Journal of Open Aviation Science (20xx), **x**, 1–5 doi:10.74800/joas.x.xxxx

JOAS

10

11

12

13

15

17

18

19

21

22

23

25

26

27

28

29

32

ARTICLE

# Creating an open community to support reusable and reproducible aviation science

Junzi Sun,  $^{*,1,2}$  Xavier Olive,  $^{1,3}$  Martin Strohmeier,  $^{4,5}$  Enrico Spinielli,  $^6$  Tejas Puranik,  $^7$  and Nàme with mañý diačriticś (font check)  $^8$ 

(Received 1 April 2022; revised 1 May 2022; accepted 10 May 2022; first published online 20 May 2022)

#### **Abstract**

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Keywords: Aviation; reproducibility; transparency; data; software; re-science

Abbreviations: ATM: Air Traffic Managment, ADS-B: Automatic Dependent Surveillance-Broadcast

#### 1. Introduction

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language. Some example open open-source research data [2] and tools [1, 3]. The end result is in Figure 1: nice, isn't it?

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match

<sup>&</sup>lt;sup>1</sup>Joint first authors

<sup>&</sup>lt;sup>2</sup>Faculty of Aerospace Engineering, Delft University of Technology, Netherlands

<sup>&</sup>lt;sup>3</sup>Office National d'Etudes et de Recherches Aérospatiales, France

<sup>&</sup>lt;sup>4</sup>OpenSky Network, Switzerland

<sup>&</sup>lt;sup>5</sup>University of Oxford, UK

<sup>&</sup>lt;sup>6</sup>EUROCONTROL, Belgium

<sup>&</sup>lt;sup>7</sup>NASA Ames Research Center, USA

<sup>&</sup>lt;sup>8</sup>University of Syldavia

<sup>\*</sup>Corresponding author: j.sun-1@tudelft.nl

<sup>©</sup> TU Delft Open Publishing 20xx. This is an Open Access article, distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike licence (https://creativecommons.org/licenses/by-nc-sa/4.0/)

the language. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language. See also Table 1.

2. Method

Callsigns are nice in tt mode AFR88HH and  $\rho = 1$  inline

**Paragraph title** Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

2.1 Method 1

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.



Figure 1. JOAS Logo

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A

71

72

78

79

80

85

87

90

91

92

blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language. <sup>1</sup>

2.2 Method 2

#### 2.2.1 Method 2-1

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

$$E = mc^2 (1)$$

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Parameter	Notation	Remarks
name	-	engine common identifier
manufacture	-	-
bpr	λ	bypass ratio
pr	-	pressure ratio
max_thrust	$T_0$	maximum static thrust, sea level (unit: N)
fuel_c3	$C_{ m ff3}$	fuel flow coefficient, 3rd order term (unit: kg/s)
fuel_c2	$C_{ m ff2}$	fuel flow coefficient, 2nd order term (unit: kg/s)
fuel_c1	$C_{ m ff1}$	fuel flow coefficient, 1st order term (unit: kg/s)
cruise_thrust	$T_{cr}$	thrust at the top of climb (unit: N)
cruise_mach	$M_{\rm cr}$	cruise Mach number for the thrust condition
cruise_alt	$h_{\rm cr}$	cruise Mach altitude for the thrust condition (unit: ft)

**Table 1.** Engine performance parameters

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in

<sup>&</sup>lt;sup>1</sup>This is how a footnote works.

of the original language. There is no need for special content, but the length of words should match the language.

3. Conclusion

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

This is the second paragraph. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

And after the second paragraph follows the third paragraph. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

After this fourth paragraph, we start a new paragraph sequence. Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

#### **Authors contributions**

Junzi Sun: Conceptualization, Methodology, Software, Writing- Original draft Xavier Olive: Data curation, Writing- Original draft Martin Strohmeier: Visualization, Investigation

Enrico Eninelli: Visualization, Investigation, Writing- Reviewing and Editing

Enrico Epinielli: Visualization, Investigation, Writing- Reviewing and Editing

Tejas Puranik: Visualization, Writing- Reviewing and Editing

138

143

146

147

152

153

154

155

157

161

162

163

164

168

169

170

171

172

## Acknowledgement

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

References

- [1] Xavier Olive. "Traffic, a toolbox for processing and analysing air traffic data". In: Journal of Open Source Software 4.39 (2019), pp. 1518–1. DOI: 10.21105/joss.01518.
- [2] Matthias Schäfer, Martin Strohmeier, Vincent Lenders, Ivan Martinovic, and Matthias Wilhelm. "Bringing up OpenSky: A large-scale ADS-B sensor network for research". In: *IPSN-14 Proceedings of the 13th International Symposium on Information Processing in Sensor Networks.* IEEE. 2014, pp. 83–94.
- [3] Junzi Sun, Jacco M Hoekstra, and Joost Ellerbroek. "OpenAP: An open-source aircraft performance model for air transportation studies and simulations". In: *Aerospace* 7.8 (2020), p. 104.

## Appendix 1. Supplementary figures

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

# Appendix 2. Supplementary data tables

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like "Huardest gefburn"? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

## Reproducibility statement

Information on how to access supplementary data to reproduce this research, including access to open data set, source code for the research, source code for the figures, etc.