



9th International  
Abilympics  
Bordeaux 2016

# Vocational Skills Contest

## V30 Aircraft Maintenance

### 1. Task Assignment

The task consists in the completion of 3 modules.

- Module n°1: removal, disassembly, verification, reassembly and reinstallation of an engine sub-assembly. Contestants will use the technical maintenance sheet and will fill out a verification report. The module will be performed on a turbojet's engine or starter.

- Module n°2: Troubleshooting and repair. Contestants will identify a problem using the report written by the pilot after his flight; they will establish a diagnostic and make recommendations for restoration to proper flight capabilities. The module will be performed on a helicopter. The jury will change the problem after each contestant's turn.

- Module n°3: Visual inspection. Contestants will follow each point of the procedure sheet to prepare the aircraft for its first flight of the day. They will fill out an inspection report. The module will be performed on a helicopter.

### 2. Allocated time: 6h00

6 hours of competition.

- Module 1: 3 hours and 30 minutes.
- Module 2: 1 hour and 30 minutes.
- Module 3: 1 hour.



### 3. Requirements

- The jury will collect all electronic means of communication contestants may have (Cell phone, tablet computers...) at the beginning of the competition. They will be returned to their owners once the competition is finished.
- Any contestant caught cheating, talking to someone from the public or using a communication device will suffer a penalty of 5 points for the first transgression. A second transgression will lead to an exclusion from the contest.
- Contestants are not allowed to lend or borrow any equipment for the duration of the competition.
- Contestants must respect the safety rules. While completing modules n°1 and 3, they will notify the judge in charge of safety before activating any of the aircraft's controls.

### 4. Procedure

**Day -1 (March 24<sup>th</sup>):** On the day before the competition, contestants will be welcomed by the members of the jury. A briefing about the organization of the contest and the safety rules will be arranged.


**Day 1 (March 25<sup>th</sup>):** Contestants will have 3 hours and 30 minutes to complete module n°1.

**Day 2 (March 26<sup>th</sup>):** Contestants will have 1 hours and 30 minutes to complete module n°2, and 1 hour to complete module n°3.






## 5. List of tools to be brought for each contestant

Contestants will bring their Personal Protective Equipment (PPE), their working clothes and a standard mechanical toolbox. Specific equipment will be provided by the organization.

N°	Tool	Photo	Notes	Qty
01	Safety shoes		Contestant's choice	1 pair
02	Working clothes		Contestant's choice	1
03	Work gloves		Contestant's choice	1
04	Safety glasses		Contestant's choice	1
05	Toolbox		Standard set of tools for mechanical work	1

## 6. List of the facilities and equipment installed at the contest site

N°	Equipment	Photo
01	Helicopter	
02	Engine	 <p>Grille de protection</p> <p>Arbre de l'hélice</p> <p>Tuyère</p> <p>Allumeur</p> <p>boîtier d'allumage</p>
03	Micro Turbojet starter	

04	Workstation	
05	Additional tools to be provided by the organization	<div data-bbox="790 427 1193 996"> <p><b>INVENTAIRE DU POSTE 1</b></p> <ul style="list-style-type: none"> <li>CLES MIXTES DE: 8 A 21 ET 23+26+28</li> <li>DOUILLES DE: 6 A 22</li> <li>1 JEU DE CHASSE GOUPILLE</li> <li>1 JEU DE TOURNEVIS MIXTE</li> <li>3 PINCES DE BRUXELLE</li> <li>1 PINCE COUPANTE</li> <li>1 PINCE COUDE</li> <li>1 PINCE UNIVERSELLE</li> <li>1 PINCE A FREINER</li> <li>1 BOITE A CIRCLPIS</li> <li>1 BURIN</li> <li>1 MARTEAU</li> <li>1 MAILLET</li> <li>UNE PAIRE DE LUNETTE</li> <li>UNE PAIRE DE GANTS</li> </ul>  </div> <div data-bbox="790 1003 1193 1489"> <p><b>INVENTAIRE DU POSTE 12</b></p> <ul style="list-style-type: none"> <li>CLES MIXTES DE 8 A 21 ET 26</li> <li>DOUILLES DE: 6 A 22</li> <li>1 JEU DE CHASSE GOUPILLE</li> <li>1 JEU DE TOURNEVIS MIXTE</li> <li>3 PINCES DE BRUXELLE</li> <li>1 PINCE COUPANTE</li> <li>1 PINCE COUDE</li> <li>1 PINCE UNIVERSELLE</li> <li>1 PINCE A FREINER</li> <li>1 BOITE A CIRCLPIS</li> <li>1 BURIN</li> <li>1 MARTEAU</li> <li>1 MAILLET</li> <li>UNE PAIRE DE LUNETTE</li> <li>UNE PAIRE DE GANTS</li> </ul>  </div> <div data-bbox="790 1496 1193 1989"> <p><b>INVENTAIRE DU POSTE 15</b></p> <ul style="list-style-type: none"> <li>COFFRET DOUILLES S.200DP FACOM 10 A 32</li> <li>EMPREINTES E.120 BP822805</li> <li>1 PINCE COUPANTE</li> <li>UNE PINCE UNIVERSELLE</li> <li>1 PINCE A FREINER</li> <li>1 BURIN</li> <li>UNE PAIRE DE LUNETTE</li> <li>UNE PAIRE DE GANTS</li> </ul>  </div>

## 7. Evaluation Criteria



N°	Items to be Evaluated	Scoring Scale
<b>MODULE1 : 60/100</b>		
01	Preparation of the work station	5
02	Search of the proper documentation	5
03	Respect of the protocols specified in the procedure sheet	14
04	Appropriate use of the tools	2
05	Respect of safety rules and protocols	14
06	Complete technical investigation report	10
07	System conformity	10
<b>MODULE 2 : 25/100</b>		
08	Correct identification of the problem	10
09	Repairs validated by the conformity of the system	15
<b>MODULE 3 : 15/100</b>		
10	Inspection of each of the procedure sheet's points	5
11	Identification of the different systems' anomalies	10
	<b>Total</b>	<b>100</b>