

CONTROLLER / PILOT HANDSHAKE PROGRAM

In the Middle East and North Africa



Executive Summary (v2)

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Beirut - Lebanon

Abstract

The “**Controller / Pilot Handshake Program**” tends to enhance the partnership between air traffic controllers and pilots, and reinforce their collaboration with each other across the radio frequency.

Controllers and Pilots have different priorities and challenges. Even more, a priority for a pilot could be a challenge for a controller, and vice versa. But when each one is aware of the other’s challenges, this will result in a better collaboration and a less stressful work environment for both. Increasing this awareness can be realized by incorporating familiarization sessions in their recurrent training whereby a pilot regularly visits an ATC center as an observer in real or simulated operation, and a controller joins a flight crew in a real or simulated flight.

The purpose of this survey is to measure the impact of regularly bringing controllers and pilots “physically” closer to each other, and familiarizing them with their respective duties and challenges on achieving enhanced and fruitful levels of collaboration and cooperation.

This document summarizes the results of 2 surveys; one filled by Air Traffic Controllers, and the other by Pilots. The combined results determine the level of response and acceptance of Air Traffic Controllers and Pilots for the “Controller / Pilot Handshake Program”.

Program Initiator

The “**Controller / Pilot Handshake Program**” is an initiative started by Walid Naja, an Aviation Research and Development professional, founder of ADAPT aeroNAV website (www.adaptaeronav.com), and a graduate of Embry-Riddle Aeronautical University (MS, 2007). His motto is “Towards a seamless CNS/ATM sky in the Middle East and Africa”. As for the surveys, they were designed, conducted, and analyzed by Walid Naja who wrote this report as well.

For future reference to this survey, the contact person is:

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Surveys Background

The surveys were conducted during July, August, and September 2011. They were addressed to most Air Traffic Controllers and Pilots in the Middle East. Several heads of Air Traffic Service centers in various countries of the Middle East, as well as several heads of flight operations in various major airlines of the region were contacted via email and were kindly asked to distribute the relevant survey among Air Traffic Controllers or Pilots in their jurisdictions. The number of replies came satisfactory in quantity, even though a wider geographic diversification would have been preferred. For the ATC Survey, the participants were 3 from Bahrain, 1 from Egypt, 15 from Jordan, 1 from Kuwait, 1 from Lebanon, 7 from Qatar, 64 from Saudi Arabia, 28 from UAE, and 7 from outside the Middle East. As for the Pilots Survey, the participants were 3 from Royal Jordanian, 178 from Qatar Airways, and 22 from Etihad Airways.

Both surveys were hosted online by LimeService at the following links:

Controller's Survey: <http://adaptaeronav.limequery.com/35239/lang-en>

Pilot's Survey: <http://adaptaeronav.limequery.com/53533/lang-en>

The "**Controller / Pilot Handshake Program**" initiator proposed this initiative to be hosted by the Civil Air Navigation Services Organization – Middle East (CANSO-ME). He will be introducing it, describing the surveys' findings, and proposing a framework for a work group and an action plan in the CANSO Middle East ANSP, Airspace User & Stakeholder Engagement Conference, 21 to 22 November 2011, in Amman.

Results of the survey directed to Air Traffic Controllers

GENERAL QUESTIONS

Q1 - Choose the country where you perform your duties.

Country	Percentage
Bahrain	2.34%
Egypt	0.78%
Iran	
Iraq	
Jordan	11.72%
Kuwait	0.78%
Lebanon	0.78%
Oman	
Qatar	5.47%
Saudi Arabia	50.00%
Syria	
UAE	21.88%
Yemen	
Other	6.25%

Q2 - What is your current duty station?

Answer	Percentage
Ground Control	18.75%
Local Control (Tower)	22.66%
Terminal Control (Arrival / Departure)	39.84%
En-Route / Area Control	46.88%
Flight Data Delivery	10.16%
Other	17.19%

Q3 - Are you a trainee in ATC?

Answer	Percentage
Yes	9.38%
No	90.62%

Q4 - How many years of experience do you have in Air Traffic Services?

	Years of Exp.
Minimum	2
Average	16
Maximum	42

TRAINING QUESTIONS

Q5 - Do you have any current or previous flight experience as a certified pilot?

