

CNS SG/25 of APANPIRG



ICAO



Agenda Item 10: Human Factors and Air Traffic Safety Electronics Personnel (ATSEPs) related training

10.1 REVIEW OUTCOMES OF SMALL WORKING GROUP STUDY ON HUMAN FACTOR ISSUES OF ATSEP

WP-18

Presented by Secretariat and IFATSEA

SUMMARY



This paper summarized the outcomes of the various Ad-hoc group meetings held from its establishment in April 2021 in response to APANPIRG Conclusion C 31/15 for finding the left-out gaps and for preparing the regional ATSEP human factor guidance material.



Introduction

1.1

Thirty First Meeting of Asia/Pacific Air Navigation Planning and Implementation Regional Work Group (APANPIRG/31) in December 2020 adopted the following Conclusion recommended by CNS SG/24:

Conclusion APANPIRG/31/15 -Addressing Human Factor Issues of ATSEP

That,

a) the States are encouraged to make reference and implement the recommendations made out of the IFATSEA study report Factors adding stress and fatigue to ATSEP provided in Appendix R to the Report of CNS SG/24 for proactive measures;

b) States are also encouraged to join the small working group for finding the left-out gaps and in preparing the regional ATSEP human factor guidance material



Introduction

1.2

In response to the abovementioned conclusion, the State Letter Ref.: T 3/9.9- AP022/21 (CNS) dated 26 January 2021 on subject Addressing Human Factor Issues of ATSEP was sent by ICAO APAC Office. States/Administrations were requested to nominate expert(s) to join the small working group proposed by the above Conclusion for preparing the regional ATSEP human factors guidance material.



Introduction

1.3

In response, Eight (8) States/Administrations (China, Hong Kong China, India, Indonesia, Japan, Republic of Korea, Singapore, and Thailand) nominated the experts, and the ad-hoc group was formed with the participants from Eight (8) States/Administrations and one International Organization namely International Federation of Air Traffic Safety Electronics Associations (IFATSEA) in April 2021.

The ad-hoc group is being led by IFATSEA.



Introduction

1.4

The Kick-off meeting of ad-hoc group was held on 30th June 2021. After Kick off meeting, the group is having Monthly periodical meeting on last week of Wednesday of each month.

1.5

This paper summarized the major discussions held in four meetings of ad-hoc group till September 2021.



Task ID	TASK	Col-Lead	Starting Date	Duration	Finishing Date	Meeting	% Completed
0201	Human Factors Guidance Material		30-Jun-21	21	30-Jun-21		
1	Kick Start meeting	FATHA	30-Jun-21	1	30-Jun-21	Done	100%
2	Addressing the gaps		01-Jul-21	87	31-Oct-21		
2.1	Factors	AL	01-Jul-21	44	31-Aug-21		
2.1.1	ERG		01-Jul-21	22	31-Jul-21	Done	100%
2.1.2	Workload		01-Jul-21	22	31-Jul-21	Done	100%
2.1.3	Stops		01-Jul-21	22	31-Jul-21	Done	100%
2.1.4	SMR cycles		01-Jul-21	22	31-Jul-21	Done	100%
2.1.5	Continuous Stress		01-Aug-21	22	31-Aug-21	Done	100%
2.1.6	Team work		01-Aug-21	22	31-Aug-21	Done	100%
2.1.7	HR policies		01-Aug-21	22	31-Aug-21	Done	100%
2.1.8	Incidents		01-Aug-21	22	31-Aug-21	Done	100%
2.1.9	Key factors	AL	01-Sep-21	43	31-Oct-21	Done	50%
2.2	Control measures	AL	01-Sep-21	43	31-Oct-21	Done	50%
		AL	01-Sep-21	43	31-Oct-21	Done	50%
		AL	01-Sep-21	43	31-Oct-21	Done	50%
		AL	01-Oct-21	21	31-Oct-21	27-Oct	
			01-Oct-21	21	31-Oct-21	27-Oct	

Roadmap and timeline – June 2021

2.1

The ad-hoc group have gathered necessary data and kicked off the deliberations on 30th June 2021.

