamadaminshoev Taskforce-3 Leader TAJIKAIRNAVIGATION

B Khumorov Taskforce-3 Sub-Leader TAJIKAIRNAVIGATION

Attachment-A: Russian translated "OJT checklist" Attachment-B: Sample Job description of "Daily work instructor" Dushanbe, 14 September 2018

B. Sheraliev Project Manager TANJIKAIRNAVIGATION