Answer	Percentage
No	79.69%
Student Pilot	10.16%
Private Pilot (PPL)	5.47%
Commercial Pilot (CPL)	4.69%
Airline Transport Pilot (ATPL)	0.78%
Flight Instructor	0.78%
Military Pilot	0.78%
Other	3.12%

Q6 - If your answer to the previous question was different than "No", what is the cumulative number of your flight hours?

	Flight Hours
Minimum	8
Average	530
Maximum	10,000

Q7 – Does your recurrent ATC training include familiarization with the Pilot duties and workload at the different stages of a flight?

Answer	Percentage
No	86.72%
Yes, once per year	6.25%
Yes, every two years	
Yes, at irregular trends	7.03%
Other	

Q8 - Does your recurrent ATC training include joining the flight crew on a real flight as an observer?

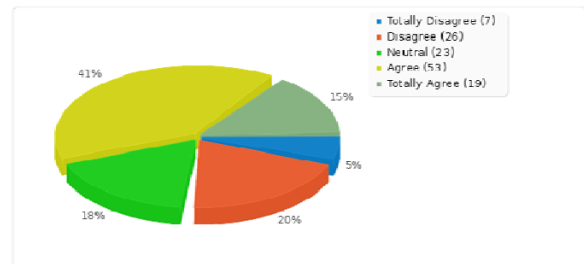
Answer	Percentage
No	79.69%
Yes, once per year	5.47%
Yes, every two years	0.78%
Yes, at irregular trends	9.38%
Other	4.69%

Q9 – Does your recurrent ATC training include joining the flight crew in a flight simulator as an observer?

Answer	Percentage
No	91.41%
Yes, once per year	2.34%
Yes, every two years	
Yes, at irregular trends	5.47%
Other	0.78%

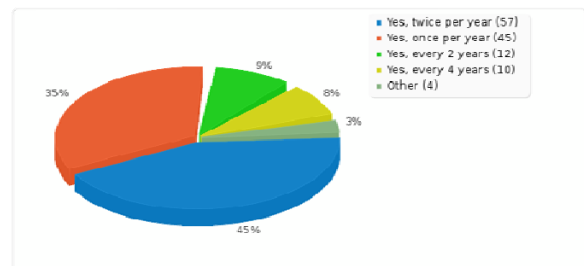
Q10 - In general, controllers are aware of the pilots' workload and challenges during a flight.

Answer	Percentage
Totally Disagree	5.47%
Disagree	20.31%
Neutral	17.97%
Agree	41.41%
Totally Agree	14.84%



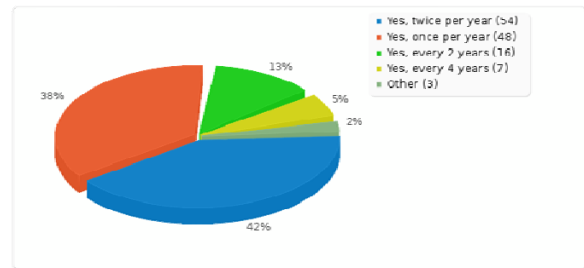
Q11 - Do you think a controller should join a flight crew as an observer during a real or simulated flight to have a better perception of the pilot's workload and challenges?

Answer	Percentage
Never	
Yes, twice per year	44.53%
Yes, once per year	35.16%
Yes, every 2 years	9.38%
Yes, every 4 years	7.81%
Other	3.12%



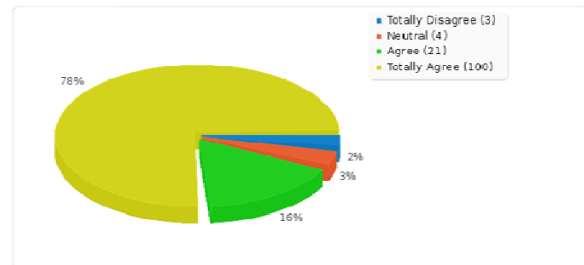
Q12 - Do you think a pilot should join air traffic controllers as an observer in real-time or in simulated ATC activity to have a better perception of the controllers' workload and challenges?

Answer	Percentage
Never	
Yes, twice per year	42.19%
Yes, once per year	37.50%
Yes, every 2 years	12.5%
Yes, every 4 years	5.47%
Other	2.34%



Q13 - If controllers and pilots become more familiar with each other's workload and challenges, the outcome will be a better cooperation and a less stressful work environment for both of them.