After deliberations, a road map with timelines and monthly online meeting was adopted by the group. As on today, total four meetings of group have been done. Next meeting is scheduled on 27th October 2021.



Presentations and deliberations

2.2

The ad-hoc group has been deliberating and updating the further action to be taken regularly. The ad-hoc group has completed all the sub-tasks as per the timeline.

2.3

Each ad-hoc group meeting was supplemented by appropriate presentations so that all the members in the ad-hoc group can contribute well.

2.4

The ad-hoc group deliberated for finding the gaps, addition, deletion and for any modification on the IFATSEA report presented in the CNS SG/24.



Tasks completed

2.5

The ad-hoc group immediate task of finding the gaps on the IFATSEA's report will be completed by 31st October 2021.



Tasks completed – July 2021

2.6

So far, the ad-hoc group has discussed the following group of factors that add Stress and Fatigue to ATSEP.

- 1. Knowledge, Skills, Attitude, Competency, and technology optimization.*
- 2. Workload management.*
- 3. Procedures, Information, Tools and Practices.*
- 4. Duty time limitation –Shift (day/night/late).*



Tasks completed – August 2021

2.6

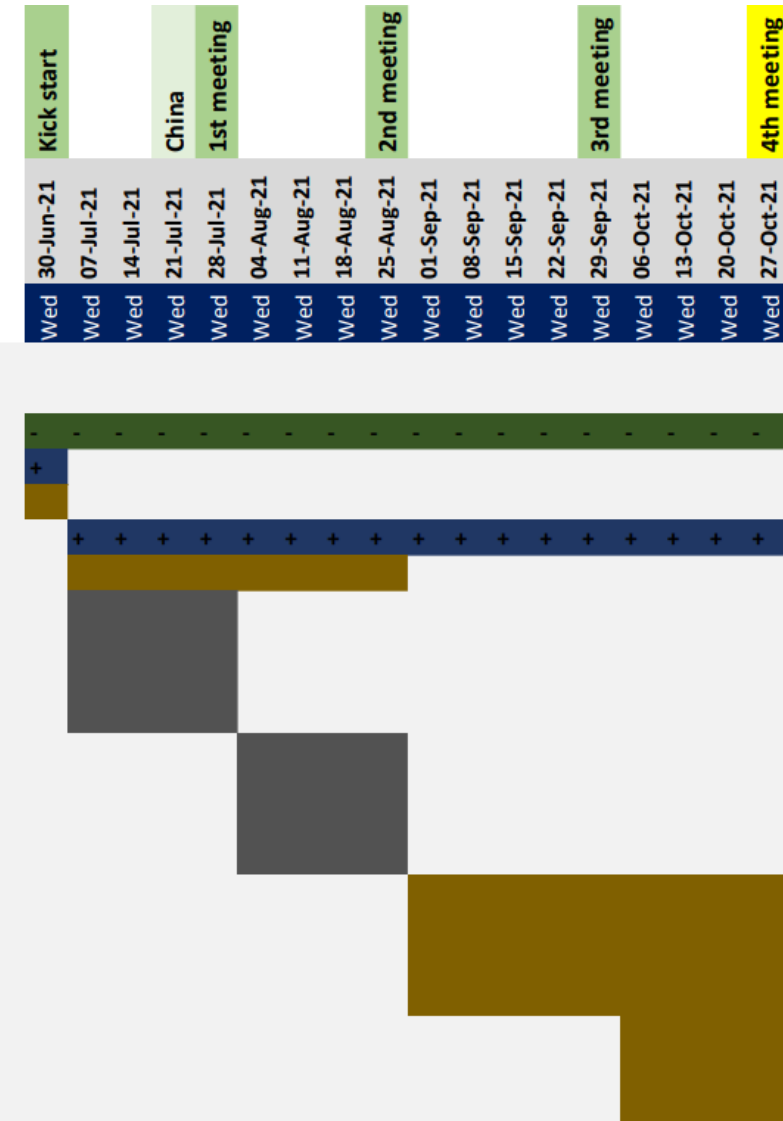
So far, the ad-hoc group has discussed the following group of factors that add Stress and Fatigue to ATSEP.