Answer	Percentage
Totally Disagree	2.34%
Disagree	
Neutral	3.12%
Agree	16.41%
Totally Agree	78.12%



Q15 - Participants' Age (Optional question).

	Age
Minimum	22
Average	39
Maximum	58

Results of the survey directed to Pilots

GENERAL QUESTIONS

Q1 - Choose the country of your duty station.

Country	Percentage
Bahrain	
Egypt	
Iran	
Iraq	
Jordan	1.48%
Kuwait	
Lebanon	
Oman	
Qatar	87.68%
Saudi Arabia	
Syria	
UAE	10.84%
Yemen	
Other	

Q2 - What is your current flight function (license)?

Answer	Percentage
Student Pilot	
Private Pilot (PPL)	
Commercial Pilot (CPL)	5.42%
Airline Transport Pilot (ATPL)	91.13%
Flight Instructor	6.40%
Military Pilot	
Other	

Q3 - What is the cumulative number of your flight hours?

	Flight Hours
Minimum	22
Average	9770
Maximum	21569

TRAINING QUESTIONS

Q4 - Do you have any current or previous ATC Training or license?

Answer	Percentage
No	93.60%
Some ATC Training	3.45%
ATC License and active duty as a controller	1.97%
Other	0.99%

Q5 - If your answer to the previous question was different than "No", for how many years did you perform ATC duties?

	Years
Average	3
Maximum	12

Q6 - Does your recurrent flight training include familiarization with the Air Traffic Controller's duties and workload at the different stages of a flight?

Answer	Percentage
No	94.09%
Yes, once per year	
Yes, every two years	0.49%
Yes, at irregular trends	2.96%
Other	2.46%

Q7 - Does your recurrent flight training include joining Air Traffic Controllers in real-time operation as an observer?

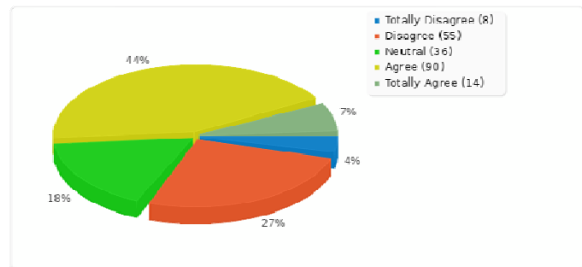
Answer	Percentage
No	97.54%
Yes, once per year	
Yes, every two years	
Yes, at irregular trends	0.99%
Other	1.48%

Q8 - Does your recurrent flight training include joining air traffic controllers in ATC simulator as an observer?

Answer	Percentage
No	98.52%
Yes, once per year	
Yes, every two years	0.49%
Yes, at irregular trends	
Other	0.99%

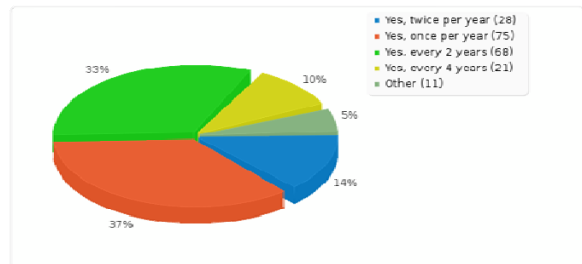
Q9 - In general, pilots are aware of the controllers' workload and challenges during a flight.

Answer	Percentage
Totally Disagree	3.94%
Disagree	27.09%
Neutral	17.73%
Agree	44.33%
Totally Agree	6.90%



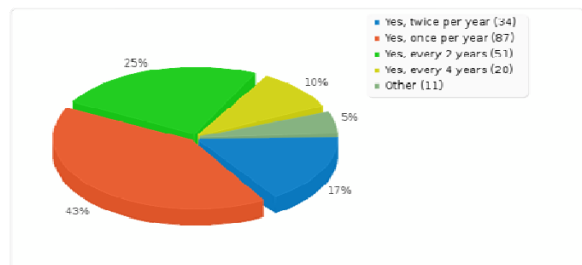
Q10 - Do you think a pilot should join Air Traffic Controllers as an observer in real-time or in simulated ATC activity to have a better perception of the controllers' workload and challenges?