- 5. Stress, Fatigue, Pressure, Time pressure and deadlines.*
- 6. Lack of knowledge, communication, teamwork, and leadership.*
- 7. Selection, HR, and other policies.*
- 8. Workspace facilities / environment. The task completed is provided in Appendix A.*

Human factors Guidance Material

Working Group APAC

Start date 30 June 2021
 End Date 30 June 2022
 Planned completion date 30 June 2022
 Expected Completion date 30 June 2022



Task ID	TASK	Col-Lead	Starting Date	Duration	Finishing Date	Meeting Status	% Completed
GOAL	Human factors Guidance Material		30-Jun-21	262	30-Jun-22		
1	Kick Start meeting		30-Jun-21	1	30-Jun-21	Done	100%
1.1	Kick Start meeting	IFATSEA	30-Jun-21	1	30-Jun-21		
2	Addressing the gaps		01-Jul-21	87	31-Oct-21		
2.1	Factors	All	01-Jul-21	44	31-Aug-21		
2.1.1	KSC		01-Jul-21	22	31-Jul-21	Done	100%
2.1.2	Workload		01-Jul-21	22	31-Jul-21	Done	100%
2.1.3	Tools		01-Jul-21	22	31-Jul-21	Done	100%
2.1.4	Shift cycles		01-Jul-21	22	31-Jul-21	Done	100%
2.1.5	Contunued Stress		01-Aug-21	22	31-Aug-21	Done	100%
2.1.6	Team work		01-Aug-21	22	31-Aug-21	Done	100%
2.1.7	HR policies		01-Aug-21	22	31-Aug-21	Done	100%
2.1.8	Facilities		01-Aug-21	22	31-Aug-21	Done	100%
2.1.9	Key factors	All	01-Sep-21	43	31-Oct-21	Done	50%
2.2	Counter measures	All	01-Sep-21	43	31-Oct-21	Done	50%
2.3	Priority Actions	All	01-Sep-21	43	31-Oct-21	Done	50%
2.4	Benefits	All	01-Sep-21	43	31-Oct-21	Done	50%
2.5	Covid-19	All	01-Oct-21	21	31-Oct-21	27-Oct	
2.6	Any other gaps	All	01-Oct-21	21	31-Oct-21	27-Oct	
2.7	Consolidation (2.1 to 2.6)	All	01-Oct-21	21	31-Oct-21	27-Oct	





Tasks to be completed – October 2021

2.7

The ad-hoc group has initiated a discussion on the effective counter measures and ANSPs' resilience through counter measures in September 2021 meeting and it will continue the deliberations in October 2021 meeting.



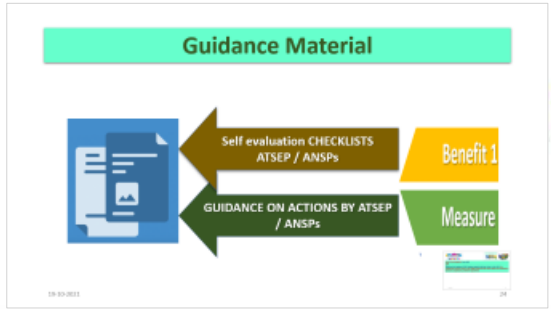
(SFMD) Stress Factors Mapping Document								
Benefit 1 (ANSPs / ATSEP)						...		
Measure 1			Measure 2			...		
Key issue 1		Key issue 2		Key issue 3		...		
Factors 1	Factors 2	Factors 3	Factors 4	Factors 5	Factors 6	Factors 7	Factors 8	...



Tasks to be completed – November 2021

2.8

The ad-hoc group will start discussion on the best practices across the ANSPs and will prepare a SFMD (Stress Factors Mapping Document) by 30th November 2021. This SFMD will have mapping of key stress factors, effective counter measures, existing best practices, and long-term benefits to ANSPs on addressing the human factors of ATSEP.