Answer	Percentage
Never	
Yes, twice per year	13.79%
Yes, once per year	36.95%
Yes, every 2 years	33.50%
Yes, every 4 years	10.34%
Other	5.42%



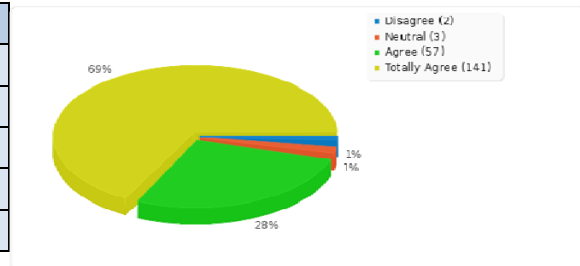
Q11 - Do you think a controller should join a flight crew as an observer during a real or simulated flight to have a better perception of the pilot's workload and challenges?

Answer	Percentage
Never	
Yes, twice per year	16.75%
Yes, once per year	42.86%
Yes, every 2 years	25.12%
Yes, every 4 years	9.85%
Other	5.42%



Q12 - If controllers and pilots become more familiar with each other’s workload and challenges, the outcome will be a better cooperation and a less stressful work environment for both of them.

Answer	Percentage
Totally Disagree	
Disagree	0.99%
Neutral	1.48%
Agree	28.08%
Totally Agree	69.46%



Q14 – Participants’ Age (Optional question).

	Age
Minimum	21
Average	44
Maximum	64

Tendency of the Replies

It is very evident that most of the participants, Air Traffic Controllers and Pilots, are encouraging the **Controller / Pilot Handshake Program**, and they “Totally Agree” with its mission. This can be seen by combining the replies to the following question and determining their weighted average:

If controllers and pilots become more familiar with each other’s workload and challenges, the outcome will be a better cooperation and a less stressful work environment for both of them.

Answer	ATCO	Pilot	Weighted Average
Totally Disagree	2.34%		0.29%
Disagree		0.99%	0.87%
Neutral	3.12%	1.48%	1.69%
Agree	16.41%	28.08%	26.62%
Totally Agree	78.12%	69.46%	70.54%

As to the rising question about the frequency of visits conducted by Air Traffic Controllers to the cockpit, and by Pilots to the ATC center, the replies to the following 2 questions suggest that “once per year” can be set as a benchmark until the matter is well discussed by concerned parties. The 2 questions are below:

Do you think a controller should join a flight crew as an observer during a real or simulated flight to have a better perception of the pilot's workload and challenges?

Answer	ATCO	Pilot	Weighted Average
Never			0.00%
Yes, twice per year	44.53%	16.75%	20.22%
Yes, once per year	35.16%	42.86%	41.90%
Yes, every 2 years	9.38%	25.12%	23.15%
Yes, every 4 years	7.81%	9.85%	9.60%
Other	3.12%	5.42%	5.13%

Do you think a pilot should join Air Traffic Controllers as an observer in real-time or in simulated ATC activity to have a better perception of the controllers' workload and challenges?

Answer	ATCO	Pilot	Weighted Average
Never			0.00%
Yes, twice per year	42.19%	13.79%	17.34%
Yes, once per year	37.50%	36.95%	37.02%
Yes, every 2 years	12.50%	33.50%	30.88%
Yes, every 4 years	5.47%	10.34%	9.73%
Other	2.34%	5.42%	5.04%

Appendix A

Comments by Participants

These are some comments added by the surveys participants. They all suggest the true need for The "**Controller / Pilot Handshake Program**" initiative in the Middle East.