Tasks to be completed –June 2022

2.9

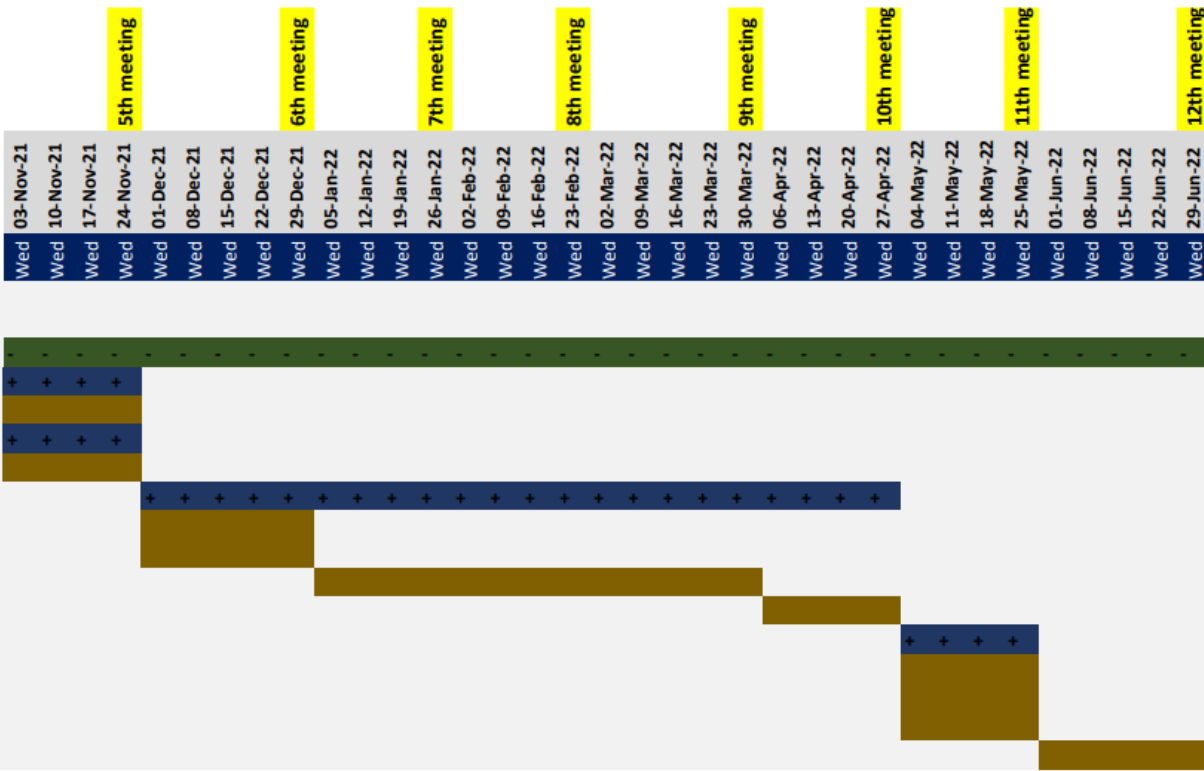
Drafting of the Regional ATSEP Guidance material will start from 1st Dec 2021 in a collaborative manner based on the SFMD prepared by the ad-hoc group. The summary of task to be completed is provided in Appendix B.

Appendix B to CNS SG/25 - WP/18

Human factors Guidance Material
 Start date 30 June 2021
 End Date 30 June 2022
 Planned completion date 30 June 2022
 Expected Completion date 30 June 2022