- *Excellent survey, and great news that someone is finally taking a proactive approach to making the skies safer and more efficient!! Thank you!*
- *Would be great to observe ATC in action and have ATC on board for both of us to get a better understanding of our jobs.*
- *This show great initiative, well done.*
- *With my previous employer, a UK charter airline, we had regular contact with ATC operations at our base airports. This was extremely valuable as we could learn where each other's peak workloads occurred and try to avoid non-urgent communications at that time! We established what essential information we each needed on initial contact, or area handover and we could explain our needs as pilots, such as track miles/no. in sequence on arrival. As a pilot, I was more informed about ATC operations having visited the Radar/Approach, Tower and Ground controllers work stations.*
- *Congratulations, as it is an important tool for all of us to know each other environment, and a safe and realistic way to know and act as we may have a better perception from 'the other side'.*
- *The lack of understanding between Pilots/Controllers in the Gulf region is astounding! Furthermore, lack of airspace procedures do not make either job any easier. At this time, there are several quick fix solutions to many issues in the region, but it appears that none is interested!*
- *We have to exchange our challenges to improve safety and create a better environment. Please include me on any communication tool with ATC controller.*
- *ATC/Pilot interaction will have ONLY positive effects for modern Air Transport Safety generally.*
- *Very good initiative, I was thinking to ask to visit Doha ATC Tower, but no way to know who to ask for. Congratulations.*
- *Amongst my friends in Germany are a couple of ATC controllers. Every time I see them we all learn a lot. Exchanging our views and experiences. Maybe a social gathering like controller meets pilots in a regular monthly getting, would be a helpful instrument for a good collaboration.*
- *In my previous company, visits to the ATC area controllers was a biannual event and made a major difference in the manner in which each professional group treated each other. The additional understanding, in my opinion, was extremely useful.*
- *Thanks for taking the initiative to implement more close relationship between pilots and ATC. This can only be a positive move.*
- *I am from Brazil, and we used to have a ATC controller as a observer on our flights. It was very important and helpful to understand each other work environment...*

- *It is a very good idea, I hope we will see this in the near future.*
- *We need all parties in Aviation to have a better understanding of each others jobs... I agree with this approach. Thank you*
- *I applaud this first step in a program that allows pilots and controllers to better understand each other's roles in an airspace that is rapidly reaching saturation and faced with unique operational issues. I hope this leads to a recognized program where pilots/controllers can regularly observe and understand the challenges posed in the relative workplaces.*
- *I had the opportunity to see this program working at my former airline, and It was an excellent tool for both Controllers and Pilots.*
- *previous airline I worked for permitted ATC to occupy flightdeck jumpseats on live flights. Was a great way of observing/discussing all aspects of pilot/controller interaction from both sides.*
- *If seminars can be arranged to get the controllers and pilots together in a meeting room to discuss views.*
- *Generally speaking, ATC work has one variable, aircrafts, i.e it is effected by aircrafts only, and for pilots to observe ATC at their work may increase the awareness of pilots of ATC work but would not help improve the operation, while ATC observing pilots would create an understanding that would help improve the ops, an example is, on a busy day where the weather is good and i have lots of fuel and i get delayed in the hold , my understanding of ATC job would only make me more patience, which pilots generally are in such a scenario while on the same day if my fuel was running low my understanding of ATC work would have no impact what so ever as my priorities are different now and that what we need ATC to see in real life and understand. the other thing that would help improve the operation is, ATC equipment and ATC training. i hope this was helpful and i would be glad to see the result of the survey as i am always open to different views and ideas. Thanks*
- *People would not be interested enough to do this on their days off/in their own time. It should be a work duty like any other recurrent training and I think both parties would learn from it and be interested. However with such large numbers of people involved it could be hard to organize and may seem like you always have an observer on the plane/in the control room.*
- *Recognize first the problems then simulate them in sim. with the presence of controllers. the problems can be identified by both pilots and controller.*
- *Very interesting poll. I do wish this results in an increase of awareness amongst our colleagues the ATC controllers. Together we should transmit our needs, concerns as well as advice to each other on how to operate in a more efficient and aware manner.*
- *In my ex-airline, I once had the chance to participate in a joint training exercise between controllers and pilots (organized and conducted by Eurocontrol). That was extremely interesting and both sides learned a great deal from each other. I can really recommend such an exercise.*
- *Controllers and pilots do not have a clear understanding of the challenges each other face, and often have conflicting goals. Increased cross-training would greatly benefit all parties involved in commercial aviation.*

- *Totally agree, it is vital to see each person's side of the operation to understand the limitations and expectations that we operate under.*
- *This survey is certainly a very good initiative and undoubtedly, the understanding of duties related to both Pilots and Air Traffic Controllers will only enhance cooperation and ultimately; safety.*
- *I started flying as an airline pilot back in 1983, this is the first time I answer such a survey. I believe it is an important step in the right direction. Thank you.*
- *An ATC visit should also involve a discussion session for feed back and sharing views of pilots and ATC controllers.*