Working Group APAC

Task ID	TASK	Col-Lead	Starting Date	Duration	Finishing Date	Meeting Status	% Completed
GOAL	Human factors Guidance Material		30-Jun-21	262	30-Jun-22		
3	Best Practices		01-Nov-21	22	30-Nov-21		
3.1	Best practices	All	01-Nov-21	22	30-Nov-21		
4	Stress Factors Mapping Document		01-Nov-21	22	30-Nov-21		
4.1	Mapping (2.1 to 2.6 & 3.1)	All	01-Nov-21	22	30-Nov-21		
5	Guidance material preparation		01-Dec-21	108	30-Apr-22		
5.1	Draft structure proposal	IFATSEA	01-Dec-21	23	31-Dec-21		
5.2	Finalizing the structure	All	01-Dec-21	23	31-Dec-21		
5.3	Collaboration and development	All	01-Jan-22	64	31-Mar-22		
5.4	Review and finalizing	All	01-Apr-22	21	30-Apr-22		
5	Report submission		01-May-22	22	31-May-22		
5.1	Draft report proposal	IFATSEA	01-May-22	22	31-May-22		
5.2	Review and finalizing	All	01-May-22	22	31-May-22		
5.3	Submission of the report	IFATSEA	01-May-22	22	31-May-22		
5.4	Time buffer	All	01-Jun-22	22	30-Jun-22		





Tasks to be completed –June 2022

2.10

The planned tasks are to be completed by June 2022 as per the current timeline, and if done so without any hindrance or exceptional unavoidable situation, the ad-hoc group would present and submit the draft Regional ATSEP guidance material to CNS SG/26.



3. ACTION BY THE MEETING

3.1

The meeting is invited to:

- a) note the information on the progress of the ad-hoc group and its collaborative efforts*
- b) discuss any other matter as appropriate.*



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(SFMD) Stress Factors Mapping Document

Benefit 1 (ANSPs / ATSEP)

...

Measure 1

Measure 2

...

Key issue 1

Key issue 2

Key issue 3

...

**Factors
1**

**Factors
2**

**Factors
3**

**Factors
4**

**Factors
5**

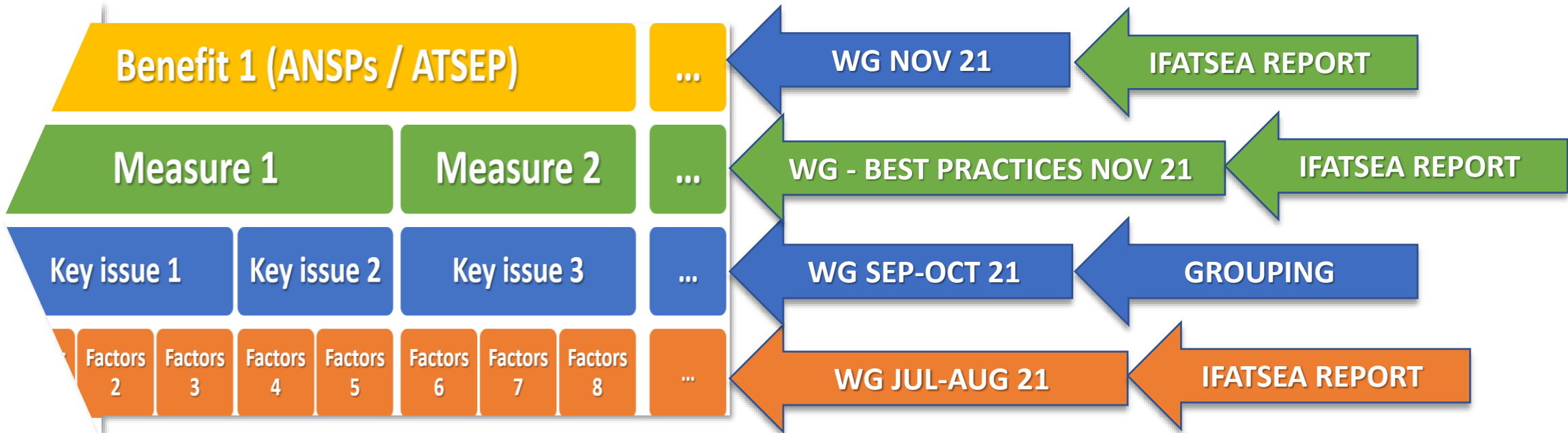
**Factors
6**

**Factors
7**

**Factors
8**

...

(SFMD) Stress Factors Mapping Document



Guidance Material



**Self evaluation CHECKLISTS
ATSEP / ANSPs**

**GUIDANCE ON ACTIONS BY ATSEP
/ ANSPs**

Benefit 1

Measure

